Società di Committenza Regionale

MINISTERO DELLA CULTURA

MINISTERO DELL'INTERNO

CITTA' DI TORINO

Piano Nazionale per gli investimenti Complementari al Piano Nazionale di Ripresa e Resilienza (PNRR). Programma D.P. Piano degli investimenti strategici sui siti del patrimonio culturale, edifici e aree naturali

DIREZIONE OPERE PUBBLICHE

COMMITTENTE	COMUNE
SCR Piemonte	**Città di TORINO**

LIVELLO PROGETTUALE

PROGETTO ESECUTIVO

CUP	TITOLO INTERVENTO
C14E21001220001	**TORINO, IL SUO PARCO, IL SUO FIUME: MEMORIA E FUTURO" REALIZZAZIONE DELLA BIBLIOTECA CIVICA E RIQUALIFICAZIONE DEL TEATRO NUOVO**
CODICE OPERA **22044D02**	

ELABORATO N.	TITOLO ELABORATO
IE520	**Relazione di Calcolo - Impianti Elettrici e Speciali**

DATA EMISSIONE	SCALA	AREA PROGETTUALE
22/05/2025	-	**IMPIANTI ELETTRICI E SPECIALI**

FORMATO DI STAMPA	CODICE GENERALE ELABORATO	NOME FILE
A4	22044D02_3_0_E_IE_00_CD_520_0	22044D02_3_0_E_IE_00_CD_ 520_0

VERSIONE	DATA	DESCRIZIONE	REDATTO	CONTROLLATO
0	22/05/2025	Emissione Progetto Esecutivo a seguito dei pareri espressi dagli Enti preposti in CdS	MAN	MAN

IMPRESA AGGIUDICATARIA

cobar

COBAR S.p.A.
Sede Legale:Via Selva 101;
Sede Amm.: Via Monte Pollino 3
70022 Altamura (Ba) Italy

RTP PROGETTAZIONE

Capogruppo Mandataria:

ABDR Architetti Associati S.r.l.

Mandanti:

MJW STRUCTURES

Manens S.p.A.

Dott. Geol. Roberto Salucci

Biobyte s.r.l. Ing. Maria Cairoli
Dott.Enrico Moretti

Ing. Roberto De Lieto Vollaro
Ing. Alessandro Leonardi

Arch. Laura Calcagnini

Integrazione Prestazioni Specialistiche:
Arch. Michele Beccu - ABDR Architetti Associati S.r.l.

Progettazione Categoria Edilizia - Beni Tutelati:
Arch. Filippo Raimondo - ABDR Architetti Associati S.r.l.

Progettazione Categoria Strutture
Ing. Massimo Majowiecki - MJW STRUCTURES

Progettazione Impianti Elettrici e Speciali
Ing. Massimo Cadorin - Manens S.p.A.

Progettazione Impianti Meccanici
Ing. Viliam Stefanutti - Manens S.p.A.

Geologo

Consulenti Acustica sala
Consulenti Comfort acustico ambientale

Consulenti Progettazione Antincendio

Consulente Ambiente/DNSH

Giovane Professionista:
Arch. Valentina Bianchi - ABDR

BIM Manager
Arch. Antonella Antonilli - ABDR

Coordinatore Tecnico del Progetto
Arch. Nicola Bissanti - ABDR

Timbri e Firme

Documento firmato digitalmente

COMMITTENTE

SCR PIEMONTE S.p.A.

ORGANISMO DI CONTROLLO

CONTECO S.p.A.

Responsabile del Procedimento:
Arch. Bruno Smania

Responsabile di Commessa:
Ing. Tiziana Costanzo

INDICE

1 PREMESSA....4
2 CALCOLO DI DIMENSIONAMENTO RETI ELETTRICHE E VERIFICA COORDINAMENTO DELLE PROTEZIONI....5
2.1 Software di calcolo....5
2.2 Calcolo delle correnti di carico....6
2.3 Calcolo delle correnti di cortocircuito....6
2.4 Dimensionamento delle condutture....6
2.5 Determinazione della portata della conduttura....6
2.6 Tarature dei dispositivi di protezione....7
2.7 Coefficienti di correzione....7
2.8 Portata effettiva di un cavo – posa in aria....7
2.9 Portata effettiva di un cavo – posa interrata....7
2.10 Miglioramento del fattore di correzione....8
2.11 Caratteristiche delle apparecchiature....8
2.12 Verifica della selettività....9
2.13 Verifica del dimensionamento delle linee di MT in relazione al cortocircuito....9
2.14 Verifica del dimensionamento delle linee di MT in relazione alla portata....10
2.15 Verifica sul relè direzionale di terra....10
2.16 Risultati e conclusioni....10
3 VALUTAZIONE DEL RISCHIO DI FULMINAZIONE DA SCARICHE ATMOSFERICHE 11
3.1 Premessa....11
3.2 Riferimenti normativi....11
3.3 Calcoli e risultati....11
4 DIMENSIONAMENTO DELL'IMPIANTO DI DISPERSIONE A TERRA....14
4.1 Riferimenti normativi....14
4.2 Configurazione generale dell'impianto di dispersione....14
4.3 Valutazione della resistenza di terra....14
5 VERIFICHE ILLUMINOTECNICHE....16
5.1 Aree interne....16
5.2 Riferimenti normativi e parametri illuminotecnici di riferimento....16
5.3 Calcoli e risultati....18
6 VERIFICA IMPIANTO DI DIFFUSIONE SONORA EVAC....19

6.1 Dati di ingresso 19

6.2 Risultati 19

ALLEGATO 1 – TABELLE RIASSUNTIVE DELLE PROTEZIONI E DEI CAVI PER OGNI UTENZA

ALLEGATO 2 – VERIFICHE ILLUMINOTECNICHE

ALLEGATO 3 – VALUTAZIONE DEL RISCHIO DI FULMINAZIONE DA SCARICHE ATMOSFERICHE

ALLEGATO 4 – VERIFICHE IMPIANTO DI DIFFUSIONE SONORA EVAC

1 PREMESSA

Lo scopo del presente documento consiste nell'illustrare calcoli di dimensionamento degli impianti elettrici e speciali a servizio del Teatro Nuovo di Torino, che nascerà all'interno del complesso di Torino Esposizioni situato tra corso Massimo D'Azeglio e Corso Petrarca a Torino.
In particolare, si riportano i seguenti calcoli e dimensionamenti:

- valutazione della potenza elettrica massima contemporanea assorbita e verifica delle taglie delle principali apparecchiature;
- calcoli di dimensionamento delle linee elettriche;
- valutazione del rischio di fulminazione da scariche atmosferiche;
- dimensionamento degli alimentatori EN54-4 a servizio dell'impianto di rivelazione incendi;
- verifiche illuminotecniche.

2 CALCOLO DI DIMENSIONAMENTO RETI ELETTRICHE E VERIFICA COORDINAMENTO DELLE PROTEZIONI

Il dimensionamento delle linee elettriche BT di distribuzione e la scelta delle protezioni delle stesse è stato eseguito rispettando quanto prescritto dalle norme
CEI 64-8 (Impianti elettrici utilizzatori a tensione nominale non superiore a 1000 V in corrente alternata e a 1 500 V in corrente continua), CEI-UNEL 35024 (Cavi elettrici isolati con materiale elastomerico o termoplastico per tensioni nominali non superiori a 1000 V in corrente alternata e 1500 V in corrente continua) e CEI-UNEL 35026 (fattori di correzione della portata in funzione alle condizioni e al tipo di posa).
In particolare, è stato seguito il seguente criterio:

- calcolo/stima della potenza alimentata (comprensiva dei coefficienti di utilizzazione e contemporaneità della linea), del tipo di alimentazione (monofase o trifase), della tensione di alimentazione e della lunghezza della linea;
- calcolo della corrente di impiego della linea;
- scelta del dispositivo di protezione e i relativi relè (termico, magnetico, differenziale, ecc.);
- scelta del tipo di isolamento e materiale del cavo;
- dimensionamento della sezione del cavo conduttore in base alle condizioni di regime termico (portata effettiva con almeno il 20% di riserva) e di regime in corto circuito;
- calcolo delle correnti di corto circuito massime ad inizio linea (trifase, fase-fase, fase-neutro e fase-terra);
- calcolo delle correnti di corto circuito minime a fine linea (trifase, fase-fase, fase-neutro e fase-terra);
- calcolo delle c.d.t.% a fine linea;
- scelta del potere d'interruzione della protezione (potere di interruzione nominale estremo in corto circuito Icu, secondo norme CEI EN 60898 e CEI EN 60947.2);
- verifica del coordinamento delle protezioni;
- verifica della selettività di protezioni in cascata.

Le modalità rispettano quanto descritto dalla norma CEI 64-8 per la verifica dei cavi ed il coordinamento delle protezioni. I calcoli di verifica del coordinamento delle protezioni sono stati effettuati in conformità alla Norma CEI 11-25 "Calcolo delle correnti di corto circuito nelle reti trifasi a corrente alternata" (2° ed. 2001 +EC1 +EC2) e i simboli utilizzati sono quanto più possibile conformi ad essa.
La verifica del coordinamento delle protezioni è stata effettuata sui quadri elettrici previsti in progetto.

2.1 Software di calcolo

I calcoli delle correnti di corto circuito, delle c.d.t.%, la verifica delle portate in funzione del tipo di posa e tutti gli altri calcoli utili alla verifica delle protezioni e delle linee sono stati eseguiti mediante supporto tecnico informatico (software Ampère), il quale analizza la rete impostata con:

- verifica della coerenza della rete;

- calcolo di Load Flow (modulo e fase delle correnti, potenze attiva e reattiva, ecc.);
- associazione delle protezioni agli oggetti da proteggere;
- calcolo delle correnti di guasto (minime e massime), simmetriche ed asimmetriche, in ogni nodo della rete;
- calcolo della verifica delle protezioni tenendo conto del vincolo di coordinamento (selettività e back-up).

2.2 Calcolo delle correnti di carico

Il software calcola le correnti di carico che passano nei rami della rete utilizzando il calcolo del Load Flow.
Più in dettaglio il software considera costanti:

- per la fornitura: la tensione e la fase;
- per i generatori la tensione nominale e la potenza attiva o, a scelta, le potenze attiva e reattiva nominali;
- per i carichi: le potenze attiva e reattiva nominali (nodo PQ, a potenza attiva e reattiva costanti) o, a scelta, la corrente nominale e il fattore di potenza.

Il programma calcola, quindi, le tensioni nei nodi della rete e, di conseguenza, le correnti che fluiscono nei rami.

2.3 Calcolo delle correnti di cortocircuito

Il software calcola le correnti di corto circuito massime e minime secondo:

- il metodo dei componenti simmetrici;
- la norma IEC 60909-1;
- la norma IEC 61363-1.

Nei calcoli effettuati nel progetto è stato scelto il metodo delle componenti simmetriche, il quale permette di calcolare la corrente di cortocircuito trifase, fase/fase, monofase e fase/terra. Il metodo delle componenti simmetriche consente di calcolare il valore della corrente di corto circuito simmetrica (variabile nel tempo) e il valore di cresta massimo.

2.4 Dimensionamento delle condutture

Il dimensionamento delle condutture è stato effettuato, in accordo con la normativa CEI 64-8, sulla base dei seguenti criteri:

a – portata massima della conduttura (regime stazionario);
b – massima energia specifica sopportabile della conduttura (regime di corto circuito);
c – verifica della protezione contro contatti indiretti a fine linea;
d – massima caduta di tensione.

2.5 Determinazione della portata della conduttura

a – portata massima della conduttura (regime stazionario)
Per quanto attiene il primo criterio (portata massima della conduttura) debbono essere soddisfatte le relazioni:
$IZ \geq In \geq IB$

1,45 Iz ≥ If
essendo:
IZ: portata della conduttura nelle effettive condizioni di posa (secondo norme 64-8, CEI-UNEL 35024/1 e CEI-UNEL 35026);
In: corrente nominale (regolata) del dispositivo di protezione;
Ib: corrente di impiego (carico) della conduttura;
If: corrente convenzionale di funzionamento del dispositivo di protezione.

2.6 Tarature dei dispositivi di protezione

I valori di riferimento per la taratura degli interruttori di protezione sono la portata effettiva e la corrente d'impiego.
La soglia di taratura In del relé termico è sempre significativamente inferiore al valore della portata effettiva del cavo.
Il valore delle correnti di carico IB, per ciascuna linea elettrica di alimentazione, è stato calcolato in base alle potenze elettriche delle varie utenze, ottenute dai dati di targa delle apparecchiature in campo (apparecchiature elettriche, lampade e reattori, utenze meccaniche, ecc.) oppure stimate in maniera puntuale.
Il valore della portata effettiva IZ, per ciascuna linea elettrica di alimentazione, deve essere superiore alla corrente di regolazione del relè termico della protezione a monte. Il calcolo della IZ si basa sulle considerazioni che seguono.

2.7 Coefficienti di correzione

Per la scelta dei coefficienti di riduzione della portata di un cavo si è fatto riferimento alla norma CEI-UNEL 35024/1 "Cavi elettrici isolati con materiale elastomerico o termoplastico per tensioni nominali non superiori a 1000 V in corrente alternata e a 1500 V in corrente continua – Portate di corrente in regime permanente per posa in aria" e alla norma CEI-UNEL 35026 "Cavi elettrici isolati con materiale elastomerico o termoplastico per tensioni nominali di 1000 V in corrente alternata e 1500 V in corrente continua – Portate di corrente in regime permanente per posa interrata".

2.8 Portata effettiva di un cavo – posa in aria

La portata effettiva in Ampere di ciascun cavo è stata ricavata in base alla relazione prevista dall'art. 2.1 della Norma CEI-UNEL 35024/1:

IZ = Io * k1 * k2

dove

Io: è il dato di partenza per il calcolo di verifica ed è riferito alla portata in aria a 30° ricavata dalle tabelle I o II della Norma CEI-UNEL 35024/1 in funzione del metodo di installazione previsto;

k1: fattore di correzione per temperature ambiente diverse da 30 °C ricavato dalla tabella III della Norma CEI-UNEL 35024/1;

k2: fattore di correzione per più circuiti installati in fascio o strato ricavato dalle tabelle IV, V, VI della Norma CEI-UNEL 35024/1.

2.9 Portata effettiva di un cavo – posa interrata

Per cavi posati entro cavidotti interrati si fa riferimento alla norma CEI-UNEL 35026. Valgono considerazioni analoghe per la posa in aria, considerando i due fattori correttivi aggiuntivi

(denominati k3 e k4) e definiti dalla norma. Pertanto la portata effettiva del cavo, nel caso di posa interrata, risulta pari a:

IZ = Iz' * k3 * k4

dove

Iz': è il valore della portata del cavo in oggetto, con riferimento alla posa in aria e (si veda il punto precedente);

k3: fattore di correzione per profondità di interramento diverse dal valore di 0,8m (rif. articolo 2.6 tabella IV);

k4: fattore di correzione per resistività termica del terreno diversa da 1,5 K*m/W (rif. articolo 2.7 tabella V).

2.10 Miglioramento del fattore di correzione

Non è stato preso in considerazione nessun miglioramento del fattore di correzione prescelto, anche se consentito dalla Norma CEI-UNEL 35024/1, come stabilito dagli articoli 4.3 "Conduttori debolmente caricati" e 4.4: "Carico intermittente e variabile". Tale scelta si può considerare a favore della sicurezza.

b – massima energia specifica sopportabile della conduttura (regime di corto circuito norma CEI 64-8);

K2S2 ≥ Icc2 t

dove:

Icc: valore della corrente di corto circuito al punto considerato;

K: coefficiente che per conduttore di rame ed isolamento in gomma etilenpropilenica (massima temperatura di servizio 90°C e massima temperatura in condizioni di corto circuito 250°C) vale 143;

t: tempo di eliminazione del guasto del dispositivo di protezione [s];

S: sezione del cavo [mm2].

c – verifica della protezione contro contatti indiretti a fine linea;

La verifica è stata fatta considerando la corrente di cortocircuito minima (a fine linea, a temperatura massima raggiungibile dal cavo) che deve essere maggiore della corrente d'intervento della relativa protezione posta a monte della linea, entro un tempo di interruzione di:

- 5s per circuiti di distribuzione non terminale
- 0.2s per circuiti terminali con tensione fase-terra = 230Vca

secondo quanto indicato nella norma CEI 64-8, art. 413.1.3 "Sistemi TN".

d – massima caduta di tensione

Il limite massimo di accettazione per le linee di distribuzione dal trasforamtore fino all'utenza terminale è stato posto pari a 4%, considerando una caduta di tensione media tra trasforamtore a quadro gererale di sottocabina pari a 1,5%, da quadri generali di sottocabina ai quadri di piano 1%, da quadri di piano al quadri di locale 1% e infine distribuzione interna del locale 0,5%.

La scelta della sezione dei cavi elettrici si è basata sui criteri sopra descritti e, comunque, in maniera da garantire una distribuzione delle c.d.t.% simile e uniforme sui montanti di tutti i circuiti di distribuzione principale.

I criteri utilizzati e i calcoli effettuati per il dimensionamento delle condutture sono stati applicati e verificati con alimentazione elettrica da rete di consegna.

2.11 Caratteristiche delle apparecchiature

Per effettuare i calcoli si è fatta una scelta di "marca" delle apparecchiature, secondo la quale si è resa possibile l'acquisizione delle caratteristiche delle apparecchiature scelte mediante l'esame

della relativa documentazione tecnica (cavi, dispositivi di protezione e comando, ecc.). In fase di esecuzione si potranno proporre soluzioni diverse purché equivalenti, in termini di coordinamento e di selettività, con quelle previste nel presente progetto.

La scelta del potere di interruzione dei dispositivi di protezione si basa sulla corrente Icu dei dati di targa degli stessi, per la quale deve risultare sempre.

Icu ≥ Icc

dove:

Icu = potere d'interruzione nominale estremo in corto circuito della protezione (secondo norme CEI EN 60898 e CEI EN 60947-2);

Icc = corrente di corto circuito massima nel punto di inserimento del dispositivo di protezione.

2.12 Verifica della selettività

Sono state eseguite le verifiche della selettività relativamente a:

Dorsali di alimentazione dai quadri generali e di piano.

Circuiti in continuità assoluta.

Circuiti di servizi di sicurezza (illuminazione di sicurezza, segnaletica di sicurezza, ecc.).

Le verifiche di selettività si intendono a partire dal primo interrittore del quadro generale di pertinenza, all' ultimo elemtento di impianto specificato.

In particolare è stata verificata la selettività ipotizzando un corto circuito fase-fase o fase-neutro a discrezione se la linea è rispettivamente di tipo trifase o monofase.

Le medesime verifiche dovranno essere effettuate in sede di progettazione costruttiva in relazione alle apparecchiature scelte.

2.13 Verifica del dimensionamento delle linee di MT in relazione al cortocircuito

Con riferimento ai valori massimi della corrente di cortocircuito e del tempo di intervento delle protezioni per cortocircuito, deve essere verificato il rispetto della seguente condizione, riferita ai cavi da 50 mm2 relativi alle linee MT di Utente (si vedano gli schemi riportati in tav. IE_00_BI_534):

$I^2*T_i <= (K*S)^2$ [A^2*s], essendo:

- I: il valore della corrente di cortocircuito massima prevedibile in qualsiasi ramo della rete MT, coincidente di fatto con la corrente di cortocircuito trifase massima in corrispondenza del punto di fornitura dell'Ente Distributore, essendo trascurata cautelativamente la sua riduzione a causa dell'impedenza di fase delle linee in cavo (I=16,0*103 [A] come riportato nel documento "Relazione di calcolo" del PFTE, assunta come dato di ingresso);
- T_i: il tempo di intervento massimo delle protezioni in corrispondenza di tale evento, imposto da parte dell'Ente Distributore (Ti<=0,12 s, considerando l'intervento istantaneo delle protezioni in caso di cortocircuito);
- K: l'energia specifica passante del cavo RG26H1M16 18/30 kV (K=152)
- S: la sezione del cavo

Con i valori sopra indicati, risulta:

$(256*10^6)*(0,12+0,07)<=(152*50)^2=(57,76)^2*106$ da cui

$48,64*10^6 <= 57,76*10^6$

Le linee di MT in cavo sopra indicate risultano pertanto protette in relazione alla corrente di cortocircuito massima.

2.14 Verifica del dimensionamento delle linee di MT in relazione alla portata

Si riporta nel seguito la verifica relativa alla linea di collegamento tra QMTR e QGMT, costituita da cavo RG26H1M16 18/30 kV 3x1x50 posato entro cavidotti ad incasso a pavimento al piano interrato.

La portata termica in tali condizioni, è:

Iz[A]=240 [A].

La corrente massima transitante in tale linea, corrispondente alla potenza massima contemporanea di ~ 700 [kVA] (si veda lo schema del QGBT) è: I=18,4 [A]

La condizione I<Iz è ampiamente rispettata, pertanto la linea in oggetto risulta idonea all'alimentazione del carico previsto. Dovrà essere opportunamente implementata una taratura del relè MT per protezione da sovraccarico, in modo tale da garantire la condizione: I<Ith<Iz, essendo:

Ith: la corrente di soglia della funzione di "protezione linea da sovraccarico" del relè di MT.

2.15 Verifica sul relè direzionale di terra

Come indicato nella norma CEI 0-16 (par. 8.512.2), la protezione 67N (direzionale di terra) non è prevista in quanto il contributo alla corrente di guasto a terra (~ 0,25A) dovuto alle linee in cavo di Utente risulta trascurabile, essendo la lunghezza totale ~ 50m.

2.16 Risultati e conclusioni

I calcoli effettuati con il programma di calcolo Ampère verificano quanto definito dalle normative di riferimento e quanto riportato nei dati di progetto.

Si ritiene, pertanto, che le apparecchiature previste in progetto, quali:

apparecchiature di cabina (trasformatori MT/BT, ecc.);

dispositivi di protezione;

cavi elettrici e blindosbarre di distribuzione; siano correttamente dimensionate.

Si riportano nell'**Allegato 1** tabelle riassuntive delle protezioni e dei cavi per ogni utenza" i report generati programma di calcolo Ampère ottenuti dai calcoli effettuati.

3 VALUTAZIONE DEL RISCHIO DI FULMINAZIONE DA SCARICHE ATMOSFERICHE

3.1 Premessa

Vengono riportati nel seguito i calcoli per la valutazione del rischio da fulminazioni di origine atmosferica e per la scelta delle eventuali precauzioni da adottare per l'edificio in oggetto.

3.2 Riferimenti normativi

I calcoli e le valutazioni sono stati eseguiti con riferimento alle seguenti norme:

- CEI EN 62305-1 - CEI 81-10/1 (2013) - "Protezione contro i fulmini – parte 1: Principi generali";
- CEI EN 62305-2 - CEI 81-10/2 (2013) - "Protezione contro i fulmini – parte 2: Valutazione del rischio";
- CEI EN 62305-3 - CEI 81-10/3 (2013) - "Protezione contro i fulmini – parte 3: Danno materiale alle strutture e pericolo per le persone";
- CEI EN 62305-4 - CEI 81-10/4 (2013) - "Protezione contro i fulmini – parte 4: Impianti elettrici ed elettronici nelle strutture;
- CEI 81-29 "Linee guida per l'applicazione delle norme CEI EN 62305";
- CEI EN 62858 (2020) - Densità di fulminazione. Reti di localizzazione fulmini (LLS) - Principi generali.

3.3 Calcoli e risultati

I calcoli per la valutazione del rischio sono stati elaborati con il programma DEHN support Toolbox 23/07.

In funzione della posizione geografica dell'edificio (determinata con coordinate di latitudine e longitudine formato WGS84), si è considerato un valore di fulminazioni / (anno x km2) che, secondo i dati forniti dall'Ente normatore (CEI), risulta pari a Ng: 5,37 fulmini / (anno x km2).

Si allega di seguito il documento riportante tale valore, richiesto all'ente normatore:

CEI - Comitato Elettrotecnico

Milano,05/07/2023 18:22:56

Valore Ng: 5.37

VALIDITA' DEI DATI: fino al 31/12/2027

Informazioni sulla posizione

Latitudine:	45.04867512869066° N
Longitudine:	7.681652714900184° E
Comune:	Torino
Codice Istat:	001272
Provincia:	TO
Regione:	Piemonte

Condizioni di utilizzo e validità dei dati

- *Il valore di N_G riportato dall'applicazione è calcolato esclusivamente sulla base delle coordinate geografiche (Latitudine e Longitudine, formato WGS84) fornite dall'utente. Il CEI - Comitato Elettrotecnico Italiano non si assume alcuna responsabilità in merito all'affidabilità degli strumenti utilizzati per la rilevazione delle coordinate stesse, ivi incluso lo strumento gratuito "CEI FindIT" messo a disposizione a puro titolo di ausilio e/o verifica. Parimenti, è responsabilità dell'utente la verifica di precisione e accuratezza di eventuali rilevatori GPS utilizzati per rilevazioni sul campo*
- *I valori di N_G forniti dall'applicazione derivano da rilevazioni ed elaborazioni effettuate da Météorage facendo ricorso allo stato dell'arte della tecnologia e delle conoscenze tecnico-scientifiche in materia*
- *CEI ProDiS possiede le caratteristiche indicate dalla norma europea CEI EN 62858 affinché i dati resi disponibili possano essere utilizzati nell'analisi del rischio prevista dalla norma europea CEI EN 62305-2*
- *I dati relativi alle indicazioni geografiche fornite dall'applicazione fanno riferimento ai database geografici messi a disposizione dall'ISTAT. Tali dati si riferiscono alla situazione di Comuni, Province e Regioni al 01 gennaio 2022*
- *La precisione delle conversioni di coordinate comporta un errore all'incirca di 100 m. L'applicazione è costruita in modo da tenere in considerazione le inevitabili approssimazioni dovute al calcolo numerico e, pertanto, i valori forniti risultano sempre conservativi.*
- *Il valore di N_G fornito è legato esclusivamente alle coordinate inserite: non esiste alcuna relazione tra il valore di N_G ed il Comune in cui ricadono le coordinate geografiche (WGS84)*
- *Piccole variazioni di coordinate possono portare a valori diversi di N_G a causa della natura discreta della mappa ceraunica su cui insiste l'applicazione. Si raccomanda, pertanto, di verificare con la massima attenzione possibile i valori inseriti, nonché di evitare il riuso del dato per posizioni distanti più di 100 m (tolleranza all'errore)*
- *Dati interpolati e/o dedotti con qualsiasi algoritmo a partire da quelli forniti dall'applicazione non hanno alcuna attinenza con il modello fisico sottostante e, pertanto, non devono essere utilizzati nei calcoli*
- *I dati di probabilità ceraunica (N_G) sono di proprietà di CEI - Comitato Elettrotecnico Italiano e di Météorage. Senza il consenso scritto da parte del CEI - Comitato Elettrotecnico Italiano, è vietata la divulgazione dei suddetti dati, anche a titolo gratuito, sotto qualsiasi forma e con qualsiasi mezzo, fatti salvi i fini progettuali e/o di verifica per cui avviene la consultazione*
- *È fatto esplicito divieto di ricostruire il database dei dati ceraunici, anche parzialmente, a partire dai dati forniti dall'applicazione.*
- *Per tutto quanto non esplicitamente citato nelle presenti condizioni, si rimanda alla Licenza d'uso dei prodotti CEI (https://pages.ceinorme.it/it/licenzaduso-it/)*

CEI - Comitato Elettrotecnico Italiano Via Saccardo, 9 – 20134 Milano – Italy
Tel +39 02 21006.217 - Fax +39 02 21006.222 - prodis@ceinorme.it - www.ceinorme.it - Partita IVA 06357810156

Per l'edificio in oggetto sono state considerate le perdite indicate nella seguente tabella:

perdita di vite umane (L1)	SI
perdita di servizio pubblico (L2)	NO
perdita di patrimonio culturale insostituibile (L3)	NO
perdita economica (L4)	NO

Per tali perdite sono stati considerati i seguenti valori di rischio tollerabile (RT):

- Perdite L1: rischio tollerabile R1=1*10-5.

Nell'**allegato 3** del presente elaborato vengono riportati i dati di ingresso, i calcoli e i risultati ottenuti.

Risulta che non è necessaria l'adozione di un impianto di protezione contro scariche atmosferiche.

Al fine di ridurre il rischio di sovratensioni pericolose all'interno dell'impianto elettrico, tutti i quadri elettrici di bassa tensione saranno dotati di scaricatori di sovratensione:

- scaricatori di tipo combinato sul power center;
- scaricatori di classe I+II in ogni quadro elettrico;
- scaricatori per impianti speciali sulle centrali.

4 DIMENSIONAMENTO DELL'IMPIANTO DI DISPERSIONE A TERRA

Vengono riportati nel seguito i calcoli per il dimensionamento dell'impianto di dispersione a terra dell'edificio in oggetto.

4.1 Riferimenti normativi

I calcoli e le valutazioni sono stati eseguiti con riferimento alle seguenti norme:

- CEI 99-5 (2015) – "Guida per l'esecuzione degli impianti di terra delle utenze attive e passive connesse ai sistemi di distribuzione con tensione superiore a 1 kV in c.a."
- CEI EN 50522 - CEI 99-3 (2011) – "Messa a terra degli impianti elettrici a tensione superiore a 1 kV in c.a.".

4.2 Configurazione generale dell'impianto di dispersione

L'impianto di dispersione a terra dell'edificio è costituito da:

- un dispersore a maglia realizzato in tondo di acciaio zincato (Ø=10mm) posato a pavimento del piano interrato e collegato elettricamente a tutti i pilastri di fondazione della struttura;
- un dispersore con corda di rame nuda (S=50mmq) posata su scavo e interrata attorno alla struttura dell'edificio. Il dispersore sarà reso accessibile per tutte le necessarie connessioni mediante piastre in rame entro pozzetti ispezionabili.
- un dispersore intenzionale ottenuto mediante puntazze verticali in acciaio zincato (L=3m), interrate e rese accessibili tramite pozzetti ispezionabili dedicati, comprensivi di barra di terra (piastra) di collegamento in rame.

4.3 Valutazione della resistenza di terra

Dispersori a picchetto

Ciascun dispersore a picchetto presenta la seguente resistenza di terra:

$$R_P = (\rho / 2\pi L) * \ln(4L/d), \text{ essendo:}$$

- RP1 [Ω]: resistenza di terra del singolo dispersore a picchetto;
- ρ [Ωm]: resistività del terreno;
- L [m]: lunghezza del dispersore;
- D [m]: diametro del picchetto (misura assunta: 0,020m).

Sostituendo nella relazione i seguenti valori:

- ρ = 200 [Ωm];
- L = 3 m,

si ricava:

$$\mathbf{R_P} = (200 / 2\pi*3)*\ln(4*3/0{,}020) = \mathbf{67{,}94\ \Omega}$$

Resistenza di terra Rt dei 8 dispersori a picchetto collocati nell'area circostante l'edificio (considerati in parallelo, essendo l'interdistanza superiore al doppio della profondità di infissione):

$$\mathbf{R_P} = RP1/8 = 67{,}94/8 = \mathbf{8{,}49\ \Omega}$$

Dispersori perimetrali

Il valore della resistenza di terra del dispersore in oggetto viene determinato facendo riferimento alla formula di seguito riportata, relativa ad un dispersore ad anello (rif. norma CEI 99-5, par. 12.5):

$R_D = (\rho E / \pi 2*D)*\ln(2\pi D/d)$, dove:

- R_D [Ω]: resistenza di terra del dispersore ad anello;
- ρE [Ωm]: resistività del terreno;
- D [m]: diametro equivalente del dispersore ad anello (D=L/π dove L è la lunghezza complessiva dell'anello di dispersione);
- d [m]: diametro del conduttore di dispersione, costituito da tondo di acciaio zincato (misura assunta: 0,010m).

Sostituendo nella relazione i seguenti valori:

- D= (291,6)/ π = 92,87 m,

si ricava:

$R_D = (250 / \pi 2*92,87)*\ln(2\pi*92,87/0,01) = 4.7\ \Omega$.

Resistenza di terra totale

La resistenza complessiva dell'impianto di dispersione (Rt) viene determinata considerando il parallelo delle resistenze di terra precedentemente determinate.

Si ottiene pertanto:

Rt $= 1 / [(1 / R_D) + (1 / R_P)] = 1/ [(1 / 4,7) + (1 / 8,49)] =$ **3,25 Ω**

5 VERIFICHE ILLUMINOTECNICHE

5.1 Aree interne

Il presente paragrafo riporta le simulazioni illuminotecniche dei principali ambienti interni al fine di verificare il dimensionamento illuminotecnico.
Le simulazioni, eseguite con software Dialux, ricalcano le condizioni previste a progetto in termini di area, layout degli ambienti e apparecchi illuminanti (disposizione, potenza, caratteristiche fotometriche).
L'allegato riporta la verifica sia in condizioni di illuminazione ordinaria, sia quelle in condizioni di illuminazione di emergenza (rimangono accesi solo gli apparecchi dedicati all'illuminazione di emergenza alimentati da rete di sicurezza).
A ogni superficie dei locali in esame è stato assegnato un coefficiente di riflessione standard (coerente con le indicazioni normative) per valutare il comportamento rispetto alla luce incidente. Generalmente i coefficienti impostati sono i seguenti: pavimento 0,2 pareti 0,5, soffitto 0,7/0,8.
I calcoli sono stati eseguiti considerando un coefficiente di deprezzamento dell'emissione delle sorgenti luminose, denominato "fattore di manutenzione", pari a 0,80: tale valore permette di prendere in considerazione la riduzione del flusso luminoso che avviene nel tempo, a causa del naturale invecchiamento dei componenti degli apparecchi e del deposito di sporco (considerando comunque interventi di pulizia programmati) al fine di ottenere valori illuminotecnici mantenuti.
In tutti i casi le fotometrie utilizzate ed i valori di flusso luminoso impostato ricalcano le caratteristiche ottiche degli apparecchi previsti in progetto.

5.2 Riferimenti normativi e parametri illuminotecnici di riferimento

Illuminazione ordinaria aree interne

Nella tabella che segue sono riportati i parametri illuminotecnici di illuminazione ordinaria per le attività o le aree di compito visivo individuate nell'edificio. La normativa di riferimento è la UNI EN 12464-1 (2021) "Illuminazione dei posti di lavoro – Parte 1: posti di lavoro in interni", come indicato precedentemente.

Parametri illuminotecnici illuminazione ordinaria				
N. riferimento	**Descrizione prospetto - Tipo di zona, compito o attività**	$\bar{E}_m$ **(lx)**	U_o	R_{UGL}
9.1	*Zone di circolazione all'interno di edifici* Corridoi e aree di circolazione	100	0,40	28
9.2	Zone di circolazione all'interno di edifici Scale, scale mobili, tappeti mobili	100	0,40	25
9.4	*Zone di circolazione all'interno di edifici* Area di fronte a montacarichi, ascensori, e scale mobili	200	0,40	25
9.6	Ingresso di edificio con tettoia	30	0,40	-
10.4	*Spazi comuni all'interno di edifici - Sale di riposo, infermeria e pronto soccorso* Guardaroba (zona), lavatoi, bagni, spogliatoi, armadietti, docce, lavabo e servizi igienici	200	0,40	25
11.1	*Spazi comuni all'interno di edifici - Sale di controllo* Locali impianti, sala interruttori	200	0,40	25
12.1	*Spazi comuni all'interno di edifici - Magazzini / magazzini refrigerati* Magazzini e aree di stoccaggio	100	0,40	25
34.2	*Uffici*	500	0,60	19

Parametri illuminotecnici illuminazione ordinaria				
N. riferimento	**Descrizione prospetto - Tipo di zona, compito o attività**	**$\bar{E}_m$ (lx)**	**U_o**	**R_{UGL}**
	Scrittura, digitazione, lettura, elaborazione dati			
34.5.1	*Uffici* Sale conferenze e riunioni	500	0,60	19
36.1	*Luoghi pubblici - Spazi comuni* Ingressi	100	0,40	22
36.2	*Guardaroba*	200	0,40	25
36.4	*Biglietterie*	300	0,60	22
37.1	*Banco della reception, della cassa, del portiere*	300	0,60	22
37.6	*Sala conferenze*	500	0,60	19
38.1	*Sale di prova*	300	0,60	22
38.2	*Camerini*	300	0,60	22
38.3	*Poltrone per gli spettatori - manutenzione, pulizia*	200	0,50	22

NOTE:

- Em: illuminamento medio orizzontale nel piano di lavoro (h=0 m nel caso di corridoi, scale, ingressi, ecc.; h= 0,8/0,85 m nel caso degli altri compiti visivi, per gli scaffali è un illuminamento medio verticale);
- Uo: uniformità di illuminamento, ovvero rapporto tra illuminamento minimo e illuminamento medio sul piano di lavoro o sul compito visivo;
- UGRL: indice di abbagliamento unificato.

L'impianto di illuminazione ordinaria dovrà garantire nel compito visivo il raggiungimento dei parametri illuminotecnici previsti dalla normativa vigente e indicati nella tabella.

Illuminazione di sicurezza

L'impianto sarà conforme a quanto prescritto dalla norma UNI EN 1838. L'impianto di illuminazione di sicurezza sarà realizzato utilizzando parte degli apparecchi illuminanti dell'impianto di illuminazione ordinaria alimentate da sorgenti di sicurezza e cavi resistenti al fuoco e vie cavi dedicate. Tale soluzione permetterà di ottenere illuminamenti medi molto maggiori dei limiti normativi richiesti; tale scelta è comunque giustificata dalla particolarità dell'ambiente e dall'elevato numero di persone presenti.
Di seguito si riportano i valori da rispettare:

- Emin ≥ 1 lux sul piano di calpestio lungo la mezzeria - Vie d'uscita, percorsi di fuga (corridoi, filtri, scale, percorsi di fuga nelle zone comuni);
- Emin ≥ 0,5 lux a livello pavimento - Valore antipanico negli ambienti (laboratori, bagni disabili, antibagni, zone in vicinanza dei percorsi di esodo, locali tecnici, ecc.);
- Emin ≥ 5 lux sul piano verticale in corrispondenza dei dispositivi antincendio e dei punti di chiamata antincendio.

Sono inoltre rispettati i valori di illuminamento per i locali di pubblico spettacolo - D.M. 19/08/96 che prevedono: 5 lx ad 1 m di altezza nelle vie di esodo e almeno 2 lx negli ambienti accessibili al pubblico. L'autonomia dell'impianto sarà maggiore o uguale a 1h.

Illuminazione aree esterne

Nella tabella che segue sono riportati i parametri illuminotecnici di illuminazione ordinaria per le attività o le aree di compito visivo individuate nelle are esterne all'edificio. La normativa di riferimento è la UNI EN 12464-2 "Illuminazione dei posti di lavoro – Parte 2: posti di lavoro in esterni".

Parametri illuminotecnici illuminazione ordinaria				
N. riferimento	**Descrizione prospetto - Tipo di zona, compito o attività**	**$\bar{E}_m$ (lx) required**	**U_o**	**R_{UGL}**
5.1.1	Marciapiedi riservato ai pedoni	5	0,25	50
5.1.4	Passaggi pedonali, punti di manovra, carico e scarico per i veicoli	50	0,40	50
5.1.5	Pulizia e manutenzione	50	0,25	50

In aggiunta ai riferimenti di cui sopra viene tenuta in riferimento anche la UNI 10819:2021 "Luce e illuminazione - Impianti di illuminazione esterna - Requisiti per la limitazione della dispersione verso l'alto del flusso luminoso".

5.3 Calcoli e risultati

I dati di ingresso, i calcoli e i risultati ottenuti sono riportati nello specifico **Allegato 2**.
Il report dei risultati di calcolo contiene:

- Principali caratteristiche tecniche degli apparecchi illuminanti utilizzati nella specifica verifica;
- Indicazione delle superfici di calcolo rappresentative delle zone del compito visivo;
- Rappresentazione grafica dei valori d'illuminamento tramite curve isolux o valori puntuali nelle superfici di calcolo.

6 VERIFICA IMPIANTO DI DIFFUSIONE SONORA EVAC

Il presente paragrafo riporta i calcoli effettuati per la verifica di rispondenza dell'impianto di diffusione sonora di emergenza (EVAC) ai requisiti della norma UNI ISO 7240-19.
La norma richiede in particolare che vengano rispettati i seguenti requisiti minimi:

- STI (Speech Transmission Index) minimo misurato pari a 0.45;
- STI medio misurato parti a 0.5;
- pressione sonora (ponderato A) maggiore di 10dB rispetto al rumore ambientale e comunque compreso tra 65dBA e 105 dBa.

Il raggiungimento di tali requisiti è strettamente legato alle proprietà acustiche degli ambienti in cui è presente l'impianto, pertanto, ove il metodo prescrittivo non è applicabile (tipicamente ambienti a geometria complessa, ambienti altamente riverberanti, etc.) si procede ad effettuare una simulazione acustica a verifica del rispetto normativo.

6.1 Dati di ingresso

L'impianto di diffusione sonora EVAC è stato verificato in particolare all'interno della sala principale che ospita gli spettatori. La diffusione dei messaggi di emergenza è affidata a n.12 diffusori a colonna installati a parete. Per la descrizione tecnica dell'impianto si rimanda alla Relazione Specialistica Impianti Elettrici e Speciali.

Per procedere alla simulazione sono stati considerati i seguenti parametri di ingresso:

- layout planimetrico della sala;
- posizione dei diffusori di progetto;
- tap setting dei diffusori a 50W (linee a 100V ad alta impedenza);
- **tempo di riverbero della sala pari a 1,3s** (ottenuto da simulazioni acustiche dedicate);
- **rumore di fondo pari a 65dB** (vista l'impossibilità di avere una misura reale, tale dato è stato stimato dal Prospetto 24 della norma UNI 9795:2021);
- altezza dell'ascoltatore pari a 1,5m;
- altezza media della sala pari a 10,5m.

La simulazione acustica è stata effettuata con l'ausilio del software EASE Evac® (versione 2.0.60).

6.2 Risultati

I risultati della simulazione sono i seguenti:

- STI medio: 0,66 ± 0,04
- STI massimo: 0,74;:
- STI minimo: 0,51;
- Pressione sonora diretta (pesata-A): 84,6 dB ±1,1 dB
- Pressione sonora totale (pesata-A): 87,3 dB ±0,5 dB

Risultano pertanto rispettati i requisiti minimi normativi richiesti.
Nell'**Allegato 4** è presente il report di calcolo completo estratto dal software di simulazione.

ALLEGATO 1

TABELLE RIASSUNTIVE DELLE PROTEZIONI E DEI CAVI PER OGNI UTENZA

Unit	Ib<=In<=Iz	BC check	Ver. I²t	Imag<Imagmax	Indirect touching	VDTot (Ib)
CABINA GEN - BT QGBT-TR1						
QGBT-TR1 C-01	569,9<=1600 A (Ib<=In)	66 >= 48,1 kA		16000 < 20373 A	Verified	0,06<=2 %
QGBT-TR1 C-03	11,9<=63<=70 A	70 >= 48,1 kA	Verified	126 < 3871 A	Verified	0,198<=2 %
QGBT-TR1 C-00	3,79<=63<=88,9 A	100 >= 48,2 kA	Verified	126 < 2626 A	Verified	0,122<=2 %
QGBT-TR1 C-02	216,5<=400<=742,4 A	70 >= 48,2 kA	Verified	4000 < 15467 A	Verified	-0,022<=4 %
QGBT-TR1 C-04	86,2<=160<=195,3 A	70 >= 48,2 kA	Verified	1600 < 2430 A	Verified	1,39<=2 %
QGBT-TR1 C-05	68,6<=160<=195,3 A	70 >= 48,2 kA	Verified	1600 < 2682 A	Verified	1,07<=2 %
QGBT-TR1 C-06	32,1<=63<=88,9 A	70 >= 48,2 kA	Verified	126 < 1203 A	Verified	1,33<=2 %
QGBT-TR1 C-07	22,4<=40<=88,9 A	70 >= 48,2 kA	Verified	200 < 871,5 A	Verified	1,85<=2 %
QGBT-TR1 C-08	0<=63 A (Ib<=In)	70 >= 48,2 kA		126 < 20373 A	Verified	0,06<=2 %
QGBT-TR1 C-09	27,5<=400<=520 A	70 >= 48,2 kA	Verified	4000 < 13571 A	Verified	0,126<=2 %
QGBT-TR1 C-10	64,2<=80<=88,9 A	70 >= 48,2 kA	Verified	400 < 2125 A	Verified	1,34<=2 %
QGBT-TR1 C-11	176,4<=250<=280 A	70 >= 48,2 kA	Verified	1250 < 6215 A	Verified	0,915<=2 %
QGBT-TR1 C-12	176,4<=250<=373,1 A	70 >= 48,2 kA	Verified	1250 < 4672 A	Verified	1,23<=2 %
QGBT-TR1 C-13	208,5<=250<=373,1 A	70 >= 48,2 kA	Verified	1250 < 5984 A	Verified	1,08<=2 %
QGBT-TR1 C-14	24,1<=100<=151,2 A	70 >= 48,2 kA	Verified	500 < 2023 A	Verified	0,408<=2 %
QGBT-TR1 C-15	209,9<=250<=373,1 A	70 >= 48,2 kA		Indirect contacts prot	Verified	0<=2 %
QGBT-TR1 C-16	0<=400 A (Ib<=In)	70 >= 48,2 kA		4000 < 20373 A	Verified	0,06<=2 %
QGBT-TR1 C-17	0<=250 A (Ib<=In)	70 >= 48,2 kA		1250 < 20373 A	Verified	0,06<=2 %
QGBT-TR1 C-18	0<=160 A (Ib<=In)	70 >= 48,2 kA		800 < 20373 A	Verified	0,06<=2 %
QGBT-TR1 C-19	0<=63 A (Ib<=In)	70 >= 48,7 kA		504 < 20373 A	Verified	0,06<=2 %
CABINA GEN - BT QGBT-TR2						
QGBT-TR2 C-01	246,3<=3285 A (Ib<=In)	66 >= 46,1 kA		Indirect contacts prot	Verified	0,018<=2 %
QGBT-TR2 C-00	0<=63<=88,9 A	100 >= 46,1 kA	Verified	126 < 2631 A	Verified	0,018<=2 %
QGBT-TR2 C-16	0<=400 A (Ib<=In)	70 >= 46,1 kA		4000 < 19856 A	Verified	0,018<=2 %
QGBT-TR2 C-17	0<=400 A (Ib<=In)	70 >= 46,1 kA		4000 < 19856 A	Verified	0,018<=2 %
QGBT-TR2 C-02	4,81<=32<=37,8 A	70 >= 46,1 kA	Verified	400 < 574,3 A	Verified	0,673<=2 %

Unit	Ib<=In<=Iz	BC check	Ver. I²t	Imag<Imagmax	Indirect touching	VDTot (Ib)
QGBT-TR2 C-03	4,81<=32<=37,8 A	70 >= 46,1 kA	Verified	400 < 736,7 A	Verified	0,526<=2 %
QGBT-TR2 C-04	4,81<=32<=37,8 A	70 >= 46,1 kA	Verified	400 < 431,6 A	Verified	0,889<=2 %
QGBT-TR2 C-05	15,6<=32<=70 A	70 >= 46,1 kA	Verified	400 < 1165 A	Verified	0,604<=4 %
QGBT-TR2 C-06	7,91<=32<=52,5 A	70 >= 46,1 kA	Verified	400 < 594,1 A	Verified	0,604<=2 %
QGBT-TR2 C-07	6,09<=32<=52,5 A	70 >= 46,1 kA	Verified	400 < 469,9 A	Verified	0,632<=2 %
QGBT-TR2 C-08	93,7<=160<=280 A	70 >= 46,1 kA	Verified	800 < 3458 A	Verified	0,927<=2 %
QGBT-TR2 C-09	14,4<=32<=37,8 A	70 >= 46,1 kA	Verified	400 < 736,7 A	Verified	1,12<=2 %
QGBT-TR2 C-10	4,81<=32<=37,8 A	70 >= 46,1 kA	Verified	400 < 736,7 A	Verified	0,476<=2 %
QGBT-TR2 C-11	85<=90<=195,3 A	70 >= 46,1 kA	Verified	450 < 5835 A	Verified	0,406<=2 %
QGBT-TR2 C-12	9,62<=40<=123,2 A	70 >= 46,1 kA	Verified	200 < 3054 A	Verified	0,133<=2 %
QGBT-TR2 C-13	63,7<=175<=324,8 A	70 >= 46,1 kA	Verified	875 < 5122 A	Verified	0,434<=2 %
QGBT-TR2 C-14	85,5<=90<=607 A	70 >= 46,1 kA	Verified	450 < 8982 A	Verified	0,25<=2 %
QGBT-TR2 C-15	1,95<=63<=507 A	70 >= 46,1 kA	Verified	315 < 13845 A	Verified	0,021<=2 %
QGBT-TR2 C-18	0<=250 A (Ib<=In)	70 >= 46,1 kA		1250 < 19856 A	Verified	0,018<=2 %
QGBT-TR2 C-19	0<=250 A (Ib<=In)	70 >= 46,1 kA		1250 < 19856 A	Verified	0,018<=2 %
QGBT-TR2 C-20	216,5<=400<=742,4 A	70 >= 46,1 kA	Verified	4000 < 15281 A	Verified	-0,057<=4 %
CABINA GEN - BT QSCAB-N						
QSCAB-N C-00	11,9<=63 A (Ib<=In)				Verified	0,198<=2 %
QSCAB-N C-01	2,89<=25<=49 A	6 >= 5,41 kA	Verified	250 < 1205 A	Verified	0,366<=4 %
QSCAB-N C-02	4,81<=16<=22 A	15 >= 10,3 kA	Verified	160 < 846,9 A	Verified	0,459<=4 %
QSCAB-N C-03	1,44<=16<=25 A	6 >= 5,41 kA	Verified	160 < 846,8 A	Verified	0,293<=4 %
QSCAB-N C-04	1,44<=16<=25 A	6 >= 5,41 kA	Verified	160 < 846,8 A	Verified	0,297<=4 %
QSCAB-N C-05	1,59<=10 A (Ib<=In)	6 >= 5,4 kA		100 < 3870 A	Verified	0,223<=3 %
QSCAB-N C-09	1,44<=6<=25 A	6 >= 5,41 kA	Verified	60 < 846,8 A	Verified	0,297<=4 %
QSCAB-N C-10	1,44<=6<=25 A	6 >= 5,41 kA	Verified	60 < 846,8 A	Verified	0,338<=4 %
QSCAB-N C-11	4,33<=10<=18,5 A	6 >= 5,41 kA	Verified	100 < 555,8 A	Verified	0,757<=4 %
QSCAB-N C-12	4,81<=16<=25 A	6 >= 5,41 kA	Verified	160 < 846,8 A	Verified	0,562<=4 %

Unit	Ib<=In<=Iz	BC check	Ver. I²t	Imag<Imagmax	Indirect touching	VDTot (Ib)
QSCAB-N C-13	1,2<=10<=18,5 A	6 >= 5,41 kA	Verified	100 < 555,8 A	Verified	0,383<=4 %
QSCAB-N C-14	0<=32 A (Ib<=In)	15 >= 10,3 kA		320 < 3871 A	Verified	0,198<=4 %
QSCAB-N C-15	0<=16 A (Ib<=In)	15 >= 10,3 kA		160 < 3871 A	Verified	0,198<=4 %
QSCAB-N C-16	0<=32 A (Ib<=In)	6 >= 5,41 kA		320 < 3870 A	Verified	0,179<=4 %
QSCAB-N C-17	0<=16 A (Ib<=In)	6 >= 5,41 kA		160 < 3870 A	Verified	0,179<=4 %
QSCAB-N C-18	0<=10 A (Ib<=In)	6 >= 5,41 kA		100 < 3870 A	Verified	0,179<=4 %
AUX TR	1,59<=4,99 A (Ib<=In)				Verified	1,05<=4 %
QSCAB-N C-06	4,63<=16 A (Ib<=In)	6 >= 1,52 kA		160 < 1323 A	Verified	0<=3 %
QSCAB-N C-07	4,63<=16 A (Ib<=In)	6 >= 1,52 kA		160 < 1323 A	Verified	0<=3 %
QSCAB-N C-08	4,63<=16 A (Ib<=In)	6 >= 1,52 kA		160 < 1323 A	Verified	0<=3 %
CABINA GEN - BT QEUPS-C						
SGA	1,95<=63 A (Ib<=In)				Verified	0,021<=4 %
UPS	1,95<=317,5 A (Ib<=In)				Verified	0,021<=4 %
-	1,92<=192<=634 A		Verified		Verified	0,023<=4 %
IUPSC	1,92<=192 A (Ib<=In)				Verified	0,023<=4 %
QEUPS-C C-02	0,481<=32<=37,8 A	37,5 >= 24,5 kA	Verified	Indirect contacts prot	Verified	0,179<=4 %
QEUPS-C C-01	2,41<=40<=52,5 A	37,5 >= 24,5 kA	Verified	400 < 540,2 A	Verified	0,279<=4 %
QEUPS-C C-03	0<=40 A (Ib<=In)	37,5 >= 24,5 kA		400 < 10044 A	Verified	0,023<=4 %
QEUPS-C C-04	0<=32 A (Ib<=In)	75 >= 15,3 kA		320 < 10042 A	Verified	0,023<=4 %
QEUPS-C C-05	0<=32 A (Ib<=In)	25 >= 24,5 kA		320 < 10044 A	Verified	0,023<=4 %
QEUPS-C C-06	0<=16 A (Ib<=In)	37,5 >= 24,5 kA		160 < 10044 A	Verified	0,023<=4 %
CABINA GEN - BT QSIC-E						
QESIC-E C-00	4,73<=63 A (Ib<=In)				Verified	0,18<=2 %
QESIC-E C-01	0<=63<=123,2 A	7,5 >= 4,62 kA	Verified	Indirect contacts prot	Verified	0,18<=2 %
QESIC-E C-02	0<=50<=70 A	7,5 >= 4,62 kA	Verified	500 < 580,1 A	Verified	0,18<=2 %
QESIC-E C-03	0<=16<=29,4 A	7,5 >= 4,62 kA	Verified	160 < 549,8 A	Verified	0,18<=2 %
QESIC-E C-04	0<=25<=37,8 A	7,5 >= 4,62 kA	Verified	250 < 386,6 A	Verified	0,18<=2 %

Unit	Ib<=In<=Iz	BC check	Ver. I²t	Imag<Imagmax	Indirect touching	VDTot (Ib)
QESIC-E C-05	4,81<=40<=52,5 A	7,5 >= 4,62 kA	Verified	Indirect contacts prot	Verified	0,645<=4 %
QESIC-E C-06	0<=32<=52,5 A	7,5 >= 4,62 kA	Verified	320 < 345,6 A	Verified	0,18<=2 %
QESIC-E C-07	1,12<=10 A (Ib<=In)	20 >= 2,02 kA		100 < 1486 A	Verified	0,206<=3 %
QESIC-E C-10	0<=63 A (Ib<=In)	10 >= 4,62 kA		630 < 1486 A	Verified	0,18<=4 %
QESIC-E C-11	0<=32 A (Ib<=In)	10 >= 4,62 kA		320 < 1486 A	Verified	0,18<=4 %
AUX TR	1,12<=3,32 A (Ib<=In)				Verified	0,759<=4 %
QESIC-E C-08	4,63<=16 A (Ib<=In)	6 >= 1,47 kA		160 < 1281 A	Verified	0<=3 %
QESIC-E C-09	4,63<=16 A (Ib<=In)	6 >= 1,47 kA		160 < 1281 A	Verified	0<=3 %
CABINA GEN - BT QESIC-S1						
QESIC-S1 C-01	0,505<=32<=37,8 A	15 >= 14,1 kA	Verified	448 < 725,3 A	Verified	0,322<=4 %
QESIC-S1 C-13	0,962<=32<=70 A	15 >= 14,1 kA	Verified	448 < 2666 A	Verified	0,296<=4 %
QESIC-S1 C-04	1,01<=32<=70 A	15 >= 14,1 kA	Verified	448 < 1532 A	Verified	0,319<=4 %
QESIC-S1 C-05	0,673<=32<=70 A	15 >= 14,1 kA	Verified	448 < 1532 A	Verified	0,306<=4 %
QESIC-S1 C-06	2,08<=32<=70 A	15 >= 14,1 kA	Verified	448 < 1532 A	Verified	0,359<=4 %
QESIC-S1 C-07	4,33<=32<=70 A	15 >= 14,1 kA	Verified	448 < 1532 A	Verified	0,443<=4 %
QESIC-S1 C-08	1,15<=32<=70 A	15 >= 14,1 kA	Verified	448 < 1532 A	Verified	0,294<=4 %
QESIC-S1 C-09	0,401<=32<=70 A	15 >= 14,1 kA	Verified	448 < 1532 A	Verified	0,286<=4 %
QESIC-S1 C-10	1,18<=32<=70 A	15 >= 14,1 kA	Verified	448 < 1532 A	Verified	0,329<=4 %
QESIC-S1 C-11	0<=32<=70 A	15 >= 14,1 kA	Verified	448 < 1532 A	Verified	0,287<=4 %
QESIC-S1 C-00	12,8<=317,5 A (Ib<=In)				Verified	0,287<=2 %
QESIC-S1 C-14	0,653<=10 A (Ib<=In)	20 >= 5,83 kA		100 < 4179 A	Verified	0,287<=4 %
QESIC-S1 C-12	8,05<=80<=88,9 A	25 >= 14,1 kA	Verified	1120 < 3061 A	Verified	0,345<=4 %
QESIC-S1 C-16	0,722<=10<=49 A	20 >= 5,83 kA	Verified	100 < 1244 A	Verified	0,322<=4 %
QESIC-S1 C-03	2,81<=80<=88,9 A	25 >= 14,1 kA	Verified	1120 < 3061 A	Verified	0,299<=4 %
QESIC-S1 C-17	0,481<=10<=49 A	20 >= 5,83 kA	Verified	100 < 1244 A	Verified	0,311<=4 %
QESIC-S1 C-18	4,81<=16<=36 A	20 >= 5,83 kA	Verified	160 < 866,4 A	Verified	0,65<=4 %
QESIC-S1 C-02	1,46<=32<=70 A	15 >= 14,1 kA	Verified	448 < 1532 A	Verified	0,337<=4 %

Unit	Ib<=In<=Iz	BC check	Ver. I²t	Imag<Imagmax	Indirect touching	VDTot (Ib)
QESIC-S1 C-19	0<=50 A (Ib<=In)	50 >= 14,1 kA		700 < 4180 A	Verified	0,287<=4 %
QESIC-S1 C-20	0<=50 A (Ib<=In)	50 >= 14,1 kA		700 < 4180 A	Verified	0,287<=4 %
QESIC-S1 C-21	0<=32 A (Ib<=In)	15 >= 14,1 kA		320 < 4180 A	Verified	0,287<=4 %
AUX TR	0,653<=1,66 A (Ib<=In)				Verified	0,563<=4 %
QESIC-S1 C-15	4,63<=16 A (Ib<=In)	6 >= 1,51 kA		160 < 1322 A	Verified	0<=4 %
CABINA GEN - BT QESIC-S2						
QESIC-S2 C-00	12,8<=317,5 A (Ib<=In)				Verified	0,287<=2 %
QESIC-S2 C-01	1,36<=32<=61,5 A	15 >= 13 kA	Verified	Indirect contacts prot	Verified	0,407<=4 %
QESIC-S2 C-02	2,3<=32<=75 A	15 >= 13 kA	Verified	Indirect contacts prot	Verified	0,734<=4 %
QESIC-S2 C-03	1,12<=32<=75 A	15 >= 13 kA	Verified	448 < 552,7 A	Verified	0,424<=4 %
QESIC-S2 C-04	16,3<=80<=342 A	25 >= 13 kA	Verified	1120 < 1597 A	Verified	0,627<=4 %
QESIC-S2 C-05	0<=32<=75 A	15 >= 13 kA	Verified	448 < 1636 A	Verified	0,287<=4 %
QESIC-S2 C-06	5,81<=80<=82 A	25 >= 13 kA	Verified	1120 < 1339 A	Verified	0,526<=4 %
QESIC-S2 C-07	0,673<=32<=100 A	15 >= 13 kA	Verified	448 < 690,9 A	Verified	0,32<=4 %
QESIC-S2 C-08	3,37<=32<=75 A	15 >= 13 kA	Verified	448 < 466,7 A	Verified	0,563<=4 %
QESIC-S2 C-09	0,653<=10 A (Ib<=In)	20 >= 5,28 kA		100 < 3802 A	Verified	0,252<=4 %
QESIC-S2 C-11	0,722<=10<=36 A	20 >= 5,28 kA	Verified	100 < 848,5 A	Verified	0,309<=4 %
QESIC-S2 C-12	0,481<=10<=36 A	20 >= 5,28 kA	Verified	100 < 848,5 A	Verified	0,29<=4 %
QESIC-S2 C-13	4,81<=16<=36 A	20 >= 5,28 kA	Verified	160 < 848,5 A	Verified	0,67<=4 %
QESIC-S2 C-14	0<=16 A (Ib<=In)	50 >= 13 kA		224 < 3802 A	Verified	0,287<=4 %
QESIC-S2 C-15	0<=16 A (Ib<=In)	20 >= 5,28 kA		160 < 3802 A	Verified	0,287<=4 %
AUX TR	0,653<=1,66 A (Ib<=In)				Verified	0,528<=4 %
QESIC-S2 C-10	4,63<=16 A (Ib<=In)	6 >= 1,51 kA		160 < 1319 A	Verified	0<=4 %
QUADRI SECONDARI QELS-N						
QELS-N C-00	63,7<=175 A (Ib<=In)				Verified	0,434<=4 %
QELS-N C-01	0<=50 A (Ib<=In)	15 >= 14,1 kA		700 < 5122 A	Verified	0,434<=4 %
QELS-N C-02	35,6<=80<=228,8 A	25 >= 14,1 kA	Verified	1120 < 2613 A	Verified	0,655<=4 %

Unit	Ib<=In<=Iz	BC check	Ver. I²t	Imag<Imagmax	Indirect touching	VDTot (Ib)
QELS-N C-03	5,77<=32<=43 A	15 >= 14,1 kA	Verified	448 < 1394 A	Verified	0,574<=4 %
QELS-N C-04	3,7<=50<=80 A	15 >= 14,1 kA	Verified	700 < 1292 A	Verified	0,545<=4 %
QELS-N C-05	12,6<=50<=80 A	15 >= 14,1 kA	Verified	700 < 1191 A	Verified	0,814<=4 %
QELS-N C-06	7,21<=50<=80 A	15 >= 14,1 kA	Verified	700 < 731,4 A	Verified	0,85<=4 %
QELS-N C-07	0<=63<=80 A	70 >= 14,1 kA	Verified	630 < 2614 A	Verified	0,434<=4 %
QELS-N C-08	4,81<=10<=25 A	15 >= 14,1 kA	Verified	100 < 159,6 A	Verified	1,7<=4 %
QELS-N C-09	4,81<=10<=25 A	15 >= 14,1 kA	Verified	100 < 159,6 A	Verified	1,7<=4 %
QELS-N C-10	17,6<=25<=34 A	15 >= 14,1 kA	Verified	250 < 253,2 A	Verified	3,31<=4 %
QELS-N C-11	17,6<=25<=34 A	15 >= 14,1 kA	Verified	250 < 253,2 A	Verified	3,31<=4 %
QELS-N C-12	4,81<=16<=75 A	15 >= 14,1 kA	Verified	160 < 2469 A	Verified	0,481<=4 %
QELS-N C-13	4,01<=16<=42 A	25 >= 14,1 kA	Verified	160 < 526,7 A	Verified	0,732<=4 %
QELS-N C-14	2,41<=16<=49 A	20 >= 7,23 kA	Verified	160 < 526,7 A	Verified	0,81<=4 %
QELS-N C-15	4,01<=16<=42 A	25 >= 14,1 kA	Verified	160 < 526,7 A	Verified	0,732<=4 %
QELS-N C-16	2,41<=16<=49 A	20 >= 7,23 kA	Verified	160 < 526,7 A	Verified	0,816<=4 %
QELS-N C-17	4,81<=16<=42 A	25 >= 14,1 kA	Verified	160 < 526,7 A	Verified	0,792<=4 %
QELS-N C-18	0<=63 A (Ib<=In)	70 >= 14,1 kA		630 < 5122 A	Verified	0,434<=4 %
QELS-N C-19	0<=63 A (Ib<=In)	70 >= 14,1 kA		630 < 5122 A	Verified	0,434<=4 %
QELS-N C-20	0<=63 A (Ib<=In)	70 >= 14,1 kA		630 < 5122 A	Verified	0,434<=4 %
QELS-N C-21	0<=63 A (Ib<=In)	70 >= 14,1 kA		630 < 5122 A	Verified	0,434<=4 %
QUADRI SECONDARI QELS-S1						
QELS-S1 C-00	8,05<=80 A (Ib<=In)				Verified	0,345<=4 %
QELS-S1 C-01	0<=32 A (Ib<=In)	10 >= 9,89 kA		448 < 3061 A	Verified	0,345<=4 %
QELS-S1 C-02	7,05<=50<=61,5 A	10 >= 9,89 kA	Verified	Indirect contacts prot	Verified	1,57<=4 %
QELS-S1 C-03	1,44<=32<=44,3 A	10 >= 9,89 kA	Verified	Indirect contacts prot	Verified	0,788<=4 %
QELS-S1 C-04	1,68<=32<=44,3 A	10 >= 9,89 kA	Verified	Indirect contacts prot	Verified	0,564<=4 %
QELS-S1 C-05	2,89<=50<=61,5 A	10 >= 9,89 kA	Verified	Indirect contacts prot	Verified	0,807<=4 %
QELS-S1 C-06	3,37<=32<=44,3 A	10 >= 9,89 kA	Verified	Indirect contacts prot	Verified	1,26<=4 %

Unit	Ib<=In<=Iz	BC check	Ver. I²t	Imag<Imagmax	Indirect touching	VDTot (Ib)
QELS-S1 C-07	0<=32 A (Ib<=In)	20 >= 9,89 kA		320 < 3061 A	Verified	0,345<=4 %
QELS-S1 C-08	0<=32 A (Ib<=In)	20 >= 9,89 kA		320 < 3061 A	Verified	0,345<=4 %
QELS-S1 C-09	0<=32 A (Ib<=In)	20 >= 9,89 kA		320 < 3061 A	Verified	0,345<=4 %
QUADRI SECONDARI QELS-S2						
QELS-S2 C-00	5,81<=80 A (Ib<=In)				Verified	0,526<=4 %
QELS-S2 C-01	0<=32 A (Ib<=In)	10 >= 3,99 kA		448 < 1339 A	Verified	0,526<=4 %
QELS-S2 C-02	8,74<=50<=61,5 A	10 >= 3,99 kA	Verified	700 < 1033 A	Verified	0,686<=4 %
QELS-S2 C-03	2,89<=32<=54 A	10 >= 3,99 kA	Verified	Indirect contacts prot	Verified	0,994<=4 %
QELS-S2 C-04	0<=50 A (Ib<=In)	10 >= 3,99 kA		500 < 1339 A	Verified	0,526<=4 %
QELS-S2 C-05	0<=50 A (Ib<=In)	10 >= 3,99 kA		500 < 1339 A	Verified	0,526<=4 %
QELS-S2 C-06	0<=16 A (Ib<=In)	25 >= 3,99 kA		160 < 1339 A	Verified	0,526<=4 %
QUADRI SECONDARI QELN-N						
QELN-N C-00	93,7<=160 A (Ib<=In)				Verified	0,927<=4 %
QELN-N C-01	7,22<=80<=101 A	25 >= 10,6 kA	Verified	1120 < 2426 A	Verified	0,967<=4 %
QELN-N C-02	8,98<=80<=279 A	25 >= 10,6 kA	Verified	1120 < 2775 A	Verified	0,948<=4 %
QELN-N C-03	19,2<=50<=101 A	15 >= 10,6 kA	Verified	700 < 1507 A	Verified	1,29<=4 %
QELN-N C-04	19,2<=32<=80 A	15 >= 10,6 kA	Verified	448 < 625,6 A	Verified	2,29<=4 %
QELN-N C-05	12,5<=50<=101 A	15 >= 10,6 kA	Verified	700 < 920,9 A	Verified	1,42<=4 %
QELN-N C-06	11,4<=32<=80 A	15 >= 10,6 kA	Verified	448 < 652,5 A	Verified	1,58<=4 %
QELN-N C-07	0,818<=6<=30 A	20 >= 6,02 kA	Verified	60 < 111,4 A	Verified	1,55<=4 %
QELN-N C-08	1,15<=10<=30 A	20 >= 6,02 kA	Verified	100 < 216,3 A	Verified	1,37<=4 %
QELN-N C-09	4,81<=16<=25 A	25 >= 10,6 kA	Verified	160 < 874 A	Verified	1,11<=4 %
QELN-N C-10	4,01<=16<=42 A	25 >= 10,6 kA	Verified	160 < 500,6 A	Verified	1,22<=4 %
QELN-N C-11	2,41<=16<=49 A	20 >= 6,02 kA	Verified	160 < 500,6 A	Verified	1,31<=4 %
QELN-N C-12	4,01<=16<=42 A	25 >= 10,6 kA	Verified	160 < 500,6 A	Verified	1,22<=4 %
QELN-N C-13	2,41<=16<=49 A	20 >= 6,02 kA	Verified	160 < 500,6 A	Verified	1,31<=4 %
QELN-N C-14	4,81<=16<=42 A	25 >= 10,6 kA	Verified	160 < 500,6 A	Verified	1,28<=4 %

Unit	Ib<=In<=Iz	BC check	Ver. I²t	Imag<Imagmax	Indirect touching	VDTot (Ib)
QELN-N C-15	0<=32 A (Ib<=In)	36 >= 10,6 kA		400 < 3458 A	Verified	0,927<=4 %
QELN-N C-16	0<=32 A (Ib<=In)	36 >= 10,6 kA		400 < 3458 A	Verified	0,927<=4 %
QELN-N C-17	0<=32 A (Ib<=In)	36 >= 10,6 kA		400 < 3458 A	Verified	0,927<=4 %
QUADRI SECONDARI QELN-S1						
QELN-S1 C-00	2,81<=80 A (Ib<=In)				Verified	0,299<=4 %
QELN-S1 C-01	1,44<=32<=61,5 A	20 >= 9,89 kA	Verified	320 < 1527 A	Verified	0,327<=4 %
QELN-S1 C-02	0,722<=32<=61,5 A	20 >= 9,89 kA	Verified	320 < 1527 A	Verified	0,31<=4 %
QELN-S1 C-03	0<=32<=61,5 A	20 >= 9,89 kA	Verified	320 < 757,7 A	Verified	0,299<=4 %
QELN-S1 C-04	0,882<=32<=75 A	20 >= 9,89 kA	Verified	320 < 698,9 A	Verified	0,32<=4 %
QELN-S1 C-05	0<=32 A (Ib<=In)	20 >= 9,89 kA		320 < 3061 A	Verified	0,299<=4 %
QELN-S1 C-06	0<=32 A (Ib<=In)	20 >= 9,89 kA		320 < 3061 A	Verified	0,299<=4 %
QUADRI SECONDARI QELN-S2						
QELN-S2 C-00	16,3<=80 A (Ib<=In)				Verified	0,627<=4 %
QELN-S2 C-01	2,81<=32<=44,3 A	10 >= 5,7 kA	Verified	448 < 837,8 A	Verified	0,608<=4 %
QELN-S2 C-02	2,41<=32<=44,3 A	10 >= 5,7 kA	Verified	448 < 837,8 A	Verified	0,621<=4 %
QELN-S2 C-03	13,7<=32<=54 A	10 >= 5,7 kA	Verified	Indirect contacts prot	Verified	2,68<=4 %
QELN-S2 C-04	0,673<=32<=54 A	10 >= 5,7 kA	Verified	Indirect contacts prot	Verified	0,565<=4 %
QELN-S2 C-05	1,44<=32<=54 A	10 >= 5,7 kA	Verified	448 < 837,8 A	Verified	0,63<=4 %
QELN-S2 C-06	0<=32 A (Ib<=In)	10 >= 5,7 kA		320 < 1597 A	Verified	0,627<=4 %
QELN-S2 C-07	0<=32 A (Ib<=In)	20 >= 5,7 kA		320 < 1597 A	Verified	0,627<=4 %

Identification

Unit ref-mark:	**+CABINA GEN - BT.QGBT-TR1-QGBT-TR1 C-01**
Denomination 1:	
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**544,5 kW**	Distribution system:	**TN-S**
Coefficient:	**0,7**	Phases link:	**3P+N**
Power dimensioning:	**381,1 kW**	Input frequency:	**50 Hz**
Reactive power:	**79,8 kVAR**	Transferred upstream power:	**389,4 kVA**
Load rated current Ib:	**569,9 A**	Total power:	**1109 kVA**
Power factor:	**0,979**	Available power:	**719,1 kVA**
Rated voltage:	**400 V**		

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**48,1 kA**	Ip1ft:	**49,6 kA**
Ikv max downstream:	**48,2 kA**	Ik1ftmin:	**20,4 kA**
Imagmax (maximum magnetic):	**20373 A**	Ik1fnmax:	**45,4 kA**
Ik max:	**45 kA**	Ip1fn:	**100,9 kA**
Ip:	**100 kA**	Ik1fnmin:	**40 kA**
Ik min:	**39,7 kA**	Zk min:	**5,13 mohm**
Ik2ftmax:	**40,4 kA**	Zk max:	**5,53 mohm**
Ip2ft:	**89,8 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**34,2 kA**	Zk2 max:	**0 mohm**
Ik2max:	**39 kA**	Zk1ftmin:	**10,3 mohm**
Ip2:	**86,6 kA**	Zk1ftmax:	**10,8 mohm**
Ik2min:	**34,3 kA**	Zk1fnmin:	**5,09 mohm**
Ik1ftmax:	**22,3 kA**	Zk1fnmx:	**5,49 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**MTZ1 16 H3 + MICROLOGIC 5.0X LSI**		
Protection type:	**MT**		
Protection nominal current.:	**1600 A**	Neutral thermic trip setting:	**1600 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**16000 A**
Thermic trip setting:	**1600 A**	Breaking capacity BC:	**66 kA**
Magnetic trip setting:	**16000 A**	BC > Upstream short-circuit I max:	**66 >= 48,1 kA**
Magnetic rel. < I max. mag:	**16000 < 20373 A**	Standard:	**Icu - EN 60947**

Identification

Unit ref-mark:	**+CABINA GEN - BT.QGBT-TR1-QGBT-TR1 C-03**
Denomination 1:	QSCAB-N
Denomination 2:	Quadro Servizi di Cabina
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**6,71 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**6,71 kW**	Input frequency:	**50 Hz**
Reactive power:	**3,36 kVAR**	Transferred upstream power:	**7,51 kVA**
Load rated current Ib:	**11,9 A**	Total power:	**43,6 kVA**
Power factor:	**0,894**	Available power:	**36,1 kVA**
Rated voltage:	**400 V**		

Cables

Formation:	**5G16**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FG16OM16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**HEPR**	K^2S^2 phase conductor:	**$5,235*10^6 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$5,235*10^6 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$5,235*10^6 A^2s$**
Line length:	**17 m**	Partial voltage drop by Ib:	**0,14 %**
Iz withstand current:	**70 A**	Total voltage drop by Ib:	**0,198 %**
Neutral withstand current:	**70 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**0,7 (Number of circuits: 3)**	Cable temperature by Ib:	**31,7 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**78,6 °C**
Total derating coefficient:	**0,7**	Ib<=In<=Iz Coordination:	**11,9<=63<=70 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**48,1 kA**	Ip1ft:	**14,5 kA**
Ikv max downstream:	**10,3 kA**	Ik1ftmin:	**3,87 kA**
Imagmax (maximum magnetic):	**3871 A**	Ik1fnmax:	**5,4 kA**
Ik max:	**10,3 kA**	Ip1fn:	**19,4 kA**
Ip:	**19,4 kA**	Ik1fnmin:	**4,04 kA**
Ik min:	**7,82 kA**	Zk min:	**22,3 mohm**
Ik2ftmax:	**9,15 kA**	Zk max:	**28 mohm**
Ip2ft:	**18,7 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**6,86 kA**	Zk2 max:	**0 mohm**
Ik2max:	**8,96 kA**	Zk1ftmin:	**45,3 mohm**
Ip2:	**18,4 kA**	Zk1ftmax:	**56,7 mohm**
Ik2min:	**6,78 kA**	Zk1fnmin:	**42,7 mohm**
Ik1ftmax:	**5,1 kA**	Zk1fnmx:	**54,1 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**COMPACT NSX160H + TM63G NSX**		
Protection type:	**MT**		
Protection nominal current.:	**160 A**	Neutral thermic trip setting:	**63 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**126 A**
Thermic trip setting:	**63 A**	Breaking capacity BC:	**70 kA**
Magnetic trip setting:	**126 A**	BC > Upstream short-circuit I max:	**70 >= 48,1 kA**
Magnetic rel. < I max. mag:	**126 < 3871 A**	Standard:	**Ics - EN 60947**

Identification

Unit ref-mark:	**+CABINA GEN - BT.QGBT-TR1-QGBT-TR1 C-00**
Denomination 1:	Luce Scena
Denomination 2:	Presa Compagnia
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**2,05 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**2,05 kW**	Input frequency:	**50 Hz**
Reactive power:	**1,03 kVAR**	Transferred upstream power:	**2,3 kVA**
Load rated current Ib:	**3,79 A**	Total power:	**43,6 kVA**
Power factor:	**0,894**	Available power:	**41,4 kVA**
Rated voltage:	**400 V**		

Cables

Formation:	**5G25**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FTG18OM16 0,6/1 kV B2ca-s1a,d1,a1		
Insulating (line+neutral+PE):	**EPR**	K^2S^2 phase conductor:	**$1,278*10^7 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$1,278*10^7 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$1,278*10^7 A^2s$**
Line length:	**40 m**	Partial voltage drop by Ib:	**0,07 %**
Iz withstand current:	**88,9 A**	Total voltage drop by Ib:	**0,122 %**
Neutral withstand current:	**88,9 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**0,7 (Number of circuits: 3)**	Cable temperature by Ib:	**30,1 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**60,1 °C**
Total derating coefficient:	**0,7**	Ib<=In<=Iz Coordination:	**3,79<=63<=88,9 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**48,2 kA**	Ip1ft:	**14,5 kA**
Ikv max downstream:	**7,02 kA**	Ik1ftmin:	**2,63 kA**
Imagmax (maximum magnetic):	**2626 A**	Ik1fnmax:	**3,61 kA**
Ik max:	**7,02 kA**	Ip1fn:	**19,4 kA**
Ip:	**19,4 kA**	Ik1fnmin:	**2,7 kA**
Ik min:	**5,29 kA**	Zk min:	**32,9 mohm**
Ik2ftmax:	**6,22 kA**	Zk max:	**41,5 mohm**
Ip2ft:	**18,7 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**4,64 kA**	Zk2 max:	**0 mohm**
Ik2max:	**6,08 kA**	Zk1ftmin:	**66,3 mohm**
Ip2:	**18,4 kA**	Zk1ftmax:	**83,5 mohm**
Ik2min:	**4,58 kA**	Zk1fnmin:	**63,8 mohm**
Ik1ftmax:	**3,48 kA**	Zk1fnmx:	**81,1 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**COMPACT NSX160S + TM63G NSX**		
Protection type:	**MT**		
Protection nominal current.:	**160 A**	Neutral thermic trip setting:	**63 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**126 A**
Thermic trip setting:	**63 A**	Breaking capacity BC:	**100 kA**
Magnetic trip setting:	**126 A**	BC > Upstream short-circuit I max:	**100 >= 48,2 kA**
Magnetic rel. < I max. mag:	**126 < 2626 A**	Standard:	**Ics - EN 60947**

Identification

Unit ref-mark:	**+CABINA GEN - BT.QGBT-TR1-QGBT-TR1 C-02**
Denomination 1:	RIF1 Quadro di
Denomination 2:	Rifasamento Automatico 1
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Terminal capacitance type**		
Rated power:	**0 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**0 kW**	Input frequency:	**50 Hz**
Reactive power:	**150 kVAR**	Transferred upstream power:	**150 kVA**
Load rated current Ib:	**216,5 A**	Total power:	**277,1 kVA**
Power factor:	**0**	Available power:	**127,1 kVA**
Rated voltage:	**400 V**	Number of loads per unit:	**1**

Cables

Formation:	**3x(2x150)+1x150+1G150**		
Type of lay:	13 - insul. single-core cables, armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FG16M16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**HEPR**	K^2S^2 phase conductor:	**$1,84*10^9 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$4,601*10^8 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$6,97*10^8 A^2s$**
Line length:	**20 m**	Partial voltage drop by Ib:	**-0,075 %**
Iz withstand current:	**742,4 A**	Total voltage drop by Ib:	**-0,022 %**
Neutral withstand current:	**464 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**0,8 (Number of circuits: 1)**	Cable temperature by Ib:	**35,1 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**47,4 °C**
Total derating coefficient:	**0,8**	Ib<=In<=Iz Coordination:	**216,5<=400<=742,4 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**48,2 kA**	Ip1ft:	**22,3 kA**
Ikv max downstream:	**38,5 kA**	Ik1ftmin:	**15,5 kA**
Imagmax (maximum magnetic):	**15467 A**	Ik1fnmax:	**28,1 kA**
Ik max:	**36,8 kA**	Ip1fn:	**31,4 kA**
Ip:	**31,3 kA**	Ik1fnmin:	**23,5 kA**
Ik min:	**32,2 kA**	Zk min:	**6,28 mohm**
Ik2ftmax:	**33,5 kA**	Zk max:	**6,81 mohm**
Ip2ft:	**29,9 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**27,1 kA**	Zk2 max:	**0 mohm**
Ik2max:	**31,9 kA**	Zk1ftmin:	**13,1 mohm**
Ip2:	**29,5 kA**	Zk1ftmax:	**14,2 mohm**
Ik2min:	**27,9 kA**	Zk1fnmin:	**8,21 mohm**
Ik1ftmax:	**17,6 kA**	Zk1fnmx:	**9,32 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**COMPACT NSX400H + MLOGIC 5.3A NSX (LSI) 400A**		
Protection type:	**MT**		
Protection nominal current.:	**400 A**	Neutral thermic trip setting:	**400 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**4000 A**
Thermic trip setting:	**400 A**	Breaking capacity BC:	**70 kA**
Magnetic trip setting:	**4000 A**	BC > Upstream short-circuit I max:	**70 >= 48,2 kA**
Magnetic rel. < I max. mag:	**4000 < 15467 A**	Standard:	**Ics - EN 60947**

Identification

Unit ref-mark:	**+CABINA GEN - BT.QGBT-TR1-QGBT-TR1 C-04**
Denomination 1:	QECDZ1-N
Denomination 2:	Q.E. Condizionamento 1
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**53,3 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**53,3 kW**	Input frequency:	**50 Hz**
Reactive power:	**25,9 kVAR**	Transferred upstream power:	**59,3 kVA**
Load rated current Ib:	**86,2 A**	Total power:	**110,9 kVA**
Power factor:	**0,9**	Available power:	**51,6 kVA**
Rated voltage:	**400 V**		

Cables

Formation:	**4x(1x70)+1G50**		
Type of lay:	13 - insul. single-core cables, armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FG16M16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**EPR**	K^2S^2 phase conductor:	**$1,002*10^8 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$1,002*10^8 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$7,744*10^7 A^2s$**
Line length:	**100 m**	Partial voltage drop by Ib:	**1,33 %**
Iz withstand current:	**195,3 A**	Total voltage drop by Ib:	**1,39 %**
Neutral withstand current:	**195,3 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**0,7 (Number of circuits: 3)**	Cable temperature by Ib:	**41,7 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**70,3 °C**
Total derating coefficient:	**0,7**	Ib<=In<=Iz Coordination:	**86,2<=160<=195,3 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**48,2 kA**	Ip1ft:	**14,5 kA**
Ikv max downstream:	**7,37 kA**	Ik1ftmin:	**2,43 kA**
Imagmax (maximum magnetic):	**2430 A**	Ik1fnmax:	**3,91 kA**
Ik max:	**7,37 kA**	Ip1fn:	**19,4 kA**
Ip:	**19,4 kA**	Ik1fnmin:	**2,97 kA**
Ik min:	**5,68 kA**	Zk min:	**31,3 mohm**
Ik2ftmax:	**6,6 kA**	Zk max:	**38,6 mohm**
Ip2ft:	**18,7 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**4,89 kA**	Zk2 max:	**0 mohm**
Ik2max:	**6,38 kA**	Zk1ftmin:	**72,4 mohm**
Ip2:	**18,4 kA**	Zk1ftmax:	**90,3 mohm**
Ik2min:	**4,92 kA**	Zk1fnmin:	**59 mohm**
Ik1ftmax:	**3,19 kA**	Zk1fnmx:	**73,8 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**COMPACT NSX160H + MICROLOGIC 5.0X LSI**		
Protection type:	**MT**		
Protection nominal current.:	**160 A**	Neutral thermic trip setting:	**160 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**1600 A**
Thermic trip setting:	**252 A**	Breaking capacity BC:	**70 kA**
Magnetic trip setting:	**1600 A**	BC > Upstream short-circuit I max:	**70 >= 48,2 kA**
Magnetic rel. < I max. mag:	**1600 < 2430 A**	Standard:	**Icu - EN 60947**

Identification

Unit ref-mark:	**+CABINA GEN - BT.QGBT-TR1-QGBT-TR1 C-05**
Denomination 1:	QECDZ2-N
Denomination 2:	Q.E. Condizionamento 2
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**40,3 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**40,3 kW**	Input frequency:	**50 Hz**
Reactive power:	**19,6 kVAR**	Transferred upstream power:	**44,8 kVA**
Load rated current Ib:	**68,6 A**	Total power:	**110,9 kVA**
Power factor:	**0,9**	Available power:	**66 kVA**
Rated voltage:	**400 V**		

Cables

Formation:	**4x(1x70)+1G50**		
Type of lay:	13 - insul. single-core cables, armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FG16M16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**EPR**	K^2S^2 phase conductor:	**$1,002*10^8 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$1,002*10^8 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$7,744*10^7 A^2s$**
Line length:	**90 m**	Partial voltage drop by Ib:	**1,02 %**
Iz withstand current:	**195,3 A**	Total voltage drop by Ib:	**1,07 %**
Neutral withstand current:	**195,3 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**0,7 (Number of circuits: 3)**	Cable temperature by Ib:	**37,4 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**70,3 °C**
Total derating coefficient:	**0,7**	Ib<=In<=Iz Coordination:	**68,6<=160<=195,3 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**48,2 kA**	Ip1ft:	**14,5 kA**
Ikv max downstream:	**8,1 kA**	Ik1ftmin:	**2,68 kA**
Imagmax (maximum magnetic):	**2682 A**	Ik1fnmax:	**4,32 kA**
Ik max:	**8,16 kA**	Ip1fn:	**19,4 kA**
Ip:	**19,4 kA**	Ik1fnmin:	**3,28 kA**
Ik min:	**6,26 kA**	Zk min:	**28,3 mohm**
Ik2ftmax:	**7,28 kA**	Zk max:	**35 mohm**
Ip2ft:	**18,7 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**5,39 kA**	Zk2 max:	**0 mohm**
Ik2max:	**7,04 kA**	Zk1ftmin:	**65,7 mohm**
Ip2:	**18,4 kA**	Zk1ftmax:	**81,8 mohm**
Ik2min:	**5,42 kA**	Zk1fnmin:	**53,3 mohm**
Ik1ftmax:	**3,51 kA**	Zk1fnmx:	**66,7 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**COMPACT NSX160H + MICROLOGIC 5.0X LSI**		
Protection type:	**MT**		
Protection nominal current.:	**160 A**	Neutral thermic trip setting:	**160 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**1600 A**
Thermic trip setting:	**252 A**	Breaking capacity BC:	**70 kA**
Magnetic trip setting:	**1600 A**	BC > Upstream short-circuit I max:	**70 >= 48,2 kA**
Magnetic rel. < I max. mag:	**1600 < 2682 A**	Standard:	**Icu - EN 60947**

Identification

Unit ref-mark:	**+CABINA GEN - BT.QGBT-TR1-QGBT-TR1 C-06**
Denomination 1:	QECDZ3
Denomination 2:	Q.E. Unità Trattamento Aria 2
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**18,8 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**18,8 kW**	Input frequency:	**50 Hz**
Reactive power:	**9,14 kVAR**	Transferred upstream power:	**20,9 kVA**
Load rated current Ib:	**32,1 A**	Total power:	**43,6 kVA**
Power factor:	**0,899**	Available power:	**22,8 kVA**
Rated voltage:	**400 V**		

Cables

Formation:	**5G25**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FG16OM16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**HEPR**	K^2S^2 phase conductor:	**$1,278*10^7 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$1,278*10^7 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$1,278*10^7 A^2s$**
Line length:	**90 m**	Partial voltage drop by Ib:	**1,27 %**
Iz withstand current:	**88,9 A**	Total voltage drop by Ib:	**1,33 %**
Neutral withstand current:	**88,9 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**0,7 (Number of circuits: 3)**	Cable temperature by Ib:	**37,8 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**60,1 °C**
Total derating coefficient:	**0,7**	Ib<=In<=Iz Coordination:	**32,1<=63<=88,9 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**48,2 kA**	Ip1ft:	**14,5 kA**
Ikv max downstream:	**3,23 kA**	Ik1ftmin:	**1,2 kA**
Imagmax (maximum magnetic):	**1203 A**	Ik1fnmax:	**1,64 kA**
Ik max:	**3,23 kA**	Ip1fn:	**19,4 kA**
Ip:	**19,4 kA**	Ik1fnmin:	**1,22 kA**
Ik min:	**2,41 kA**	Zk min:	**71,5 mohm**
Ik2ftmax:	**2,86 kA**	Zk max:	**91 mohm**
Ip2ft:	**18,7 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**2,12 kA**	Zk2 max:	**0 mohm**
Ik2max:	**2,8 kA**	Zk1ftmin:	**143,5 mohm**
Ip2:	**18,4 kA**	Zk1ftmax:	**182,4 mohm**
Ik2min:	**2,09 kA**	Zk1fnmin:	**140,8 mohm**
Ik1ftmax:	**1,61 kA**	Zk1fnmx:	**179,4 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**COMPACT NSX160H + TM63G NSX**		
Protection type:	**MT**		
Protection nominal current.:	**160 A**	Neutral thermic trip setting:	**63 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**126 A**
Thermic trip setting:	**63 A**	Breaking capacity BC:	**70 kA**
Magnetic trip setting:	**126 A**	BC > Upstream short-circuit I max:	**70 >= 48,2 kA**
Magnetic rel. < I max. mag:	**126 < 1203 A**	Standard:	**Ics - EN 60947**

Identification

Unit ref-mark:	**+CABINA GEN - BT.QGBT-TR1-QGBT-TR1 C-07**
Denomination 1:	QECDZ4
Denomination 2:	Q.E. Unità Trattamento Aria 5
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**8,61 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**8,61 kW**	Input frequency:	**50 Hz**
Reactive power:	**4,22 kVAR**	Transferred upstream power:	**9,59 kVA**
Load rated current Ib:	**22,4 A**	Total power:	**27,7 kVA**
Power factor:	**0,898**	Available power:	**18,1 kVA**
Rated voltage:	**400 V**		

Cables

Formation:	**5G25**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FG16OM16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**HEPR**	K^2S^2 phase conductor:	**$1,278*10^7 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$1,278*10^7 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$1,278*10^7 A^2s$**
Line length:	**125 m**	Partial voltage drop by Ib:	**1,79 %**
Iz withstand current:	**88,9 A**	Total voltage drop by Ib:	**1,85 %**
Neutral withstand current:	**88,9 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**0,7 (Number of circuits: 3)**	Cable temperature by Ib:	**33,8 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**42,1 °C**
Total derating coefficient:	**0,7**	Ib<=In<=Iz Coordination:	**22,4<=40<=88,9 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**48,2 kA**	Ip1ft:	**14,5 kA**
Ikv max downstream:	**2,34 kA**	Ik1ftmin:	**0,871 kA**
Imagmax (maximum magnetic):	**871,5 A**	Ik1fnmax:	**1,18 kA**
Ik max:	**2,34 kA**	Ip1fn:	**19,4 kA**
Ip:	**19,4 kA**	Ik1fnmin:	**0,882 kA**
Ik min:	**1,75 kA**	Zk min:	**98,7 mohm**
Ik2ftmax:	**2,07 kA**	Zk max:	**125,7 mohm**
Ip2ft:	**18,7 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**1,53 kA**	Zk2 max:	**0 mohm**
Ik2max:	**2,03 kA**	Zk1ftmin:	**197,7 mohm**
Ip2:	**18,4 kA**	Zk1ftmax:	**251,7 mohm**
Ik2min:	**1,51 kA**	Zk1fnmin:	**194,4 mohm**
Ik1ftmax:	**1,17 kA**	Zk1fnmx:	**247,8 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**COMPACT NSX160H + MLOGIC 5.2E NSX (LSI) 40A**		
Protection type:	**MT**		
Protection nominal current.:	**160 A**	Neutral thermic trip setting:	**40 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**200 A**
Thermic trip setting:	**40 A**	Breaking capacity BC:	**70 kA**
Magnetic trip setting:	**200 A**	BC > Upstream short-circuit I max:	**70 >= 48,2 kA**
Magnetic rel. < I max. mag:	**200 < 871,5 A**	Standard:	**Ics - EN 60947**

Identification

Unit ref-mark:	**+CABINA GEN - BT.QGBT-TR1-QGBT-TR1 C-08**
Denomination 1:	Riserva
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**0 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**0 kW**	Input frequency:	**50 Hz**
Reactive power:	**0 kVAR**	Transferred upstream power:	**0 kVA**
Load rated current Ib:	**0 A**	Total power:	**43,6 kVA**
Power factor:	**0,9**	Available power:	**43,6 kVA**
Rated voltage:	**400 V**		

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**48,2 kA**	Ip1ft:	**14,5 kA**
Ikv max downstream:	**48,2 kA**	Ik1ftmin:	**20,4 kA**
Imagmax (maximum magnetic):	**20373 A**	Ik1fnmax:	**45,4 kA**
Ik max:	**45 kA**	Ip1fn:	**19,4 kA**
Ip:	**19,4 kA**	Ik1fnmin:	**40 kA**
Ik min:	**39,7 kA**	Zk min:	**5,13 mohm**
Ik2ftmax:	**40,4 kA**	Zk max:	**5,53 mohm**
Ip2ft:	**18,7 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**34,2 kA**	Zk2 max:	**0 mohm**
Ik2max:	**39 kA**	Zk1ftmin:	**10,3 mohm**
Ip2:	**18,4 kA**	Zk1ftmax:	**10,8 mohm**
Ik2min:	**34,3 kA**	Zk1fnmin:	**5,09 mohm**
Ik1ftmax:	**22,3 kA**	Zk1fnmx:	**5,49 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**COMPACT NSX160H + TM63G NSX**		
Protection type:	**MT**		
Protection nominal current.:	**160 A**	Neutral thermic trip setting:	**63 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**126 A**
Thermic trip setting:	**63 A**	Breaking capacity BC:	**70 kA**
Magnetic trip setting:	**126 A**	BC > Upstream short-circuit I max:	**70 >= 48,2 kA**
Magnetic rel. < I max. mag:	**126 < 20373 A**	Standard:	**Ics - EN 60947**

Identification

Unit ref-mark:	**+CABINA GEN - BT.QGBT-TR1-QGBT-TR1 C-09**
Denomination 1:	QSRGE-N
Denomination 2:	Quadro di Scambio Rete-GE
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**11,8 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**11,8 kW**	Input frequency:	**50 Hz**
Reactive power:	**5,74 kVAR**	Transferred upstream power:	**13,1 kVA**
Load rated current Ib:	**27,5 A**	Total power:	**277,1 kVA**
Power factor:	**0,899**	Available power:	**264 kVA**
Rated voltage:	**400 V**		

Cables

Formation:	**3x(2x120)+1x120+1G120**		
Type of lay:	13 - insul. single-core cables, armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FG16M16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**EPR**	K^2S^2 phase conductor:	**$1,178*10^9 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$2,945*10^8 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$4,461*10^8 A^2s$**
Line length:	**25 m**	Partial voltage drop by Ib:	**0,066 %**
Iz withstand current:	**520 A**	Total voltage drop by Ib:	**0,126 %**
Neutral withstand current:	**280 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**0,65 (Number of circuits: 3)**	Cable temperature by Ib:	**30,2 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**65,5 °C**
Total derating coefficient:	**0,65**	Ib<=In<=Iz Coordination:	**27,5<=400<=520 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**48,2 kA**	Ip1ft:	**22,3 kA**
Ikv max downstream:	**34,8 kA**	Ik1ftmin:	**13,6 kA**
Imagmax (maximum magnetic):	**13571 A**	Ik1fnmax:	**23,2 kA**
Ik max:	**34,2 kA**	Ip1fn:	**31,4 kA**
Ip:	**31,3 kA**	Ik1fnmin:	**18,8 kA**
Ik min:	**29,6 kA**	Zk min:	**6,75 mohm**
Ik2ftmax:	**31,2 kA**	Zk max:	**7,41 mohm**
Ip2ft:	**29,9 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**24,8 kA**	Zk2 max:	**0 mohm**
Ik2max:	**29,6 kA**	Zk1ftmin:	**14,6 mohm**
Ip2:	**29,5 kA**	Zk1ftmax:	**16,2 mohm**
Ik2min:	**25,7 kA**	Zk1fnmin:	**9,97 mohm**
Ik1ftmax:	**15,8 kA**	Zk1fnmx:	**11,6 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**COMPACT NSX400H + MLOGIC 5.3E NSX (LSI) 400A**		
Protection type:	**MT**		
Protection nominal current.:	**400 A**	Neutral thermic trip setting:	**400 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**4000 A**
Thermic trip setting:	**400 A**	Breaking capacity BC:	**70 kA**
Magnetic trip setting:	**4000 A**	BC > Upstream short-circuit I max:	**70 >= 48,2 kA**
Magnetic rel. < I max. mag:	**4000 < 13571 A**	Standard:	**Ics - EN 60947**

Identification

Unit ref-mark:	**+CABINA GEN - BT.QGBT-TR1-QGBT-TR1 C-10**
Denomination 1:	PDC1
Denomination 2:	Pompa di Calore 1
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic terminal**		
Rated power:	**40 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**40 kW**	Input frequency:	**50 Hz**
Reactive power:	**19,4 kVAR**	Transferred upstream power:	**44,4 kVA**
Load rated current Ib:	**64,2 A**	Total power:	**55,4 kVA**
Power factor:	**0,9**	Available power:	**11 kVA**
Rated voltage:	**400 V**	Number of loads per unit:	**1**

Cables

Formation:	**5G25**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FG16OM16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**HEPR**	K^2S^2 phase conductor:	**$1,278*10^7 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$1,278*10^7 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$1,278*10^7 A^2s$**
Line length:	**50 m**	Partial voltage drop by Ib:	**1,28 %**
Iz withstand current:	**88,9 A**	Total voltage drop by Ib:	**1,34 %**
Neutral withstand current:	**88,9 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**0,7 (Number of circuits: 3)**	Cable temperature by Ib:	**61,2 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**78,6 °C**
Total derating coefficient:	**0,7**	Ib<=In<=Iz Coordination:	**64,2<=80<=88,9 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**48,2 kA**	Ip1ft:	**14,5 kA**
Ikv max downstream:	**5,69 kA**	Ik1ftmin:	**2,12 kA**
Imagmax (maximum magnetic):	**2125 A**	Ik1fnmax:	**2,91 kA**
Ik max:	**5,69 kA**	Ip1fn:	**19,4 kA**
Ip:	**19,4 kA**	Ik1fnmin:	**2,17 kA**
Ik min:	**4,27 kA**	Zk min:	**40,6 mohm**
Ik2ftmax:	**5,04 kA**	Zk max:	**51,4 mohm**
Ip2ft:	**18,7 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**3,75 kA**	Zk2 max:	**0 mohm**
Ik2max:	**4,93 kA**	Zk1ftmin:	**81,7 mohm**
Ip2:	**18,4 kA**	Zk1ftmax:	**103,3 mohm**
Ik2min:	**3,7 kA**	Zk1fnmin:	**79,5 mohm**
Ik1ftmax:	**2,83 kA**	Zk1fnmx:	**101,1 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**COMPACT NSX160H + MLOGIC 5.2E NSX (LSI) 100A**		
Protection type:	**MT**		
Protection nominal current.:	**160 A**	Neutral thermic trip setting:	**80 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**400 A**
Thermic trip setting:	**80 A**	Breaking capacity BC:	**70 kA**
Magnetic trip setting:	**400 A**	BC > Upstream short-circuit I max:	**70 >= 48,2 kA**
Magnetic rel. < I max. mag:	**400 < 2125 A**	Standard:	**Ics - EN 60947**

Identification

Unit ref-mark:	**+CABINA GEN - BT.QGBT-TR1-QGBT-TR1 C-11**
Denomination 1:	Luce Scena
Denomination 2:	Presa Compagnia
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic terminal**		
Rated power:	**110 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**110 kW**	Input frequency:	**50 Hz**
Reactive power:	**53,3 kVAR**	Transferred upstream power:	**122,2 kVA**
Load rated current Ib:	**176,4 A**	Total power:	**173,2 kVA**
Power factor:	**0,9**	Available power:	**51 kVA**
Rated voltage:	**400 V**	Number of loads per unit:	**1**

Cables

Formation:	**4x(1x120)+1G70**		
Type of lay:	13 - insul. single-core cables, armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FG16M16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**EPR**	K^2S^2 phase conductor:	**$2,945*10^8 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$2,945*10^8 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$1,518*10^8 A^2s$**
Line length:	**50 m**	Partial voltage drop by Ib:	**0,855 %**
Iz withstand current:	**280 A**	Total voltage drop by Ib:	**0,915 %**
Neutral withstand current:	**280 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**0,7 (Number of circuits: 3)**	Cable temperature by Ib:	**53,8 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**77,8 °C**
Total derating coefficient:	**0,7**	Ib<=In<=Iz Coordination:	**176,4<=250<=280 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**48,2 kA**	Ip1ft:	**16,1 kA**
Ikv max downstream:	**17,9 kA**	Ik1ftmin:	**6,21 kA**
Imagmax (maximum magnetic):	**6215 A**	Ik1fnmax:	**10,9 kA**
Ik max:	**17,9 kA**	Ip1fn:	**21,2 kA**
Ip:	**21,1 kA**	Ik1fnmin:	**8,62 kA**
Ik min:	**14,7 kA**	Zk min:	**12,9 mohm**
Ik2ftmax:	**16,3 kA**	Zk max:	**14,9 mohm**
Ip2ft:	**20 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**12,4 kA**	Zk2 max:	**0 mohm**
Ik2max:	**15,5 kA**	Zk1ftmin:	**29,7 mohm**
Ip2:	**19,7 kA**	Zk1ftmax:	**35,3 mohm**
Ik2min:	**12,7 kA**	Zk1fnmin:	**21,2 mohm**
Ik1ftmax:	**7,78 kA**	Zk1fnmx:	**25,4 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**COMPACT NSX250H + MLOGIC 5.2A NSX (LSI) 250A**		
Protection type:	**MT**		
Protection nominal current.:	**250 A**	Neutral thermic trip setting:	**250 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**1250 A**
Thermic trip setting:	**250 A**	Breaking capacity BC:	**70 kA**
Magnetic trip setting:	**1250 A**	BC > Upstream short-circuit I max:	**70 >= 48,2 kA**
Magnetic rel. < I max. mag:	**1250 < 6215 A**	Standard:	**Ics - EN 60947**

Identification

Unit ref-mark:	**+CABINA GEN - BT.QGBT-TR1-QGBT-TR1 C-12**
Denomination 1:	Macchina Scenica
Denomination 2:	Alta
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic terminal**		
Rated power:	**110 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**110 kW**	Input frequency:	**50 Hz**
Reactive power:	**53,3 kVAR**	Transferred upstream power:	**122,2 kVA**
Load rated current Ib:	**176,4 A**	Total power:	**173,2 kVA**
Power factor:	**0,9**	Available power:	**51 kVA**
Rated voltage:	**400 V**	Number of loads per unit:	**1**

Cables

Formation:	**4x(1x185)+1G95**		
Type of lay:	13 - insul. single-core cables, armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FG16M16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**EPR**	K^2S^2 phase conductor:	**$6,999*10^8 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$6,999*10^8 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$2,796*10^8 A^2s$**
Line length:	**95 m**	Partial voltage drop by Ib:	**1,17 %**
Iz withstand current:	**373,1 A**	Total voltage drop by Ib:	**1,23 %**
Neutral withstand current:	**373,1 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**0,7 (Number of circuits: 3)**	Cable temperature by Ib:	**43,4 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**56,9 °C**
Total derating coefficient:	**0,7**	Ib<=In<=Iz Coordination:	**176,4<=250<=373,1 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**48,2 kA**	Ip1ft:	**16,1 kA**
Ikv max downstream:	**13,6 kA**	Ik1ftmin:	**4,67 kA**
Imagmax (maximum magnetic):	**4672 A**	Ik1fnmax:	**8,17 kA**
Ik max:	**13,6 kA**	Ip1fn:	**21,2 kA**
Ip:	**21,1 kA**	Ik1fnmin:	**6,59 kA**
Ik min:	**11,3 kA**	Zk min:	**17 mohm**
Ik2ftmax:	**12,4 kA**	Zk max:	**19,4 mohm**
Ip2ft:	**20 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**9,5 kA**	Zk2 max:	**0 mohm**
Ik2max:	**11,8 kA**	Zk1ftmin:	**39,5 mohm**
Ip2:	**19,7 kA**	Zk1ftmax:	**47 mohm**
Ik2min:	**9,8 kA**	Zk1fnmin:	**28,3 mohm**
Ik1ftmax:	**5,84 kA**	Zk1fnmx:	**33,3 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**COMPACT NSX250H + MLOGIC 5.2A NSX (LSI) 250A**		
Protection type:	**MT**		
Protection nominal current.:	**250 A**	Neutral thermic trip setting:	**250 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**1250 A**
Thermic trip setting:	**250 A**	Breaking capacity BC:	**70 kA**
Magnetic trip setting:	**1250 A**	BC > Upstream short-circuit I max:	**70 >= 48,2 kA**
Magnetic rel. < I max. mag:	**1250 < 4672 A**	Standard:	**Ics - EN 60947**

Identification

Unit ref-mark:	**+CABINA GEN - BT.QGBT-TR1-QGBT-TR1 C-13**
Denomination 1:	Luci Scena
Denomination 2:	Dimmer
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic terminal**		
Rated power:	**130 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**130 kW**	Input frequency:	**50 Hz**
Reactive power:	**63 kVAR**	Transferred upstream power:	**144,4 kVA**
Load rated current Ib:	**208,5 A**	Total power:	**173,2 kVA**
Power factor:	**0,9**	Available power:	**28,8 kVA**
Rated voltage:	**400 V**	Number of loads per unit:	**1**

Cables

Formation:	**4x(1x185)+1G95**		
Type of lay:	13 - insul. single-core cables, armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FG16M16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**EPR**	K^2S^2 phase conductor:	**$6,999*10^8 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$6,999*10^8 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$2,796*10^8 A^2s$**
Line length:	**70 m**	Partial voltage drop by Ib:	**1,02 %**
Iz withstand current:	**373,1 A**	Total voltage drop by Ib:	**1,08 %**
Neutral withstand current:	**373,1 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**0,7 (Number of circuits: 3)**	Cable temperature by Ib:	**48,7 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**56,9 °C**
Total derating coefficient:	**0,7**	Ib<=In<=Iz Coordination:	**208,5<=250<=373,1 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**48,2 kA**	Ip1ft:	**16,1 kA**
Ikv max downstream:	**16,9 kA**	Ik1ftmin:	**5,98 kA**
Imagmax (maximum magnetic):	**5984 A**	Ik1fnmax:	**10,5 kA**
Ik max:	**16,9 kA**	Ip1fn:	**21,2 kA**
Ip:	**21,1 kA**	Ik1fnmin:	**8,56 kA**
Ik min:	**14,2 kA**	Zk min:	**13,7 mohm**
Ik2ftmax:	**15,4 kA**	Zk max:	**15,5 mohm**
Ip2ft:	**20 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**11,9 kA**	Zk2 max:	**0 mohm**
Ik2max:	**14,6 kA**	Zk1ftmin:	**31,3 mohm**
Ip2:	**19,7 kA**	Zk1ftmax:	**36,7 mohm**
Ik2min:	**12,3 kA**	Zk1fnmin:	**21,9 mohm**
Ik1ftmax:	**7,39 kA**	Zk1fnmx:	**25,6 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**COMPACT NSX250H + MLOGIC 5.2A NSX (LSI) 250A**		
Protection type:	**MT**		
Protection nominal current.:	**250 A**	Neutral thermic trip setting:	**250 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**1250 A**
Thermic trip setting:	**250 A**	Breaking capacity BC:	**70 kA**
Magnetic trip setting:	**1250 A**	BC > Upstream short-circuit I max:	**70 >= 48,2 kA**
Magnetic rel. < I max. mag:	**1250 < 5984 A**	Standard:	**Ics - EN 60947**

Identification

Unit ref-mark:	**+CABINA GEN - BT.QGBT-TR1-QGBT-TR1 C-14**
Denomination 1:	Macchina Scenica
Denomination 2:	Bassa
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic terminal**		
Rated power:	**15 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**15 kW**	Input frequency:	**50 Hz**
Reactive power:	**7,26 kVAR**	Transferred upstream power:	**16,7 kVA**
Load rated current Ib:	**24,1 A**	Total power:	**69,3 kVA**
Power factor:	**0,9**	Available power:	**52,6 kVA**
Rated voltage:	**400 V**	Number of loads per unit:	**1**

Cables

Formation:	**3x(1x50)+1x25+1G25**		
Type of lay:	13 - insul. single-core cables, armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FG16M16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**HEPR**	K^2S^2 phase conductor:	**5,112*10 ^{7} A^2s**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**1,278*10 ^{7} A^2s**
Conductor material:	**COPPER**	K^2S^2 PE:	**1,936*10 ^{7} A^2s**
Line length:	**70 m**	Partial voltage drop by Ib:	**0,349 %**
Iz withstand current:	**151,2 A**	Total voltage drop by Ib:	**0,408 %**
Neutral withstand current:	**98,7 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**0,7 (Number of circuits: 3)**	Cable temperature by Ib:	**31,5 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**56,2 °C**
Total derating coefficient:	**0,7**	Ib<=In<=Iz Coordination:	**24,1<=100<=151,2 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**48,2 kA**	Ip1ft:	**14,5 kA**
Ikv max downstream:	**7,73 kA**	Ik1ftmin:	**2,02 kA**
Imagmax (maximum magnetic):	**2023 A**	Ik1fnmax:	**2,76 kA**
Ik max:	**7,73 kA**	Ip1fn:	**19,4 kA**
Ip:	**19,4 kA**	Ik1fnmin:	**2,07 kA**
Ik min:	**5,91 kA**	Zk min:	**29,9 mohm**
Ik2ftmax:	**6,88 kA**	Zk max:	**37,1 mohm**
Ip2ft:	**18,7 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**5,06 kA**	Zk2 max:	**0 mohm**
Ik2max:	**6,7 kA**	Zk1ftmin:	**86 mohm**
Ip2:	**18,4 kA**	Zk1ftmax:	**108,4 mohm**
Ik2min:	**5,12 kA**	Zk1fnmin:	**83,6 mohm**
Ik1ftmax:	**2,69 kA**	Zk1fnmx:	**106,2 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**COMPACT NSX160H + MLOGIC 5.2A NSX (LSI) 100A**		
Protection type:	**MT**		
Protection nominal current.:	**160 A**	Neutral thermic trip setting:	**100 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**500 A**
Thermic trip setting:	**100 A**	Breaking capacity BC:	**70 kA**
Magnetic trip setting:	**500 A**	BC > Upstream short-circuit I max:	**70 >= 48,2 kA**
Magnetic rel. < I max. mag:	**500 < 2023 A**	Standard:	**Ics - EN 60947**

Identification

Unit ref-mark:	**+CABINA GEN - BT.QGBT-TR1-QGBT-TR1 C-15**
Denomination 1:	Fotovoltaico
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic terminal**		
Rated power:	**130,9 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**130,9 kW**	Input frequency:	**50 Hz**
Reactive power:	**63,4 kVAR**	Transferred upstream power:	**145,4 kVA**
Load rated current Ib:	**209,9 A**	Total power:	**173,2 kVA**
Power factor:	**0,9**	Available power:	**27,8 kVA**
Rated voltage:	**400 V**	Number of loads per unit:	**1**

Cables

Formation:	**3x(1x185)+1x95+1G95**		
Type of lay:	13 - insul. single-core cables, armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FG16M16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**HEPR**	K^2S^2 phase conductor:	**6,999*10 ^{8} A^2s**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**1,846*10 ^{8} A^2s**
Conductor material:	**COPPER**	K^2S^2 PE:	**2,796*10 ^{8} A^2s**
Line length:	**70 m**	Partial voltage drop by Ib:	**0 %**
Iz withstand current:	**373,1 A**	Total voltage drop by Ib:	**0 %**
Neutral withstand current:	**239,4 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**0,7 (Number of circuits: 3)**	Cable temperature by Ib:	**49 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**56,9 °C**
Total derating coefficient:	**0,7**	Ib<=In<=Iz Coordination:	**209,9<=250<=373,1 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**48,2 kA**	Ip1ft:	**49,6 kA**
Ikv max downstream:	**0 kA**	Ik1ftmin:	**0 kA**
Imagmax (maximum magnetic):	**0 A**	Ik1fnmax:	**0 kA**
Ik max:	**0 kA**	Ip1fn:	**100,9 kA**
Ip:	**100 kA**	Ik1fnmin:	**0 kA**
Ik min:	**0 kA**	Zk min:	**+ Infinity mohm**
Ik2ftmax:	**0 kA**	Zk max:	**+ Infinity mohm**
Ip2ft:	**89,8 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**0 kA**	Zk2 max:	**0 mohm**
Ik2max:	**0 kA**	Zk1ftmin:	**+ Infinity mohm**
Ip2:	**86,6 kA**	Zk1ftmax:	**+ Infinity mohm**
Ik2min:	**0 kA**	Zk1fnmin:	**+ Infinity mohm**
Ik1ftmax:	**0 kA**	Zk1fnmx:	**+ Infinity mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**COMPACT NSX250H + MLOGIC 5.2A NSX (LSI) 250A**		
Protection type:	**MT**		
Protection nominal current.:	**250 A**	Neutral thermic trip setting:	**250 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**1250 A**
Thermic trip setting:	**250 A**	Breaking capacity BC:	**70 kA**
Magnetic trip setting:	**1250 A**	BC > Upstream short-circuit I max:	**70 >= 48,2 kA**
Magnetic rel. < I max. mag:	**Indirect contacts prot**	Standard:	**Ics - EN 60947**

Identification

Unit ref-mark:	**+CABINA GEN - BT.QGBT-TR1-QGBT-TR1 C-16**
Denomination 1:	Riserva
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**0 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**0 kW**	Input frequency:	**50 Hz**
Reactive power:	**0 kVAR**	Transferred upstream power:	**0 kVA**
Load rated current Ib:	**0 A**	Total power:	**277,1 kVA**
Power factor:	**0,9**	Available power:	**277,1 kVA**
Rated voltage:	**400 V**		

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**48,2 kA**	Ip1ft:	**22,3 kA**
Ikv max downstream:	**48,2 kA**	Ik1ftmin:	**20,4 kA**
Imagmax (maximum magnetic):	**20373 A**	Ik1fnmax:	**45,4 kA**
Ik max:	**45 kA**	Ip1fn:	**31,4 kA**
Ip:	**31,3 kA**	Ik1fnmin:	**40 kA**
Ik min:	**39,7 kA**	Zk min:	**5,13 mohm**
Ik2ftmax:	**40,4 kA**	Zk max:	**5,53 mohm**
Ip2ft:	**29,9 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**34,2 kA**	Zk2 max:	**0 mohm**
Ik2max:	**39 kA**	Zk1ftmin:	**10,3 mohm**
Ip2:	**29,5 kA**	Zk1ftmax:	**10,8 mohm**
Ik2min:	**34,3 kA**	Zk1fnmin:	**5,09 mohm**
Ik1ftmax:	**22,3 kA**	Zk1fnmx:	**5,49 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**COMPACT NSX400H + MLOGIC 5.3E NSX (LSI) 400A**		
Protection type:	**MT**		
Protection nominal current.:	**400 A**	Neutral thermic trip setting:	**400 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**4000 A**
Thermic trip setting:	**400 A**	Breaking capacity BC:	**70 kA**
Magnetic trip setting:	**4000 A**	BC > Upstream short-circuit I max:	**70 >= 48,2 kA**
Magnetic rel. < I max. mag:	**4000 < 20373 A**	Standard:	**Ics - EN 60947**

Identification

Unit ref-mark:	**+CABINA GEN - BT.QGBT-TR1-QGBT-TR1 C-17**
Denomination 1:	Riserva
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**0 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**0 kW**	Input frequency:	**50 Hz**
Reactive power:	**0 kVAR**	Transferred upstream power:	**0 kVA**
Load rated current Ib:	**0 A**	Total power:	**173,2 kVA**
Power factor:	**0,9**	Available power:	**173,2 kVA**
Rated voltage:	**400 V**		

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**48,2 kA**	Ip1ft:	**16,1 kA**
Ikv max downstream:	**48,2 kA**	Ik1ftmin:	**20,4 kA**
Imagmax (maximum magnetic):	**20373 A**	Ik1fnmax:	**45,4 kA**
Ik max:	**45 kA**	Ip1fn:	**21,2 kA**
Ip:	**21,1 kA**	Ik1fnmin:	**40 kA**
Ik min:	**39,7 kA**	Zk min:	**5,13 mohm**
Ik2ftmax:	**40,4 kA**	Zk max:	**5,53 mohm**
Ip2ft:	**20 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**34,2 kA**	Zk2 max:	**0 mohm**
Ik2max:	**39 kA**	Zk1ftmin:	**10,2 mohm**
Ip2:	**19,7 kA**	Zk1ftmax:	**10,8 mohm**
Ik2min:	**34,3 kA**	Zk1fnmin:	**5,09 mohm**
Ik1ftmax:	**22,6 kA**	Zk1fnmx:	**5,49 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**COMPACT NSX250H + MLOGIC 5.2A NSX (LSI) 250A**		
Protection type:	**MT**		
Protection nominal current.:	**250 A**	Neutral thermic trip setting:	**250 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**1250 A**
Thermic trip setting:	**250 A**	Breaking capacity BC:	**70 kA**
Magnetic trip setting:	**1250 A**	BC > Upstream short-circuit I max:	**70 >= 48,2 kA**
Magnetic rel. < I max. mag:	**1250 < 20373 A**	Standard:	**Ics - EN 60947**

Identification

Unit ref-mark:	**+CABINA GEN - BT.QGBT-TR1-QGBT-TR1 C-18**
Denomination 1:	Riserva
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**0 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**0 kW**	Input frequency:	**50 Hz**
Reactive power:	**0 kVAR**	Transferred upstream power:	**0 kVA**
Load rated current Ib:	**0 A**	Total power:	**110,9 kVA**
Power factor:	**0,9**	Available power:	**110,9 kVA**
Rated voltage:	**400 V**		

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**48,2 kA**	Ip1ft:	**14,5 kA**
Ikv max downstream:	**48,2 kA**	Ik1ftmin:	**20,4 kA**
Imagmax (maximum magnetic):	**20373 A**	Ik1fnmax:	**45,4 kA**
Ik max:	**45 kA**	Ip1fn:	**19,4 kA**
Ip:	**19,4 kA**	Ik1fnmin:	**40 kA**
Ik min:	**39,7 kA**	Zk min:	**5,13 mohm**
Ik2ftmax:	**40,4 kA**	Zk max:	**5,53 mohm**
Ip2ft:	**18,7 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**34,2 kA**	Zk2 max:	**0 mohm**
Ik2max:	**39 kA**	Zk1ftmin:	**10,3 mohm**
Ip2:	**18,4 kA**	Zk1ftmax:	**10,8 mohm**
Ik2min:	**34,3 kA**	Zk1fnmin:	**5,09 mohm**
Ik1ftmax:	**22,3 kA**	Zk1fnmx:	**5,49 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**COMPACT NSX160H + MLOGIC 5.2A NSX (LSI) 160A**		
Protection type:	**MT**		
Protection nominal current.:	**160 A**	Neutral thermic trip setting:	**160 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**800 A**
Thermic trip setting:	**160 A**	Breaking capacity BC:	**70 kA**
Magnetic trip setting:	**800 A**	BC > Upstream short-circuit I max:	**70 >= 48,2 kA**
Magnetic rel. < I max. mag:	**800 < 20373 A**	Standard:	**Ics - EN 60947**

Identification

Unit ref-mark:	**+CABINA GEN - BT.QGBT-TR1-QGBT-TR1 C-19**
Denomination 1:	Riserva
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**0 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**0 kW**	Input frequency:	**50 Hz**
Reactive power:	**0 kVAR**	Transferred upstream power:	**0 kVA**
Load rated current Ib:	**0 A**	Total power:	**43,6 kVA**
Power factor:	**0,9**	Available power:	**43,6 kVA**
Rated voltage:	**400 V**		

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**48,7 kA**	Ip1ft:	**14,6 kA**
Ikv max downstream:	**48,2 kA**	Ik1ftmin:	**20,4 kA**
Imagmax (maximum magnetic):	**20373 A**	Ik1fnmax:	**45,4 kA**
Ik max:	**45 kA**	Ip1fn:	**19,6 kA**
Ip:	**19,4 kA**	Ik1fnmin:	**40 kA**
Ik min:	**39,7 kA**	Zk min:	**5,13 mohm**
Ik2ftmax:	**40,4 kA**	Zk max:	**5,53 mohm**
Ip2ft:	**18,8 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**34,2 kA**	Zk2 max:	**0 mohm**
Ik2max:	**39 kA**	Zk1ftmin:	**10,3 mohm**
Ip2:	**18,7 kA**	Zk1ftmax:	**10,8 mohm**
Ik2min:	**34,3 kA**	Zk1fnmin:	**5,09 mohm**
Ik1ftmax:	**22,3 kA**	Zk1fnmx:	**5,49 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**COMPACT NSX160H + TM63D NSX**		
Protection type:	**MT**		
Protection nominal current.:	**160 A**	Neutral thermic trip setting:	**63 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**504 A**
Thermic trip setting:	**63 A**	Breaking capacity BC:	**70 kA**
Magnetic trip setting:	**504 A**	BC > Upstream short-circuit I max:	**70 >= 48,7 kA**
Magnetic rel. < I max. mag:	**504 < 20373 A**	Standard:	**Ics - EN 60947**

Identification

Unit ref-mark:	**+CABINA GEN - BT.QGBT-TR2-QGBT-TR2 C-01**
Denomination 1:	
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**241,3 kW**	Distribution system:	**TN-S**
Coefficient:	**0,7**	Phases link:	**3P+N**
Power dimensioning:	**168,9 kW**	Input frequency:	**50 Hz**
Reactive power:	**22,5 kVAR**	Transferred upstream power:	**170,4 kVA**
Load rated current Ib:	**246,3 A**	Total power:	**2276 kVA**
Power factor:	**0,991**	Available power:	**2105 kVA**
Rated voltage:	**400 V**		

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**46,1 kA**	Ip1ft:	**51,3 kA**
Ikv max downstream:	**46,1 kA**	Ik1ftmin:	**19,9 kA**
Imagmax (maximum magnetic):	**19856 A**	Ik1fnmax:	**43,6 kA**
Ik max:	**43 kA**	Ip1fn:	**102,3 kA**
Ip:	**100,8 kA**	Ik1fnmin:	**38 kA**
Ik min:	**37,5 kA**	Zk min:	**5,37 mohm**
Ik2ftmax:	**38,9 kA**	Zk max:	**5,85 mohm**
Ip2ft:	**91,1 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**32,2 kA**	Zk2 max:	**0 mohm**
Ik2max:	**37,3 kA**	Zk1ftmin:	**10,5 mohm**
Ip2:	**87,3 kA**	Zk1ftmax:	**11 mohm**
Ik2min:	**32,5 kA**	Zk1fnmin:	**5,29 mohm**
Ik1ftmax:	**21,9 kA**	Zk1fnmx:	**5,76 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**MTZ2 40 H1 extr + MICROLOGIC 5.0X LSI**		
Protection type:	**MT**		
Protection nominal current.:	**4000 A**	Magnetic rel. < I max. mag:	**Indirect contacts prot**
Number of poles:	**3**	Breaking capacity BC:	**66 kA**
Thermic trip setting:	**4000 A**	BC > Upstream short-circuit I max:	**66 >= 46,1 kA**
Magnetic trip setting:	**40000 A**	Standard:	**Ics - EN 60947**

Identification

Unit ref-mark:	**+CABINA GEN - BT.QGBT-TR2-QGBT-TR2 C-00**
Denomination 1:	Luce Scena
Denomination 2:	Presa Compagnia
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**0 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**0 kW**	Input frequency:	**50 Hz**
Reactive power:	**0 kVAR**	Transferred upstream power:	**0 kVA**
Load rated current Ib:	**0 A**	Total power:	**43,6 kVA**
Power factor:	**0,9**	Available power:	**43,6 kVA**
Rated voltage:	**400 V**		

Cables

Formation:	**5G25**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FTG18OM16 0,6/1 kV B2ca-s1a,d1,a1		
Insulating (line+neutral+PE):	**EPR**	K^2S^2 phase conductor:	**$1,278*10^7 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$1,278*10^7 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$1,278*10^7 A^2s$**
Line length:	**40 m**	Partial voltage drop by Ib:	**0 %**
Iz withstand current:	**88,9 A**	Total voltage drop by Ib:	**0,018 %**
Neutral withstand current:	**88,9 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**0,7 (Number of circuits: 3)**	Cable temperature by Ib:	**30 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**60,1 °C**
Total derating coefficient:	**0,7**	Ib<=In<=Iz Coordination:	**0<=63<=88,9 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**46,1 kA**	Ip1ft:	**15,1 kA**
Ikv max downstream:	**7,05 kA**	Ik1ftmin:	**2,63 kA**
Imagmax (maximum magnetic):	**2631 A**	Ik1fnmax:	**3,62 kA**
Ik max:	**7,05 kA**	Ip1fn:	**20,2 kA**
Ip:	**20,1 kA**	Ik1fnmin:	**2,7 kA**
Ik min:	**5,3 kA**	Zk min:	**32,8 mohm**
Ik2ftmax:	**6,25 kA**	Zk max:	**41,4 mohm**
Ip2ft:	**19,4 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**4,65 kA**	Zk2 max:	**0 mohm**
Ik2max:	**6,1 kA**	Zk1ftmin:	**66,1 mohm**
Ip2:	**19,2 kA**	Zk1ftmax:	**83,4 mohm**
Ik2min:	**4,59 kA**	Zk1fnmin:	**63,8 mohm**
Ik1ftmax:	**3,49 kA**	Zk1fnmx:	**81,1 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**COMPACT NSX160S + TM63G NSX**		
Protection type:	**MT**		
Protection nominal current.:	**160 A**	Neutral thermic trip setting:	**63 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**126 A**
Thermic trip setting:	**63 A**	Breaking capacity BC:	**100 kA**
Magnetic trip setting:	**126 A**	BC > Upstream short-circuit I max:	**100 >= 46,1 kA**
Magnetic rel. < I max. mag:	**126 < 2631 A**	Standard:	**Ics - EN 60947**

Identification

Unit ref-mark:	**+CABINA GEN - BT.QGBT-TR2-QGBT-TR2 C-16**
Denomination 1:	Riserva
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**0 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**0 kW**	Input frequency:	**50 Hz**
Reactive power:	**0 kVAR**	Transferred upstream power:	**0 kVA**
Load rated current Ib:	**0 A**	Total power:	**277,1 kVA**
Power factor:	**0,9**	Available power:	**277,1 kVA**
Rated voltage:	**400 V**		

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**46,1 kA**	Ip1ft:	**23,2 kA**
Ikv max downstream:	**46,1 kA**	Ik1ftmin:	**19,9 kA**
Imagmax (maximum magnetic):	**19856 A**	Ik1fnmax:	**43,7 kA**
Ik max:	**43 kA**	Ip1fn:	**32,6 kA**
Ip:	**32,4 kA**	Ik1fnmin:	**38,1 kA**
Ik min:	**37,5 kA**	Zk min:	**5,37 mohm**
Ik2ftmax:	**38,9 kA**	Zk max:	**5,85 mohm**
Ip2ft:	**31 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**32,2 kA**	Zk2 max:	**0 mohm**
Ik2max:	**37,3 kA**	Zk1ftmin:	**10,5 mohm**
Ip2:	**30,5 kA**	Zk1ftmax:	**11 mohm**
Ik2min:	**32,5 kA**	Zk1fnmin:	**5,29 mohm**
Ik1ftmax:	**21,9 kA**	Zk1fnmx:	**5,76 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**COMPACT NSX400H + MLOGIC 5.3E NSX (LSI) 400A**		
Protection type:	**MT**		
Protection nominal current.:	**400 A**	Neutral thermic trip setting:	**400 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**4000 A**
Thermic trip setting:	**400 A**	Breaking capacity BC:	**70 kA**
Magnetic trip setting:	**4000 A**	BC > Upstream short-circuit I max:	**70 >= 46,1 kA**
Magnetic rel. < I max. mag:	**4000 < 19856 A**	Standard:	**Ics - EN 60947**

Identification

Unit ref-mark:	**+CABINA GEN - BT.QGBT-TR2-QGBT-TR2 C-17**
Denomination 1:	Riserva
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**0 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**0 kW**	Input frequency:	**50 Hz**
Reactive power:	**0 kVAR**	Transferred upstream power:	**0 kVA**
Load rated current Ib:	**0 A**	Total power:	**277,1 kVA**
Power factor:	**0,9**	Available power:	**277,1 kVA**
Rated voltage:	**400 V**		

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**46,1 kA**	Ip1ft:	**23,2 kA**
Ikv max downstream:	**46,1 kA**	Ik1ftmin:	**19,9 kA**
Imagmax (maximum magnetic):	**19856 A**	Ik1fnmax:	**43,7 kA**
Ik max:	**43 kA**	Ip1fn:	**32,6 kA**
Ip:	**32,4 kA**	Ik1fnmin:	**38,1 kA**
Ik min:	**37,5 kA**	Zk min:	**5,37 mohm**
Ik2ftmax:	**38,9 kA**	Zk max:	**5,85 mohm**
Ip2ft:	**31 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**32,2 kA**	Zk2 max:	**0 mohm**
Ik2max:	**37,3 kA**	Zk1ftmin:	**10,5 mohm**
Ip2:	**30,5 kA**	Zk1ftmax:	**11 mohm**
Ik2min:	**32,5 kA**	Zk1fnmin:	**5,29 mohm**
Ik1ftmax:	**21,9 kA**	Zk1fnmx:	**5,76 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**COMPACT NSX400H + MLOGIC 5.3E NSX (LSI) 400A**		
Protection type:	**MT**		
Protection nominal current.:	**400 A**	Neutral thermic trip setting:	**400 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**4000 A**
Thermic trip setting:	**400 A**	Breaking capacity BC:	**70 kA**
Magnetic trip setting:	**4000 A**	BC > Upstream short-circuit I max:	**70 >= 46,1 kA**
Magnetic rel. < I max. mag:	**4000 < 19856 A**	Standard:	**Ics - EN 60947**

Identification

Unit ref-mark:	**+CABINA GEN - BT.QGBT-TR2-QGBT-TR2 C-02**
Denomination 1:	QESC1-N
Denomination 2:	Q.E. Scale 1
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**1,41 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**1,41 kW**	Input frequency:	**50 Hz**
Reactive power:	**0,735 kVAR**	Transferred upstream power:	**1,59 kVA**
Load rated current Ib:	**4,81 A**	Total power:	**22,2 kVA**
Power factor:	**0,886**	Available power:	**20,6 kVA**
Rated voltage:	**400 V**		

Cables

Formation:	**5G6**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FG16OM16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**HEPR**	K^2S^2 phase conductor:	**$7,362*10^5 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$7,362*10^5 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$7,362*10^5 A^2s$**
Line length:	**45 m**	Partial voltage drop by Ib:	**0,655 %**
Iz withstand current:	**37,8 A**	Total voltage drop by Ib:	**0,673 %**
Neutral withstand current:	**37,8 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**0,7 (Number of circuits: 3)**	Cable temperature by Ib:	**31 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**73 °C**
Total derating coefficient:	**0,7**	Ib<=In<=Iz Coordination:	**4,81<=32<=37,8 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**46,1 kA**	Ip1ft:	**15,1 kA**
Ikv max downstream:	**1,55 kA**	Ik1ftmin:	**0,574 kA**
Imagmax (maximum magnetic):	**574,3 A**	Ik1fnmax:	**0,78 kA**
Ik max:	**1,55 kA**	Ip1fn:	**20,2 kA**
Ip:	**20,1 kA**	Ik1fnmin:	**0,58 kA**
Ik min:	**1,15 kA**	Zk min:	**149 mohm**
Ik2ftmax:	**1,37 kA**	Zk max:	**190,5 mohm**
Ip2ft:	**19,4 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**1,01 kA**	Zk2 max:	**0 mohm**
Ik2max:	**1,34 kA**	Zk1ftmin:	**299 mohm**
Ip2:	**19,2 kA**	Zk1ftmax:	**382 mohm**
Ik2min:	**0,997 kA**	Zk1fnmin:	**294,4 mohm**
Ik1ftmax:	**0,772 kA**	Zk1fnmx:	**375,9 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**COMPACT NSX160H + TM32D NSX**		
Protection type:	**MT**		
Protection nominal current.:	**160 A**	Neutral thermic trip setting:	**32 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**400 A**
Thermic trip setting:	**32 A**	Breaking capacity BC:	**70 kA**
Magnetic trip setting:	**400 A**	BC > Upstream short-circuit I max:	**70 >= 46,1 kA**
Magnetic rel. < I max. mag:	**400 < 574,3 A**	Standard:	**Ics - EN 60947**

Identification

Unit ref-mark:	**+CABINA GEN - BT.QGBT-TR2-QGBT-TR2 C-03**
Denomination 1:	QESC2-N
Denomination 2:	Q.E. Scale 2
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**1,46 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**1,46 kW**	Input frequency:	**50 Hz**
Reactive power:	**0,76 kVAR**	Transferred upstream power:	**1,64 kVA**
Load rated current Ib:	**4,81 A**	Total power:	**22,2 kVA**
Power factor:	**0,887**	Available power:	**20,5 kVA**
Rated voltage:	**400 V**		

Cables

Formation:	**5G6**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FG16OM16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**HEPR**	K^2S^2 phase conductor:	**$7,362*10^5 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$7,362*10^5 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$7,362*10^5 A^2s$**
Line length:	**35 m**	Partial voltage drop by Ib:	**0,508 %**
Iz withstand current:	**37,8 A**	Total voltage drop by Ib:	**0,526 %**
Neutral withstand current:	**37,8 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**0,7 (Number of circuits: 3)**	Cable temperature by Ib:	**31 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**73 °C**
Total derating coefficient:	**0,7**	Ib<=In<=Iz Coordination:	**4,81<=32<=37,8 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**46,1 kA**	Ip1ft:	**15,1 kA**
Ikv max downstream:	**1,99 kA**	Ik1ftmin:	**0,737 kA**
Imagmax (maximum magnetic):	**736,7 A**	Ik1fnmax:	**1 kA**
Ik max:	**1,99 kA**	Ip1fn:	**20,2 kA**
Ip:	**20,1 kA**	Ik1fnmin:	**0,744 kA**
Ik min:	**1,48 kA**	Zk min:	**116,2 mohm**
Ik2ftmax:	**1,76 kA**	Zk max:	**148,4 mohm**
Ip2ft:	**19,4 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**1,3 kA**	Zk2 max:	**0 mohm**
Ik2max:	**1,72 kA**	Zk1ftmin:	**233,2 mohm**
Ip2:	**19,2 kA**	Zk1ftmax:	**297,8 mohm**
Ik2min:	**1,28 kA**	Zk1fnmin:	**229,8 mohm**
Ik1ftmax:	**0,99 kA**	Zk1fnmx:	**293,5 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**COMPACT NSX160H + TM32D NSX**		
Protection type:	**MT**		
Protection nominal current.:	**160 A**	Neutral thermic trip setting:	**32 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**400 A**
Thermic trip setting:	**32 A**	Breaking capacity BC:	**70 kA**
Magnetic trip setting:	**400 A**	BC > Upstream short-circuit I max:	**70 >= 46,1 kA**
Magnetic rel. < I max. mag:	**400 < 736,7 A**	Standard:	**Ics - EN 60947**

Identification

Unit ref-mark:	**+CABINA GEN - BT.QGBT-TR2-QGBT-TR2 C-04**
Denomination 1:	QESC3-N
Denomination 2:	Q.E. Scale 3
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**1,46 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**1,46 kW**	Input frequency:	**50 Hz**
Reactive power:	**0,76 kVAR**	Transferred upstream power:	**1,64 kVA**
Load rated current Ib:	**4,81 A**	Total power:	**22,2 kVA**
Power factor:	**0,887**	Available power:	**20,5 kVA**
Rated voltage:	**400 V**		

Cables

Formation:	**5G6**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FG16OM16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**HEPR**	K^2S^2 phase conductor:	**$7,362*10^5 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$7,362*10^5 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$7,362*10^5 A^2s$**
Line length:	**60 m**	Partial voltage drop by Ib:	**0,871 %**
Iz withstand current:	**37,8 A**	Total voltage drop by Ib:	**0,889 %**
Neutral withstand current:	**37,8 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**0,7 (Number of circuits: 3)**	Cable temperature by Ib:	**31 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**73 °C**
Total derating coefficient:	**0,7**	Ib<=In<=Iz Coordination:	**4,81<=32<=37,8 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**46,1 kA**	Ip1ft:	**15,1 kA**
Ikv max downstream:	**1,16 kA**	Ik1ftmin:	**0,432 kA**
Imagmax (maximum magnetic):	**431,6 A**	Ik1fnmax:	**0,587 kA**
Ik max:	**1,16 kA**	Ip1fn:	**20,2 kA**
Ip:	**20,1 kA**	Ik1fnmin:	**0,436 kA**
Ik min:	**0,865 kA**	Zk min:	**198,4 mohm**
Ik2ftmax:	**1,03 kA**	Zk max:	**253,7 mohm**
Ip2ft:	**19,4 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**0,762 kA**	Zk2 max:	**0 mohm**
Ik2max:	**1,01 kA**	Zk1ftmin:	**397,6 mohm**
Ip2:	**19,2 kA**	Zk1ftmax:	**508,3 mohm**
Ik2min:	**0,749 kA**	Zk1fnmin:	**390,8 mohm**
Ik1ftmax:	**0,581 kA**	Zk1fnmx:	**498,7 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**COMPACT NSX160H + TM32D NSX**		
Protection type:	**MT**		
Protection nominal current.:	**160 A**	Neutral thermic trip setting:	**32 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**400 A**
Thermic trip setting:	**32 A**	Breaking capacity BC:	**70 kA**
Magnetic trip setting:	**400 A**	BC > Upstream short-circuit I max:	**70 >= 46,1 kA**
Magnetic rel. < I max. mag:	**400 < 431,6 A**	Standard:	**Ics - EN 60947**

Identification

Unit ref-mark:	**+CABINA GEN - BT.QGBT-TR2-QGBT-TR2 C-05**
Denomination 1:	QECAM1-N
Denomination 2:	Q.E. Camerini P-2
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**9,66 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**9,66 kW**	Input frequency:	**50 Hz**
Reactive power:	**4,73 kVAR**	Transferred upstream power:	**10,8 kVA**
Load rated current Ib:	**15,6 A**	Total power:	**22,2 kVA**
Power factor:	**0,898**	Available power:	**11,4 kVA**
Rated voltage:	**400 V**		

Cables

Formation:	**5G16**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FG16OM16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**HEPR**	K^2S^2 phase conductor:	**$5,235*10^6 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$5,235*10^6 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$5,235*10^6 A^2s$**
Line length:	**60 m**	Partial voltage drop by Ib:	**0,587 %**
Iz withstand current:	**70 A**	Total voltage drop by Ib:	**0,604 %**
Neutral withstand current:	**70 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**0,7 (Number of circuits: 3)**	Cable temperature by Ib:	**33 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**42,5 °C**
Total derating coefficient:	**0,7**	Ib<=In<=Iz Coordination:	**15,6<=32<=70 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**46,1 kA**	Ip1ft:	**15,1 kA**
Ikv max downstream:	**3,14 kA**	Ik1ftmin:	**1,16 kA**
Imagmax (maximum magnetic):	**1165 A**	Ik1fnmax:	**1,58 kA**
Ik max:	**3,14 kA**	Ip1fn:	**20,2 kA**
Ip:	**20,1 kA**	Ik1fnmin:	**1,18 kA**
Ik min:	**2,34 kA**	Zk min:	**73,6 mohm**
Ik2ftmax:	**2,78 kA**	Zk max:	**93,8 mohm**
Ip2ft:	**19,4 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**2,06 kA**	Zk2 max:	**0 mohm**
Ik2max:	**2,72 kA**	Zk1ftmin:	**147,9 mohm**
Ip2:	**19,2 kA**	Zk1ftmax:	**188,4 mohm**
Ik2min:	**2,03 kA**	Zk1fnmin:	**145,3 mohm**
Ik1ftmax:	**1,56 kA**	Zk1fnmx:	**185,4 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**COMPACT NSX160H + TM32D NSX**		
Protection type:	**MT**		
Protection nominal current.:	**160 A**	Neutral thermic trip setting:	**32 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**400 A**
Thermic trip setting:	**32 A**	Breaking capacity BC:	**70 kA**
Magnetic trip setting:	**400 A**	BC > Upstream short-circuit I max:	**70 >= 46,1 kA**
Magnetic rel. < I max. mag:	**400 < 1165 A**	Standard:	**Ics - EN 60947**

Identification

Unit ref-mark:	**+CABINA GEN - BT.QGBT-TR2-QGBT-TR2 C-06**
Denomination 1:	QECAM2-N
Denomination 2:	Q.E. Camerini P-1
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**4,9 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**4,9 kW**	Input frequency:	**50 Hz**
Reactive power:	**2,41 kVAR**	Transferred upstream power:	**5,47 kVA**
Load rated current Ib:	**7,91 A**	Total power:	**22,2 kVA**
Power factor:	**0,897**	Available power:	**16,7 kVA**
Rated voltage:	**400 V**		

Cables

Formation:	**5G10**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FG16OM16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**HEPR**	K^2S^2 phase conductor:	**$2,045*10^6 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$2,045*10^6 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$2,045*10^6 A^2s$**
Line length:	**75 m**	Partial voltage drop by Ib:	**0,586 %**
Iz withstand current:	**52,5 A**	Total voltage drop by Ib:	**0,604 %**
Neutral withstand current:	**52,5 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**0,7 (Number of circuits: 3)**	Cable temperature by Ib:	**31,4 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**52,3 °C**
Total derating coefficient:	**0,7**	Ib<=In<=Iz Coordination:	**7,91<=32<=52,5 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**46,1 kA**	Ip1ft:	**15,1 kA**
Ikv max downstream:	**1,6 kA**	Ik1ftmin:	**0,594 kA**
Imagmax (maximum magnetic):	**594,1 A**	Ik1fnmax:	**0,807 kA**
Ik max:	**1,6 kA**	Ip1fn:	**20,2 kA**
Ip:	**20,1 kA**	Ik1fnmin:	**0,6 kA**
Ik min:	**1,19 kA**	Zk min:	**144,2 mohm**
Ik2ftmax:	**1,42 kA**	Zk max:	**184,2 mohm**
Ip2ft:	**19,4 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**1,05 kA**	Zk2 max:	**0 mohm**
Ik2max:	**1,39 kA**	Zk1ftmin:	**289,1 mohm**
Ip2:	**19,2 kA**	Zk1ftmax:	**369,3 mohm**
Ik2min:	**1,03 kA**	Zk1fnmin:	**284,7 mohm**
Ik1ftmax:	**0,799 kA**	Zk1fnmx:	**363,4 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**COMPACT NSX160H + TM32D NSX**		
Protection type:	**MT**		
Protection nominal current.:	**160 A**	Neutral thermic trip setting:	**32 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**400 A**
Thermic trip setting:	**32 A**	Breaking capacity BC:	**70 kA**
Magnetic trip setting:	**400 A**	BC > Upstream short-circuit I max:	**70 >= 46,1 kA**
Magnetic rel. < I max. mag:	**400 < 594,1 A**	Standard:	**Ics - EN 60947**

Identification

Unit ref-mark:	**+CABINA GEN - BT.QGBT-TR2-QGBT-TR2 C-07**
Denomination 1:	QESD-N
Denomination 2:	Q.E. Sala Danza
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**3,61 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**3,61 kW**	Input frequency:	**50 Hz**
Reactive power:	**1,8 kVAR**	Transferred upstream power:	**4,03 kVA**
Load rated current Ib:	**6,09 A**	Total power:	**22,2 kVA**
Power factor:	**0,895**	Available power:	**18,1 kVA**
Rated voltage:	**400 V**		

Cables

Formation:	**5G10**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FG16OM16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**HEPR**	K^2S^2 phase conductor:	**$2,045*10^6 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$2,045*10^6 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$2,045*10^6 A^2s$**
Line length:	**95 m**	Partial voltage drop by Ib:	**0,614 %**
Iz withstand current:	**52,5 A**	Total voltage drop by Ib:	**0,632 %**
Neutral withstand current:	**52,5 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**0,7 (Number of circuits: 3)**	Cable temperature by Ib:	**30,8 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**52,3 °C**
Total derating coefficient:	**0,7**	Ib<=In<=Iz Coordination:	**6,09<=32<=52,5 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**46,1 kA**	Ip1ft:	**15,1 kA**
Ikv max downstream:	**1,27 kA**	Ik1ftmin:	**0,47 kA**
Imagmax (maximum magnetic):	**469,9 A**	Ik1fnmax:	**0,639 kA**
Ik max:	**1,27 kA**	Ip1fn:	**20,2 kA**
Ip:	**20,1 kA**	Ik1fnmin:	**0,475 kA**
Ik min:	**0,942 kA**	Zk min:	**182,3 mohm**
Ik2ftmax:	**1,12 kA**	Zk max:	**233 mohm**
Ip2ft:	**19,4 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**0,829 kA**	Zk2 max:	**0 mohm**
Ik2max:	**1,1 kA**	Zk1ftmin:	**365,4 mohm**
Ip2:	**19,2 kA**	Zk1ftmax:	**466,9 mohm**
Ik2min:	**0,815 kA**	Zk1fnmin:	**359,2 mohm**
Ik1ftmax:	**0,632 kA**	Zk1fnmx:	**458,4 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**COMPACT NSX160H + TM32D NSX**		
Protection type:	**MT**		
Protection nominal current.:	**160 A**	Neutral thermic trip setting:	**32 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**400 A**
Thermic trip setting:	**32 A**	Breaking capacity BC:	**70 kA**
Magnetic trip setting:	**400 A**	BC > Upstream short-circuit I max:	**70 >= 46,1 kA**
Magnetic rel. < I max. mag:	**400 < 469,9 A**	Standard:	**Ics - EN 60947**

Identification

Unit ref-mark:	**+CABINA GEN - BT.QGBT-TR2-QGBT-TR2 C-08**
Denomination 1:	QELN-N
Denomination 2:	Q.E. Lato Nord
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**58,1 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**58,1 kW**	Input frequency:	**50 Hz**
Reactive power:	**28,4 kVAR**	Transferred upstream power:	**64,7 kVA**
Load rated current Ib:	**93,7 A**	Total power:	**110,9 kVA**
Power factor:	**0,898**	Available power:	**46,2 kVA**
Rated voltage:	**400 V**		

Cables

Formation:	**4x(1x120)+1G70**		
Type of lay:	13 - insul. single-core cables, armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FG16M16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**EPR**	K^2S^2 phase conductor:	**$2,945*10^8 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$2,945*10^8 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$1,518*10^8 A^2s$**
Line length:	**100 m**	Partial voltage drop by Ib:	**0,909 %**
Iz withstand current:	**280 A**	Total voltage drop by Ib:	**0,927 %**
Neutral withstand current:	**280 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**0,7 (Number of circuits: 3)**	Cable temperature by Ib:	**36,7 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**49,6 °C**
Total derating coefficient:	**0,7**	Ib<=In<=Iz Coordination:	**93,7<=160<=280 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**46,1 kA**	Ip1ft:	**15,1 kA**
Ikv max downstream:	**10,6 kA**	Ik1ftmin:	**3,46 kA**
Imagmax (maximum magnetic):	**3458 A**	Ik1fnmax:	**5,99 kA**
Ik max:	**10,6 kA**	Ip1fn:	**20,2 kA**
Ip:	**20,1 kA**	Ik1fnmin:	**4,66 kA**
Ik min:	**8,5 kA**	Zk min:	**21,7 mohm**
Ik2ftmax:	**9,63 kA**	Zk max:	**25,8 mohm**
Ip2ft:	**19,4 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**7,2 kA**	Zk2 max:	**0 mohm**
Ik2max:	**9,21 kA**	Zk1ftmin:	**51,9 mohm**
Ip2:	**19,2 kA**	Zk1ftmax:	**63,4 mohm**
Ik2min:	**7,36 kA**	Zk1fnmin:	**38,4 mohm**
Ik1ftmax:	**4,45 kA**	Zk1fnmx:	**46,8 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**COMPACT NSX160H + MLOGIC 5.2E NSX (LSI) 160A**		
Protection type:	**MT**		
Protection nominal current.:	**160 A**	Neutral thermic trip setting:	**160 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**800 A**
Thermic trip setting:	**160 A**	Breaking capacity BC:	**70 kA**
Magnetic trip setting:	**800 A**	BC > Upstream short-circuit I max:	**70 >= 46,1 kA**
Magnetic rel. < I max. mag:	**800 < 3458 A**	Standard:	**Ics - EN 60947**

Identification

Unit ref-mark:	**+CABINA GEN - BT.QGBT-TR2-QGBT-TR2 C-09**
Denomination 1:	QECS-N
Denomination 2:	Q.E. Centro Stella
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**7,21 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**7,21 kW**	Input frequency:	**50 Hz**
Reactive power:	**3,54 kVAR**	Transferred upstream power:	**8,03 kVA**
Load rated current Ib:	**14,4 A**	Total power:	**22,2 kVA**
Power factor:	**0,897**	Available power:	**14,1 kVA**
Rated voltage:	**400 V**		

Cables

Formation:	**5G6**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FG16OM16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**HEPR**	K^2S^2 phase conductor:	**$7,362*10^5 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$7,362*10^5 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$7,362*10^5 A^2s$**
Line length:	**35 m**	Partial voltage drop by Ib:	**1,1 %**
Iz withstand current:	**37,8 A**	Total voltage drop by Ib:	**1,12 %**
Neutral withstand current:	**37,8 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**0,7 (Number of circuits: 3)**	Cable temperature by Ib:	**38,7 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**73 °C**
Total derating coefficient:	**0,7**	Ib<=In<=Iz Coordination:	**14,4<=32<=37,8 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**46,1 kA**	Ip1ft:	**15,1 kA**
Ikv max downstream:	**1,99 kA**	Ik1ftmin:	**0,737 kA**
Imagmax (maximum magnetic):	**736,7 A**	Ik1fnmax:	**1 kA**
Ik max:	**1,99 kA**	Ip1fn:	**20,2 kA**
Ip:	**20,1 kA**	Ik1fnmin:	**0,744 kA**
Ik min:	**1,48 kA**	Zk min:	**116,2 mohm**
Ik2ftmax:	**1,76 kA**	Zk max:	**148,4 mohm**
Ip2ft:	**19,4 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**1,3 kA**	Zk2 max:	**0 mohm**
Ik2max:	**1,72 kA**	Zk1ftmin:	**233,2 mohm**
Ip2:	**19,2 kA**	Zk1ftmax:	**297,8 mohm**
Ik2min:	**1,28 kA**	Zk1fnmin:	**229,8 mohm**
Ik1ftmax:	**0,99 kA**	Zk1fnmx:	**293,5 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**COMPACT NSX160H + TM32D NSX**		
Protection type:	**MT**		
Protection nominal current.:	**160 A**	Neutral thermic trip setting:	**32 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**400 A**
Thermic trip setting:	**32 A**	Breaking capacity BC:	**70 kA**
Magnetic trip setting:	**400 A**	BC > Upstream short-circuit I max:	**70 >= 46,1 kA**
Magnetic rel. < I max. mag:	**400 < 736,7 A**	Standard:	**Ics - EN 60947**

Identification

Unit ref-mark:	**+CABINA GEN - BT.QGBT-TR2-QGBT-TR2 C-10**
Denomination 1:	QEFO-N
Denomination 2:	Q.E. Fosse Orchestra
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**1,65 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**1,65 kW**	Input frequency:	**50 Hz**
Reactive power:	**0,852 kVAR**	Transferred upstream power:	**1,85 kVA**
Load rated current Ib:	**4,81 A**	Total power:	**22,2 kVA**
Power factor:	**0,888**	Available power:	**20,3 kVA**
Rated voltage:	**400 V**		

Cables

Formation:	**5G6**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FG16OM16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**HEPR**	K^2S^2 phase conductor:	**$7,362*10^5 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$7,362*10^5 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$7,362*10^5 A^2s$**
Line length:	**35 m**	Partial voltage drop by Ib:	**0,458 %**
Iz withstand current:	**37,8 A**	Total voltage drop by Ib:	**0,476 %**
Neutral withstand current:	**37,8 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**0,7 (Number of circuits: 3)**	Cable temperature by Ib:	**31 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**73 °C**
Total derating coefficient:	**0,7**	Ib<=In<=Iz Coordination:	**4,81<=32<=37,8 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**46,1 kA**	Ip1ft:	**15,1 kA**
Ikv max downstream:	**1,99 kA**	Ik1ftmin:	**0,737 kA**
Imagmax (maximum magnetic):	**736,7 A**	Ik1fnmax:	**1 kA**
Ik max:	**1,99 kA**	Ip1fn:	**20,2 kA**
Ip:	**20,1 kA**	Ik1fnmin:	**0,744 kA**
Ik min:	**1,48 kA**	Zk min:	**116,2 mohm**
Ik2ftmax:	**1,76 kA**	Zk max:	**148,4 mohm**
Ip2ft:	**19,4 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**1,3 kA**	Zk2 max:	**0 mohm**
Ik2max:	**1,72 kA**	Zk1ftmin:	**233,2 mohm**
Ip2:	**19,2 kA**	Zk1ftmax:	**297,8 mohm**
Ik2min:	**1,28 kA**	Zk1fnmin:	**229,8 mohm**
Ik1ftmax:	**0,99 kA**	Zk1fnmx:	**293,5 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**COMPACT NSX160H + TM32D NSX**		
Protection type:	**MT**		
Protection nominal current.:	**160 A**	Neutral thermic trip setting:	**32 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**400 A**
Thermic trip setting:	**32 A**	Breaking capacity BC:	**70 kA**
Magnetic trip setting:	**400 A**	BC > Upstream short-circuit I max:	**70 >= 46,1 kA**
Magnetic rel. < I max. mag:	**400 < 736,7 A**	Standard:	**Ics - EN 60947**

Identification

Unit ref-mark:	**+CABINA GEN - BT.QGBT-TR2-QGBT-TR2 C-11**
Denomination 1:	QSCP-N
Denomination 2:	Q.E. Sottocentrale Pompaggi
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic terminal**		
Rated power:	**53 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**53 kW**	Input frequency:	**50 Hz**
Reactive power:	**25,7 kVAR**	Transferred upstream power:	**58,9 kVA**
Load rated current Ib:	**85 A**	Total power:	**62,4 kVA**
Power factor:	**0,9**	Available power:	**3,46 kVA**
Rated voltage:	**400 V**	Number of loads per unit:	**1**

Cables

Formation:	**4x(1x70)+1G35**		
Type of lay:	13 - insul. single-core cables, armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FG16M16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**EPR**	K^2S^2 phase conductor:	**$1,002*10^8 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$1,002*10^8 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$3,795*10^7 A^2s$**
Line length:	**30 m**	Partial voltage drop by Ib:	**0,388 %**
Iz withstand current:	**195,3 A**	Total voltage drop by Ib:	**0,406 %**
Neutral withstand current:	**195,3 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**0,7 (Number of circuits: 3)**	Cable temperature by Ib:	**41,4 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**42,7 °C**
Total derating coefficient:	**0,7**	Ib<=In<=Iz Coordination:	**85<=90<=195,3 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**46,1 kA**	Ip1ft:	**15,1 kA**
Ikv max downstream:	**19,4 kA**	Ik1ftmin:	**5,84 kA**
Imagmax (maximum magnetic):	**5835 A**	Ik1fnmax:	**11,6 kA**
Ik max:	**19,4 kA**	Ip1fn:	**20,2 kA**
Ip:	**20,1 kA**	Ik1fnmin:	**9,02 kA**
Ik min:	**15,6 kA**	Zk min:	**11,9 mohm**
Ik2ftmax:	**17,6 kA**	Zk max:	**14,1 mohm**
Ip2ft:	**19,4 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**13,1 kA**	Zk2 max:	**0 mohm**
Ik2max:	**16,8 kA**	Zk1ftmin:	**30,9 mohm**
Ip2:	**19,2 kA**	Zk1ftmax:	**37,6 mohm**
Ik2min:	**13,5 kA**	Zk1fnmin:	**19,9 mohm**
Ik1ftmax:	**7,47 kA**	Zk1fnmx:	**24,3 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**COMPACT NSX160H + MLOGIC 5.2E NSX (LSI) 160A**		
Protection type:	**MT**		
Protection nominal current.:	**160 A**	Neutral thermic trip setting:	**90 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**450 A**
Thermic trip setting:	**90 A**	Breaking capacity BC:	**70 kA**
Magnetic trip setting:	**450 A**	BC > Upstream short-circuit I max:	**70 >= 46,1 kA**
Magnetic rel. < I max. mag:	**450 < 5835 A**	Standard:	**Ics - EN 60947**

Identification

Unit ref-mark:	**+CABINA GEN - BT.QGBT-TR2-QGBT-TR2 C-12**
Denomination 1:	QEMAG-N
Denomination 2:	Q.E. Magazzino
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**5,21 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**5,21 kW**	Input frequency:	**50 Hz**
Reactive power:	**2,58 kVAR**	Transferred upstream power:	**5,81 kVA**
Load rated current Ib:	**9,62 A**	Total power:	**27,7 kVA**
Power factor:	**0,896**	Available power:	**21,9 kVA**
Rated voltage:	**400 V**		

Cables

Formation:	**3x(1x35)+1x16+1G16**		
Type of lay:	13 - insul. single-core cables, armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FG16M16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**EPR**	K^2S^2 phase conductor:	**$2,505*10^7 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$5,235*10^6 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$7,93*10^6 A^2s$**
Line length:	**30 m**	Partial voltage drop by Ib:	**0,116 %**
Iz withstand current:	**123,2 A**	Total voltage drop by Ib:	**0,133 %**
Neutral withstand current:	**74,9 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**0,7 (Number of circuits: 3)**	Cable temperature by Ib:	**30,4 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**36,3 °C**
Total derating coefficient:	**0,7**	Ib<=In<=Iz Coordination:	**9,62<=40<=123,2 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**46,1 kA**	Ip1ft:	**15,1 kA**
Ikv max downstream:	**12,1 kA**	Ik1ftmin:	**3,05 kA**
Imagmax (maximum magnetic):	**3054 A**	Ik1fnmax:	**4,22 kA**
Ik max:	**12,1 kA**	Ip1fn:	**20,2 kA**
Ip:	**20,1 kA**	Ik1fnmin:	**3,16 kA**
Ik min:	**9,26 kA**	Zk min:	**19,1 mohm**
Ik2ftmax:	**10,8 kA**	Zk max:	**23,7 mohm**
Ip2ft:	**19,4 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**7,9 kA**	Zk2 max:	**0 mohm**
Ik2max:	**10,4 kA**	Zk1ftmin:	**57,2 mohm**
Ip2:	**19,2 kA**	Zk1ftmax:	**71,8 mohm**
Ik2min:	**8,02 kA**	Zk1fnmin:	**54,6 mohm**
Ik1ftmax:	**4,04 kA**	Zk1fnmx:	**69,3 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**COMPACT NSX160H + MLOGIC 5.2E NSX (LSI) 100A**		
Protection type:	**MT**		
Protection nominal current.:	**160 A**	Neutral thermic trip setting:	**40 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**200 A**
Thermic trip setting:	**40 A**	Breaking capacity BC:	**70 kA**
Magnetic trip setting:	**200 A**	BC > Upstream short-circuit I max:	**70 >= 46,1 kA**
Magnetic rel. < I max. mag:	**200 < 3054 A**	Standard:	**Ics - EN 60947**

Identification

Unit ref-mark:	**+CABINA GEN - BT.QGBT-TR2-QGBT-TR2 C-13**
Denomination 1:	QELS-N
Denomination 2:	Q.E. Lato Sud
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**39,6 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**39,6 kW**	Input frequency:	**50 Hz**
Reactive power:	**19,3 kVAR**	Transferred upstream power:	**44 kVA**
Load rated current Ib:	**63,7 A**	Total power:	**121,2 kVA**
Power factor:	**0,899**	Available power:	**77,2 kVA**
Rated voltage:	**400 V**		

Cables

Formation:	**3x(1x150)+1x95+1G95**		
Type of lay:	13 - insul. single-core cables, armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FG16M16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**EPR**	K^2S^2 phase conductor:	**4,601*10 ^{8} A^2s**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**1,846*10 ^{8} A^2s**
Conductor material:	**COPPER**	K^2S^2 PE:	**2,796*10 ^{8} A^2s**
Line length:	**80 m**	Partial voltage drop by Ib:	**0,417 %**
Iz withstand current:	**324,8 A**	Total voltage drop by Ib:	**0,434 %**
Neutral withstand current:	**239,4 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**0,7 (Number of circuits: 3)**	Cable temperature by Ib:	**32,3 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**47,4 °C**
Total derating coefficient:	**0,7**	Ib<=In<=Iz Coordination:	**63,7<=175<=324,8 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**46,1 kA**	Ip1ft:	**16,8 kA**
Ikv max downstream:	**14,1 kA**	Ik1ftmin:	**5,12 kA**
Imagmax (maximum magnetic):	**5122 A**	Ik1fnmax:	**7,2 kA**
Ik max:	**14,1 kA**	Ip1fn:	**21,9 kA**
Ip:	**21,8 kA**	Ik1fnmin:	**5,62 kA**
Ik min:	**11,6 kA**	Zk min:	**16,3 mohm**
Ik2ftmax:	**12,9 kA**	Zk max:	**18,9 mohm**
Ip2ft:	**20,8 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**9,82 kA**	Zk2 max:	**0 mohm**
Ik2max:	**12,2 kA**	Zk1ftmin:	**36,1 mohm**
Ip2:	**20,4 kA**	Zk1ftmax:	**42,8 mohm**
Ik2min:	**10,1 kA**	Zk1fnmin:	**32 mohm**
Ik1ftmax:	**6,4 kA**	Zk1fnmx:	**38,9 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**COMPACT NSX250H + MLOGIC 5.2E NSX (LSI) 250A**		
Protection type:	**MT**		
Protection nominal current.:	**250 A**	Neutral thermic trip setting:	**175 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**875 A**
Thermic trip setting:	**175 A**	Breaking capacity BC:	**70 kA**
Magnetic trip setting:	**875 A**	BC > Upstream short-circuit I max:	**70 >= 46,1 kA**
Magnetic rel. < I max. mag:	**875 < 5122 A**	Standard:	**Ics - EN 60947**

Identification

Unit ref-mark:	**+CABINA GEN - BT.QGBT-TR2-QGBT-TR2 C-14**
Denomination 1:	QPALCO
Denomination 2:	Q.E. Palco
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**53 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**53 kW**	Input frequency:	**50 Hz**
Reactive power:	**25,7 kVAR**	Transferred upstream power:	**58,9 kVA**
Load rated current Ib:	**85,5 A**	Total power:	**62,4 kVA**
Power factor:	**0,9**	Available power:	**3,43 kVA**
Rated voltage:	**400 V**		

Cables

Formation:	**3x(1x240)+1x120+1G120**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FG16M16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**PVC**	K^2S^2 phase conductor:	**$7,618*10^8 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$1,904*10^8 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$2,945*10^8 A^2s$**
Line length:	**50 m**	Partial voltage drop by Ib:	**0,232 %**
Iz withstand current:	**607 A**	Total voltage drop by Ib:	**0,25 %**
Neutral withstand current:	**383 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**1 (Number of circuits: 1)**	Cable temperature by Ib:	**30,8 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**30,9 °C**
Total derating coefficient:	**1**	Ib<=In<=Iz Coordination:	**85,5<=90<=607 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**46,1 kA**	Ip1ft:	**15,1 kA**
Ikv max downstream:	**22 kA**	Ik1ftmin:	**8,98 kA**
Imagmax (maximum magnetic):	**8982 A**	Ik1fnmax:	**13 kA**
Ik max:	**22 kA**	Ip1fn:	**20,2 kA**
Ip:	**20,1 kA**	Ik1fnmin:	**11 kA**
Ik min:	**19,3 kA**	Zk min:	**10,5 mohm**
Ik2ftmax:	**20,2 kA**	Zk max:	**11,4 mohm**
Ip2ft:	**19,4 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**16 kA**	Zk2 max:	**0 mohm**
Ik2max:	**19 kA**	Zk1ftmin:	**22,3 mohm**
Ip2:	**19,2 kA**	Zk1ftmax:	**24,4 mohm**
Ik2min:	**16,7 kA**	Zk1fnmin:	**17,7 mohm**
Ik1ftmax:	**10,4 kA**	Zk1fnmx:	**19,9 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**COMPACT NSX160H + MLOGIC 5.2E NSX (LSI) 160A**		
Protection type:	**MT**		
Protection nominal current.:	**160 A**	Neutral thermic trip setting:	**90 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**450 A**
Thermic trip setting:	**90 A**	Breaking capacity BC:	**70 kA**
Magnetic trip setting:	**450 A**	BC > Upstream short-circuit I max:	**70 >= 46,1 kA**
Magnetic rel. < I max. mag:	**450 < 8982 A**	Standard:	**Ics - EN 60947**

Identification

Unit ref-mark:	**+CABINA GEN - BT.QGBT-TR2-QGBT-TR2 C-15**
Denomination 1:	UPS-C
Denomination 2:	Continuità
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**1,1 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**1,1 kW**	Input frequency:	**50 Hz**
Reactive power:	**0,526 kVAR**	Transferred upstream power:	**1,22 kVA**
Load rated current Ib:	**1,95 A**	Total power:	**43,6 kVA**
Power factor:	**0,902**	Available power:	**42,4 kVA**
Rated voltage:	**400 V**		

Cables

Formation:	**3x(1x240)+1x120+1G120**		
Type of lay:	13 - insul. single-core cables, armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FG16M16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**PVC**	K^2S^2 phase conductor:	**$7,618*10^8 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$1,904*10^8 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$2,945*10^8 A^2s$**
Line length:	**20 m**	Partial voltage drop by Ib:	**0,003 %**
Iz withstand current:	**507 A**	Total voltage drop by Ib:	**0,021 %**
Neutral withstand current:	**321 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**1 (Number of circuits: 1)**	Cable temperature by Ib:	**30 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**30,6 °C**
Total derating coefficient:	**1**	Ib<=In<=Iz Coordination:	**1,95<=63<=507 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**46,1 kA**	Ip1ft:	**15,1 kA**
Ikv max downstream:	**32,5 kA**	Ik1ftmin:	**13,8 kA**
Imagmax (maximum magnetic):	**13845 A**	Ik1fnmax:	**23,5 kA**
Ik max:	**31,5 kA**	Ip1fn:	**20,2 kA**
Ip:	**20,1 kA**	Ik1fnmin:	**20,2 kA**
Ik min:	**27,8 kA**	Zk min:	**7,32 mohm**
Ik2ftmax:	**29 kA**	Zk max:	**7,9 mohm**
Ip2ft:	**19,4 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**23,2 kA**	Zk2 max:	**0 mohm**
Ik2max:	**27,3 kA**	Zk1ftmin:	**14,8 mohm**
Ip2:	**19,2 kA**	Zk1ftmax:	**15,8 mohm**
Ik2min:	**24 kA**	Zk1fnmin:	**9,85 mohm**
Ik1ftmax:	**15,6 kA**	Zk1fnmx:	**10,9 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**COMPACT NSX160H + MLOGIC 5.2E NSX (LSI) 160A**		
Protection type:	**MT**		
Protection nominal current.:	**160 A**	Neutral thermic trip setting:	**63 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**315 A**
Thermic trip setting:	**63 A**	Breaking capacity BC:	**70 kA**
Magnetic trip setting:	**315 A**	BC > Upstream short-circuit I max:	**70 >= 46,1 kA**
Magnetic rel. < I max. mag:	**315 < 13845 A**	Standard:	**Ics - EN 60947**

Identification

Unit ref-mark:	**+CABINA GEN - BT.QGBT-TR2-QGBT-TR2 C-18**
Denomination 1:	Riserva
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**0 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**0 kW**	Input frequency:	**50 Hz**
Reactive power:	**0 kVAR**	Transferred upstream power:	**0 kVA**
Load rated current Ib:	**0 A**	Total power:	**173,2 kVA**
Power factor:	**0,9**	Available power:	**173,2 kVA**
Rated voltage:	**400 V**		

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**46,1 kA**	Ip1ft:	**16,8 kA**
Ikv max downstream:	**46,1 kA**	Ik1ftmin:	**19,9 kA**
Imagmax (maximum magnetic):	**19856 A**	Ik1fnmax:	**43,7 kA**
Ik max:	**43 kA**	Ip1fn:	**21,9 kA**
Ip:	**21,8 kA**	Ik1fnmin:	**38,1 kA**
Ik min:	**37,5 kA**	Zk min:	**5,37 mohm**
Ik2ftmax:	**38,9 kA**	Zk max:	**5,85 mohm**
Ip2ft:	**20,8 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**32,2 kA**	Zk2 max:	**0 mohm**
Ik2max:	**37,3 kA**	Zk1ftmin:	**10,5 mohm**
Ip2:	**20,4 kA**	Zk1ftmax:	**11 mohm**
Ik2min:	**32,5 kA**	Zk1fnmin:	**5,29 mohm**
Ik1ftmax:	**21,9 kA**	Zk1fnmx:	**5,76 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**COMPACT NSX250H + MLOGIC 5.2E NSX (LSI) 250A**		
Protection type:	**MT**		
Protection nominal current.:	**250 A**	Neutral thermic trip setting:	**250 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**1250 A**
Thermic trip setting:	**250 A**	Breaking capacity BC:	**70 kA**
Magnetic trip setting:	**1250 A**	BC > Upstream short-circuit I max:	**70 >= 46,1 kA**
Magnetic rel. < I max. mag:	**1250 < 19856 A**	Standard:	**Ics - EN 60947**

Identification

Unit ref-mark:	**+CABINA GEN - BT.QGBT-TR2-QGBT-TR2 C-19**
Denomination 1:	Riserva
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**0 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**0 kW**	Input frequency:	**50 Hz**
Reactive power:	**0 kVAR**	Transferred upstream power:	**0 kVA**
Load rated current Ib:	**0 A**	Total power:	**173,2 kVA**
Power factor:	**0,9**	Available power:	**173,2 kVA**
Rated voltage:	**400 V**		

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**46,1 kA**	Ip1ft:	**16,8 kA**
Ikv max downstream:	**46,1 kA**	Ik1ftmin:	**19,9 kA**
Imagmax (maximum magnetic):	**19856 A**	Ik1fnmax:	**43,7 kA**
Ik max:	**43 kA**	Ip1fn:	**21,9 kA**
Ip:	**21,8 kA**	Ik1fnmin:	**38,1 kA**
Ik min:	**37,5 kA**	Zk min:	**5,37 mohm**
Ik2ftmax:	**38,9 kA**	Zk max:	**5,85 mohm**
Ip2ft:	**20,8 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**32,2 kA**	Zk2 max:	**0 mohm**
Ik2max:	**37,3 kA**	Zk1ftmin:	**10,5 mohm**
Ip2:	**20,4 kA**	Zk1ftmax:	**11 mohm**
Ik2min:	**32,5 kA**	Zk1fnmin:	**5,29 mohm**
Ik1ftmax:	**21,9 kA**	Zk1fnmx:	**5,76 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**COMPACT NSX250H + MLOGIC 5.2E NSX (LSI) 250A**		
Protection type:	**MT**		
Protection nominal current.:	**250 A**	Neutral thermic trip setting:	**250 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**1250 A**
Thermic trip setting:	**250 A**	Breaking capacity BC:	**70 kA**
Magnetic trip setting:	**1250 A**	BC > Upstream short-circuit I max:	**70 >= 46,1 kA**
Magnetic rel. < I max. mag:	**1250 < 19856 A**	Standard:	**Ics - EN 60947**

Identification

Unit ref-mark:	**+CABINA GEN - BT.QGBT-TR2-QGBT-TR2 C-20**
Denomination 1:	RIF2 Quadro di
Denomination 2:	Rifasamento Automatico 2
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Terminal capacitance type**		
Rated power:	**0 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**0 kW**	Input frequency:	**50 Hz**
Reactive power:	**150 kVAR**	Transferred upstream power:	**150 kVA**
Load rated current Ib:	**216,5 A**	Total power:	**277,1 kVA**
Power factor:	**0**	Available power:	**127,1 kVA**
Rated voltage:	**400 V**	Number of loads per unit:	**1**

Cables

Formation:	**3x(2x150)+1x150+1G150**		
Type of lay:	13 - insul. single-core cables, armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FG16M16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**HEPR**	K^2S^2 phase conductor:	**$1,84*10^9 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$4,601*10^8 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$6,97*10^8 A^2s$**
Line length:	**20 m**	Partial voltage drop by Ib:	**-0,075 %**
Iz withstand current:	**742,4 A**	Total voltage drop by Ib:	**-0,057 %**
Neutral withstand current:	**464 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**0,8 (Number of circuits: 1)**	Cable temperature by Ib:	**35,1 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**47,4 °C**
Total derating coefficient:	**0,8**	Ib<=In<=Iz Coordination:	**216,5<=400<=742,4 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**46,1 kA**	Ip1ft:	**23,2 kA**
Ikv max downstream:	**37,7 kA**	Ik1ftmin:	**15,3 kA**
Imagmax (maximum magnetic):	**15281 A**	Ik1fnmax:	**27,9 kA**
Ik max:	**35,7 kA**	Ip1fn:	**32,6 kA**
Ip:	**32,4 kA**	Ik1fnmin:	**23,3 kA**
Ik min:	**31,1 kA**	Zk min:	**6,46 mohm**
Ik2ftmax:	**32,8 kA**	Zk max:	**7,06 mohm**
Ip2ft:	**31 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**26 kA**	Zk2 max:	**0 mohm**
Ik2max:	**31 kA**	Zk1ftmin:	**13,3 mohm**
Ip2:	**30,5 kA**	Zk1ftmax:	**14,4 mohm**
Ik2min:	**26,9 kA**	Zk1fnmin:	**8,28 mohm**
Ik1ftmax:	**17,4 kA**	Zk1fnmx:	**9,42 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**COMPACT NSX400H + MLOGIC 5.3A NSX (LSI) 400A**		
Protection type:	**MT**		
Protection nominal current.:	**400 A**	Neutral thermic trip setting:	**400 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**4000 A**
Thermic trip setting:	**400 A**	Breaking capacity BC:	**70 kA**
Magnetic trip setting:	**4000 A**	BC > Upstream short-circuit I max:	**70 >= 46,1 kA**
Magnetic rel. < I max. mag:	**4000 < 15281 A**	Standard:	**Ics - EN 60947**

Identification

Unit ref-mark:	**+CABINA GEN - BT.QSCAB-N-QSCAB-N C-00**
Denomination 1:	
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**6,71 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**6,71 kW**	Input frequency:	**50 Hz**
Reactive power:	**3,36 kVAR**	Transferred upstream power:	**7,51 kVA**
Load rated current Ib:	**11,9 A**	Total power:	**43,6 kVA**
Power factor:	**0,894**	Available power:	**36,1 kVA**
Rated voltage:	**400 V**		

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**10,3 kA**	Ip1ft:	**6,35 kA**
Ikv max downstream:	**10,3 kA**	Ik1ftmin:	**3,87 kA**
Imagmax (maximum magnetic):	**3871 A**	Ik1fnmax:	**5,4 kA**
Ik max:	**10,3 kA**	Ip1fn:	**6,64 kA**
Ip:	**7,15 kA**	Ik1fnmin:	**4,04 kA**
Ik min:	**7,82 kA**	Zk min:	**22,3 mohm**
Ik2ftmax:	**9,15 kA**	Zk max:	**28 mohm**
Ip2ft:	**7,9 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**6,86 kA**	Zk2 max:	**0 mohm**
Ik2max:	**8,96 kA**	Zk1ftmin:	**45,3 mohm**
Ip2:	**7,81 kA**	Zk1ftmax:	**56,7 mohm**
Ik2min:	**6,78 kA**	Zk1fnmin:	**42,7 mohm**
Ik1ftmax:	**5,1 kA**	Zk1fnmx:	**54,1 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iSW 63A**		
Protection nominal current.:	**63 A**	Overload current Ins:	**63 A**
Number of poles:	**4**	Breaking capacity BC:	**n.d.**

Identification

Unit ref-mark:	**+CABINA GEN - BT.QSCAB-N-QSCAB-N C-01**
Denomination 1:	Soccorritore
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**0,6 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**L3-N**
Power dimensioning:	**0,6 kW**	Input frequency:	**50 Hz**
Reactive power:	**0,291 kVAR**	Transferred upstream power:	**0,667 kVA**
Load rated current Ib:	**2,89 A**	Total power:	**5,78 kVA**
Power factor:	**0,9**	Available power:	**5,11 kVA**
Rated voltage:	**231 V**		

Cables

Formation:	**3G4**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FG16OM16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**HEPR**	K^2S^2 phase conductor:	**$3,272*10^5 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$3,272*10^5 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$3,272*10^5 A^2s$**
Line length:	**10 m**	Partial voltage drop by Ib:	**0,143 %**
Iz withstand current:	**49 A**	Total voltage drop by Ib:	**0,366 %**
Neutral withstand current:	**49 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**1 (Number of circuits: 1)**	Cable temperature by Ib:	**30,2 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**45,6 °C**
Total derating coefficient:	**1**	Ib<=In<=Iz Coordination:	**2,89<=25<=49 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**5,41 kA**	Ip1fn:	**3,66 kA**
Ikv max downstream:	**1,64 kA**	Ik1fnmin:	**1,22 kA**
Imagmax (maximum magnetic):	**1205 A**	Zk1ftmin:	**142,9 mohm**
Ik1ftmax:	**1,62 kA**	Zk1ftmax:	**182 mohm**
Ip1ft:	**3,51 kA**	Zk1fnmin:	**141 mohm**
Ik1ftmin:	**1,21 kA**	Zk1fnmx:	**180,1 mohm**
Ik1fnmax:	**1,64 kA**		

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60N-C - 25A**		
Protection type:	**MT**		
Protection nominal current.:	**25 A**	Magnetic rel. < I max. mag:	**250 < 1205 A**
Number of poles:	**2**	Breaking capacity BC:	**6 kA**
Release curve:	**C**	BC > Upstream short-circuit I max:	**6 >= 5,41 kA**
Thermic trip setting:	**25 A**	Standard:	**Icn - EN 60898**
Magnetic trip setting:	**250 A**		

Identification

Unit ref-mark:	**+CABINA GEN - BT.QSCAB-N-QSCAB-N C-02**
Denomination 1:	AUX QMT1
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**2,46 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**2,46 kW**	Input frequency:	**50 Hz**
Reactive power:	**1,24 kVAR**	Transferred upstream power:	**2,75 kVA**
Load rated current Ib:	**4,81 A**	Total power:	**11,1 kVA**
Power factor:	**0,892**	Available power:	**8,33 kVA**
Rated voltage:	**400 V**		

Cables

Formation:	**5G2.5**		
Type of lay:	2 - multi-core cables into circular protective pipes inside thermic insulated walls		
Laying formation:	Beam grouped, buried		
Cable designation	FG16OM16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**EPR**	K^2S^2 phase conductor:	**$1,278*10^5 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$1,278*10^5 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$1,278*10^5 A^2s$**
Line length:	**10 m**	Partial voltage drop by Ib:	**0,261 %**
Iz withstand current:	**22 A**	Total voltage drop by Ib:	**0,459 %**
Neutral withstand current:	**22 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**1 (Number of circuits: 1)**	Cable temperature by Ib:	**32,9 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**61,7 °C**
Total derating coefficient:	**1**	Ib<=In<=Iz Coordination:	**4,81<=16<=22 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**10,3 kA**	Ip1ft:	**3,05 kA**
Ikv max downstream:	**2,28 kA**	Ik1ftmin:	**0,847 kA**
Imagmax (maximum magnetic):	**846,9 A**	Ik1fnmax:	**1,15 kA**
Ik max:	**2,28 kA**	Ip1fn:	**3,17 kA**
Ip:	**3,33 kA**	Ik1fnmin:	**0,856 kA**
Ik min:	**1,7 kA**	Zk min:	**101,1 mohm**
Ik2ftmax:	**2,02 kA**	Zk max:	**129,2 mohm**
Ip2ft:	**3,68 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**1,5 kA**	Zk2 max:	**0 mohm**
Ik2max:	**1,98 kA**	Zk1ftmin:	**203 mohm**
Ip2:	**3,65 kA**	Zk1ftmax:	**259,1 mohm**
Ik2min:	**1,47 kA**	Zk1fnmin:	**199,9 mohm**
Ik1ftmax:	**1,14 kA**	Zk1fnmx:	**255,3 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60L-C - 16A + Vigi iC60 A 0,03 A**		
Protection type:	**MT+D**		
Protection nominal current.:	**16 A**	Neutral thermic trip setting:	**16 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**160 A**
Release curve:	**C**	Residual trip setting:	**0,03 A**
Operational class:	**A**	Breaking capacity BC:	**15 kA**
Thermic trip setting:	**16 A**	BC > Upstream short-circuit I max:	**15 >= 10,3 kA**
Magnetic trip setting:	**160 A**	Standard:	**Icn - EN 60898**
Magnetic rel. < I max. mag:	**160 < 846,9 A**		

Identification

Unit ref-mark:	**+CABINA GEN - BT.QSCAB-N-QSCAB-N C-03**
Denomination 1:	AUX QBT1
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic terminal**		
Rated power:	**0,3 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**L2-N**
Power dimensioning:	**0,3 kW**	Input frequency:	**50 Hz**
Reactive power:	**0,145 kVAR**	Transferred upstream power:	**0,333 kVA**
Load rated current Ib:	**1,44 A**	Total power:	**3,7 kVA**
Power factor:	**0,9**	Available power:	**3,36 kVA**
Rated voltage:	**231 V**	Number of loads per unit:	**1**

Cables

Formation:	**3G2.5**		
Type of lay:	2 - multi-core cables into circular protective pipes inside thermic insulated walls		
Laying formation:	Beam grouped, buried		
Cable designation	FG16OM16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**EPR**	K^2S^2 phase conductor:	**$1,278*10^5 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$1,278*10^5 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$1,278*10^5 A^2s$**
Line length:	**10 m**	Partial voltage drop by Ib:	**0,115 %**
Iz withstand current:	**25 A**	Total voltage drop by Ib:	**0,293 %**
Neutral withstand current:	**25 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**1 (Number of circuits: 1)**	Cable temperature by Ib:	**30,2 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**54,6 °C**
Total derating coefficient:	**1**	Ib<=In<=Iz Coordination:	**1,44<=16<=25 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**5,41 kA**	Ip1fn:	**3,11 kA**
Ikv max downstream:	**1,15 kA**	Ik1fnmin:	**0,853 kA**
Imagmax (maximum magnetic):	**846,8 A**	Zk1ftmin:	**203 mohm**
Ik1ftmax:	**1,14 kA**	Zk1ftmax:	**259,1 mohm**
Ip1ft:	**3,02 kA**	Zk1fnmin:	**201,2 mohm**
Ik1ftmin:	**0,847 kA**	Zk1fnmx:	**257,2 mohm**
Ik1fnmax:	**1,15 kA**		

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60N-C - 16A + Vigi iC60 A 0,03 A**		
Protection type:	**MT+D**		
Protection nominal current.:	**16 A**	Magnetic rel. < I max. mag:	**160 < 846,8 A**
Number of poles:	**2**	Residual trip setting:	**0,03 A**
Release curve:	**C**	Breaking capacity BC:	**6 kA**
Operational class:	**A**	BC > Upstream short-circuit I max:	**6 >= 5,41 kA**
Thermic trip setting:	**16 A**	Standard:	**Icn - EN 60898**
Magnetic trip setting:	**160 A**		

Identification

Unit ref-mark:	**+CABINA GEN - BT.QSCAB-N-QSCAB-N C-04**
Denomination 1:	AUX QBT2
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic terminal**		
Rated power:	**0,3 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**L1-N**
Power dimensioning:	**0,3 kW**	Input frequency:	**50 Hz**
Reactive power:	**0,145 kVAR**	Transferred upstream power:	**0,333 kVA**
Load rated current Ib:	**1,44 A**	Total power:	**3,7 kVA**
Power factor:	**0,9**	Available power:	**3,36 kVA**
Rated voltage:	**231 V**	Number of loads per unit:	**1**

Cables

Formation:	**3G2.5**		
Type of lay:	2 - multi-core cables into circular protective pipes inside thermic insulated walls		
Laying formation:	Beam grouped, buried		
Cable designation	FG16OM16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**EPR**	K^2S^2 phase conductor:	**$1,278*10^5 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$1,278*10^5 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$1,278*10^5 A^2s$**
Line length:	**10 m**	Partial voltage drop by Ib:	**0,115 %**
Iz withstand current:	**25 A**	Total voltage drop by Ib:	**0,297 %**
Neutral withstand current:	**25 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**1 (Number of circuits: 1)**	Cable temperature by Ib:	**30,2 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**54,6 °C**
Total derating coefficient:	**1**	Ib<=In<=Iz Coordination:	**1,44<=16<=25 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**5,41 kA**	Ip1fn:	**3,11 kA**
Ikv max downstream:	**1,15 kA**	Ik1fnmin:	**0,853 kA**
Imagmax (maximum magnetic):	**846,8 A**	Zk1ftmin:	**203 mohm**
Ik1ftmax:	**1,14 kA**	Zk1ftmax:	**259,1 mohm**
Ip1ft:	**3,02 kA**	Zk1fnmin:	**201,2 mohm**
Ik1ftmin:	**0,847 kA**	Zk1fnmx:	**257,2 mohm**
Ik1fnmax:	**1,15 kA**		

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60N-C - 16A + Vigi iC60 A 0,03 A**		
Protection type:	**MT+D**		
Protection nominal current.:	**16 A**	Magnetic rel. < I max. mag:	**160 < 846,8 A**
Number of poles:	**2**	Residual trip setting:	**0,03 A**
Release curve:	**C**	Breaking capacity BC:	**6 kA**
Operational class:	**A**	BC > Upstream short-circuit I max:	**6 >= 5,41 kA**
Thermic trip setting:	**16 A**	Standard:	**Icn - EN 60898**
Magnetic trip setting:	**160 A**		

Identification

Unit ref-mark:	**+CABINA GEN - BT.QSCAB-N-QSCAB-N C-05**
Denomination 1:	Protezione trafo 24V
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution preferential**		
Rated power:	**0,307 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**L3-N**
Power dimensioning:	**0,307 kW**	Input frequency:	**50 Hz**
Reactive power:	**0,203 kVAR**	Transferred upstream power:	**0,368 kVA**
Load rated current Ib:	**1,59 A**	Total power:	**2,31 kVA**
Power factor:	**0,834**	Available power:	**1,94 kVA**
Rated voltage:	**231 V**		

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**5,4 kA**	Ip1fn:	**2,72 kA**
Ikv max downstream:	**5,41 kA**	Ik1fnmin:	**4,05 kA**
Imagmax (maximum magnetic):	**3870 A**	Zk1ftmin:	**45,3 mohm**
Ik1ftmax:	**5,1 kA**	Zk1ftmax:	**56,7 mohm**
Ip1ft:	**2,63 kA**	Zk1fnmin:	**42,7 mohm**
Ik1ftmin:	**3,87 kA**	Zk1fnmx:	**54,2 mohm**
Ik1fnmax:	**5,4 kA**		

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60N-C - 10A**		
Protection type:	**MT**		
Protection nominal current.:	**10 A**	Magnetic rel. < I max. mag:	**100 < 3870 A**
Number of poles:	**2**	Breaking capacity BC:	**6 kA**
Release curve:	**C**	BC > Upstream short-circuit I max:	**6 >= 5,4 kA**
Thermic trip setting:	**10 A**	Standard:	**Icn - EN 60898**
Magnetic trip setting:	**100 A**		

Identification

Unit ref-mark:	**+CABINA GEN - BT.QSCAB-N-QSCAB-N C-09**
Denomination 1:	AUX TRAFO 1
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic terminal**		
Rated power:	**0,3 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**L1-N**
Power dimensioning:	**0,3 kW**	Input frequency:	**50 Hz**
Reactive power:	**0,145 kVAR**	Transferred upstream power:	**0,333 kVA**
Load rated current Ib:	**1,44 A**	Total power:	**1,39 kVA**
Power factor:	**0,9**	Available power:	**1,05 kVA**
Rated voltage:	**231 V**	Number of loads per unit:	**1**

Cables

Formation:	**3G2.5**		
Type of lay:	2 - multi-core cables into circular protective pipes inside thermic insulated walls		
Laying formation:	Beam grouped, buried		
Cable designation	FG16OM16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**EPR**	K^2S^2 phase conductor:	**$1,278*10^5 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$1,278*10^5 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$1,278*10^5 A^2s$**
Line length:	**10 m**	Partial voltage drop by Ib:	**0,115 %**
Iz withstand current:	**25 A**	Total voltage drop by Ib:	**0,297 %**
Neutral withstand current:	**25 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**1 (Number of circuits: 1)**	Cable temperature by Ib:	**30,2 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**33,5 °C**
Total derating coefficient:	**1**	Ib<=In<=Iz Coordination:	**1,44<=6<=25 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**5,41 kA**	Ip1fn:	**2,17 kA**
Ikv max downstream:	**1,15 kA**	Ik1fnmin:	**0,853 kA**
Imagmax (maximum magnetic):	**846,8 A**	Zk1ftmin:	**203 mohm**
Ik1ftmax:	**1,14 kA**	Zk1ftmax:	**259,1 mohm**
Ip1ft:	**2,12 kA**	Zk1fnmin:	**201,2 mohm**
Ik1ftmin:	**0,847 kA**	Zk1fnmx:	**257,2 mohm**
Ik1fnmax:	**1,15 kA**		

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60N-C - 6A + Vigi iC60 A 0,03 A**		
Protection type:	**MT+D**		
Protection nominal current.:	**6 A**	Magnetic rel. < I max. mag:	**60 < 846,8 A**
Number of poles:	**2**	Residual trip setting:	**0,03 A**
Release curve:	**C**	Breaking capacity BC:	**6 kA**
Operational class:	**A**	BC > Upstream short-circuit I max:	**6 >= 5,41 kA**
Thermic trip setting:	**6 A**	Standard:	**Icn - EN 60898**
Magnetic trip setting:	**60 A**		

Identification

Unit ref-mark:	**+CABINA GEN - BT.QSCAB-N-QSCAB-N C-10**
Denomination 1:	AUX TRAFO 2
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic terminal**		
Rated power:	**0,3 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**L3-N**
Power dimensioning:	**0,3 kW**	Input frequency:	**50 Hz**
Reactive power:	**0,145 kVAR**	Transferred upstream power:	**0,333 kVA**
Load rated current Ib:	**1,44 A**	Total power:	**1,39 kVA**
Power factor:	**0,9**	Available power:	**1,05 kVA**
Rated voltage:	**231 V**	Number of loads per unit:	**1**

Cables

Formation:	**3G2.5**		
Type of lay:	1 - not insul. single-core cables in circular protective pipes leyed inside thermical insulated walls		
Laying formation:	Beam grouped, buried		
Cable designation	FG16OM16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**EPR**	K^2S^2 phase conductor:	**$1,278*10^5 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$1,278*10^5 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$1,278*10^5 A^2s$**
Line length:	**10 m**	Partial voltage drop by Ib:	**0,115 %**
Iz withstand current:	**25 A**	Total voltage drop by Ib:	**0,338 %**
Neutral withstand current:	**25 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**1 (Number of circuits: 1)**	Cable temperature by Ib:	**30,2 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**33,5 °C**
Total derating coefficient:	**1**	Ib<=In<=Iz Coordination:	**1,44<=6<=25 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**5,41 kA**	Ip1fn:	**2,17 kA**
Ikv max downstream:	**1,15 kA**	Ik1fnmin:	**0,853 kA**
Imagmax (maximum magnetic):	**846,8 A**	Zk1ftmin:	**203 mohm**
Ik1ftmax:	**1,14 kA**	Zk1ftmax:	**259,1 mohm**
Ip1ft:	**2,12 kA**	Zk1fnmin:	**201,2 mohm**
Ik1ftmin:	**0,847 kA**	Zk1fnmx:	**257,2 mohm**
Ik1fnmax:	**1,15 kA**		

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60N-C - 6A + Vigi iC60 A 0,03 A**		
Protection type:	**MT+D**		
Protection nominal current.:	**6 A**	Magnetic rel. < I max. mag:	**60 < 846,8 A**
Number of poles:	**2**	Residual trip setting:	**0,03 A**
Release curve:	**C**	Breaking capacity BC:	**6 kA**
Operational class:	**A**	BC > Upstream short-circuit I max:	**6 >= 5,41 kA**
Thermic trip setting:	**6 A**	Standard:	**Icn - EN 60898**
Magnetic trip setting:	**60 A**		

Identification

Unit ref-mark:	**+CABINA GEN - BT.QSCAB-N-QSCAB-N C-11**
Denomination 1:	Circuito Illuminazione
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic terminal**		
Rated power:	**0,9 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**L1-N**
Power dimensioning:	**0,9 kW**	Input frequency:	**50 Hz**
Reactive power:	**0,436 kVAR**	Transferred upstream power:	**1 kVA**
Load rated current Ib:	**4,33 A**	Total power:	**2,31 kVA**
Power factor:	**0,9**	Available power:	**1,31 kVA**
Rated voltage:	**231 V**	Number of loads per unit:	**1**

Cables

Formation:	**3G1.5**		
Type of lay:	1 - not insul. single-core cables in circular protective pipes leyed inside thermical insulated walls		
Laying formation:	Beam grouped, buried		
Cable designation	FG16OM16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**EPR**	K^2S^2 phase conductor:	**$4,601*10^4 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$4,601*10^4 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$4,601*10^4 A^2s$**
Line length:	**10 m**	Partial voltage drop by Ib:	**0,574 %**
Iz withstand current:	**18,5 A**	Total voltage drop by Ib:	**0,757 %**
Neutral withstand current:	**18,5 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**1 (Number of circuits: 1)**	Cable temperature by Ib:	**33,3 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**47,5 °C**
Total derating coefficient:	**1**	Ib<=In<=Iz Coordination:	**4,33<=10<=18,5 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**5,41 kA**	Ip1fn:	**2,72 kA**
Ikv max downstream:	**0,752 kA**	Ik1fnmin:	**0,558 kA**
Imagmax (maximum magnetic):	**555,8 A**	Zk1ftmin:	**308,9 mohm**
Ik1ftmax:	**0,748 kA**	Zk1ftmax:	**394,7 mohm**
Ip1ft:	**2,63 kA**	Zk1fnmin:	**307,3 mohm**
Ik1ftmin:	**0,556 kA**	Zk1fnmx:	**392,9 mohm**
Ik1fnmax:	**0,752 kA**		

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60N-C - 10A + Vigi iC60 A 0,03 A**		
Protection type:	**MT+D**		
Protection nominal current.:	**10 A**	Magnetic rel. < I max. mag:	**100 < 555,8 A**
Number of poles:	**2**	Residual trip setting:	**0,03 A**
Release curve:	**C**	Breaking capacity BC:	**6 kA**
Operational class:	**A**	BC > Upstream short-circuit I max:	**6 >= 5,41 kA**
Thermic trip setting:	**10 A**	Standard:	**Icn - EN 60898**
Magnetic trip setting:	**100 A**		

Identification

Unit ref-mark:	**+CABINA GEN - BT.QSCAB-N-QSCAB-N C-12**
Denomination 1:	Circuito Forza Motrice
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic terminal**		
Rated power:	**1 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**L2-N**
Power dimensioning:	**1 kW**	Input frequency:	**50 Hz**
Reactive power:	**0,484 kVAR**	Transferred upstream power:	**1,11 kVA**
Load rated current Ib:	**4,81 A**	Total power:	**3,7 kVA**
Power factor:	**0,9**	Available power:	**2,58 kVA**
Rated voltage:	**231 V**	Number of loads per unit:	**1**

Cables

Formation:	**3G2.5**		
Type of lay:	1 - not insul. single-core cables in circular protective pipes leyed inside thermical insulated walls		
Laying formation:	Beam grouped, buried		
Cable designation	FG16OM16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**EPR**	K^2S^2 phase conductor:	**$1,278*10^5 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$1,278*10^5 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$1,278*10^5 A^2s$**
Line length:	**10 m**	Partial voltage drop by Ib:	**0,383 %**
Iz withstand current:	**25 A**	Total voltage drop by Ib:	**0,562 %**
Neutral withstand current:	**25 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**1 (Number of circuits: 1)**	Cable temperature by Ib:	**32,2 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**54,6 °C**
Total derating coefficient:	**1**	Ib<=In<=Iz Coordination:	**4,81<=16<=25 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**5,41 kA**	Ip1fn:	**3,11 kA**
Ikv max downstream:	**1,15 kA**	Ik1fnmin:	**0,853 kA**
Imagmax (maximum magnetic):	**846,8 A**	Zk1ftmin:	**203 mohm**
Ik1ftmax:	**1,14 kA**	Zk1ftmax:	**259,1 mohm**
Ip1ft:	**3,02 kA**	Zk1fnmin:	**201,2 mohm**
Ik1ftmin:	**0,847 kA**	Zk1fnmx:	**257,2 mohm**
Ik1fnmax:	**1,15 kA**		

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60N-C - 16A + Vigi iC60 A 0,03 A**		
Protection type:	**MT+D**		
Protection nominal current.:	**16 A**	Magnetic rel. < I max. mag:	**160 < 846,8 A**
Number of poles:	**2**	Residual trip setting:	**0,03 A**
Release curve:	**C**	Breaking capacity BC:	**6 kA**
Operational class:	**A**	BC > Upstream short-circuit I max:	**6 >= 5,41 kA**
Thermic trip setting:	**16 A**	Standard:	**Icn - EN 60898**
Magnetic trip setting:	**160 A**		

Identification

Unit ref-mark:	**+CABINA GEN - BT.QSCAB-N-QSCAB-N C-13**
Denomination 1:	Aliment. Rivelazione
Denomination 2:	Incendi
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic terminal**		
Rated power:	**0,25 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**L3-N**
Power dimensioning:	**0,25 kW**	Input frequency:	**50 Hz**
Reactive power:	**0,121 kVAR**	Transferred upstream power:	**0,278 kVA**
Load rated current Ib:	**1,2 A**	Total power:	**2,31 kVA**
Power factor:	**0,9**	Available power:	**2,03 kVA**
Rated voltage:	**231 V**	Number of loads per unit:	**1**

Cables

Formation:	**3G1.5**		
Type of lay:	1 - not insul. single-core cables in circular protective pipes leyed inside thermical insulated walls		
Laying formation:	Beam grouped, buried		
Cable designation	FG16OM16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**EPR**	K^2S^2 phase conductor:	**$4,601*10^4 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$4,601*10^4 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$4,601*10^4 A^2s$**
Line length:	**10 m**	Partial voltage drop by Ib:	**0,159 %**
Iz withstand current:	**18,5 A**	Total voltage drop by Ib:	**0,383 %**
Neutral withstand current:	**18,5 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**1 (Number of circuits: 1)**	Cable temperature by Ib:	**30,3 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**47,5 °C**
Total derating coefficient:	**1**	Ib<=In<=Iz Coordination:	**1,2<=10<=18,5 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**5,41 kA**	Ip1fn:	**2,72 kA**
Ikv max downstream:	**0,752 kA**	Ik1fnmin:	**0,558 kA**
Imagmax (maximum magnetic):	**555,8 A**	Zk1ftmin:	**308,9 mohm**
Ik1ftmax:	**0,748 kA**	Zk1ftmax:	**394,7 mohm**
Ip1ft:	**2,63 kA**	Zk1fnmin:	**307,3 mohm**
Ik1ftmin:	**0,556 kA**	Zk1fnmx:	**392,9 mohm**
Ik1fnmax:	**0,752 kA**		

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60N-C - 10A + Vigi iC60 A 0,03 A**		
Protection type:	**MT+D**		
Protection nominal current.:	**10 A**	Magnetic rel. < I max. mag:	**100 < 555,8 A**
Number of poles:	**2**	Residual trip setting:	**0,03 A**
Release curve:	**C**	Breaking capacity BC:	**6 kA**
Operational class:	**A**	BC > Upstream short-circuit I max:	**6 >= 5,41 kA**
Thermic trip setting:	**10 A**	Standard:	**Icn - EN 60898**
Magnetic trip setting:	**100 A**		

Identification

Unit ref-mark:	**+CABINA GEN - BT.QSCAB-N-QSCAB-N C-14**
Denomination 1:	Riserva
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**0 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**0 kW**	Input frequency:	**50 Hz**
Reactive power:	**0 kVAR**	Transferred upstream power:	**0 kVA**
Load rated current Ib:	**0 A**	Total power:	**22,2 kVA**
Power factor:	**0,9**	Available power:	**22,2 kVA**
Rated voltage:	**400 V**		

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**10,3 kA**	Ip1ft:	**3,92 kA**
Ikv max downstream:	**10,3 kA**	Ik1ftmin:	**3,87 kA**
Imagmax (maximum magnetic):	**3871 A**	Ik1fnmax:	**5,41 kA**
Ik max:	**10,3 kA**	Ip1fn:	**4,06 kA**
Ip:	**4,36 kA**	Ik1fnmin:	**4,05 kA**
Ik min:	**7,82 kA**	Zk min:	**22,3 mohm**
Ik2ftmax:	**9,15 kA**	Zk max:	**28 mohm**
Ip2ft:	**4,82 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**6,86 kA**	Zk2 max:	**0 mohm**
Ik2max:	**8,96 kA**	Zk1ftmin:	**45,3 mohm**
Ip2:	**4,77 kA**	Zk1ftmax:	**56,7 mohm**
Ik2min:	**6,78 kA**	Zk1fnmin:	**42,7 mohm**
Ik1ftmax:	**5,1 kA**	Zk1fnmx:	**54,2 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60L-C - 32A + Vigi iC60 A 0,03 A**		
Protection type:	**MT+D**		
Protection nominal current.:	**32 A**	Neutral thermic trip setting:	**32 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**320 A**
Release curve:	**C**	Residual trip setting:	**0,03 A**
Operational class:	**A**	Breaking capacity BC:	**15 kA**
Thermic trip setting:	**32 A**	BC > Upstream short-circuit I max:	**15 >= 10,3 kA**
Magnetic trip setting:	**320 A**	Standard:	**Icn - EN 60898**
Magnetic rel. < I max. mag:	**320 < 3871 A**		

Identification

Unit ref-mark:	**+CABINA GEN - BT.QSCAB-N-QSCAB-N C-15**
Denomination 1:	Riserva
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**0 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**0 kW**	Input frequency:	**50 Hz**
Reactive power:	**0 kVAR**	Transferred upstream power:	**0 kVA**
Load rated current Ib:	**0 A**	Total power:	**11,1 kVA**
Power factor:	**0,9**	Available power:	**11,1 kVA**
Rated voltage:	**400 V**		

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**10,3 kA**	Ip1ft:	**3,03 kA**
Ikv max downstream:	**10,3 kA**	Ik1ftmin:	**3,87 kA**
Imagmax (maximum magnetic):	**3871 A**	Ik1fnmax:	**5,41 kA**
Ik max:	**10,3 kA**	Ip1fn:	**3,14 kA**
Ip:	**3,36 kA**	Ik1fnmin:	**4,05 kA**
Ik min:	**7,82 kA**	Zk min:	**22,3 mohm**
Ik2ftmax:	**9,15 kA**	Zk max:	**28 mohm**
Ip2ft:	**3,73 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**6,86 kA**	Zk2 max:	**0 mohm**
Ik2max:	**8,96 kA**	Zk1ftmin:	**45,3 mohm**
Ip2:	**3,69 kA**	Zk1ftmax:	**56,7 mohm**
Ik2min:	**6,78 kA**	Zk1fnmin:	**42,7 mohm**
Ik1ftmax:	**5,1 kA**	Zk1fnmx:	**54,2 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60L-C - 16A + Vigi iC60 A 0,03 A**		
Protection type:	**MT+D**		
Protection nominal current.:	**16 A**	Neutral thermic trip setting:	**16 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**160 A**
Release curve:	**C**	Residual trip setting:	**0,03 A**
Operational class:	**A**	Breaking capacity BC:	**15 kA**
Thermic trip setting:	**16 A**	BC > Upstream short-circuit I max:	**15 >= 10,3 kA**
Magnetic trip setting:	**160 A**	Standard:	**Icn - EN 60898**
Magnetic rel. < I max. mag:	**160 < 3871 A**		

Identification

Unit ref-mark:	**+CABINA GEN - BT.QSCAB-N-QSCAB-N C-16**
Denomination 1:	Riserva
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**0 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**L2-N**
Power dimensioning:	**0 kW**	Input frequency:	**50 Hz**
Reactive power:	**0 kVAR**	Transferred upstream power:	**0 kVA**
Load rated current Ib:	**0 A**	Total power:	**7,39 kVA**
Power factor:	**0,9**	Available power:	**7,39 kVA**
Rated voltage:	**231 V**		

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**5,41 kA**	Ip1fn:	**4,14 kA**
Ikv max downstream:	**5,41 kA**	Ik1fnmin:	**4,05 kA**
Imagmax (maximum magnetic):	**3870 A**	Zk1ftmin:	**45,3 mohm**
Ik1ftmax:	**5,1 kA**	Zk1ftmax:	**56,7 mohm**
Ip1ft:	**3,99 kA**	Zk1fnmin:	**42,7 mohm**
Ik1ftmin:	**3,87 kA**	Zk1fnmx:	**54,2 mohm**
Ik1fnmax:	**5,41 kA**		

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60N-C - 32A + Vigi iC60 A 0,03 A**		
Protection type:	**MT+D**		
Protection nominal current.:	**32 A**	Magnetic rel. < I max. mag:	**320 < 3870 A**
Number of poles:	**2**	Residual trip setting:	**0,03 A**
Release curve:	**C**	Breaking capacity BC:	**6 kA**
Operational class:	**A**	BC > Upstream short-circuit I max:	**6 >= 5,41 kA**
Thermic trip setting:	**32 A**	Standard:	**Icn - EN 60898**
Magnetic trip setting:	**320 A**		

Identification

Unit ref-mark:	**+CABINA GEN - BT.QSCAB-N-QSCAB-N C-17**
Denomination 1:	Riserva
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**0 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**L2-N**
Power dimensioning:	**0 kW**	Input frequency:	**50 Hz**
Reactive power:	**0 kVAR**	Transferred upstream power:	**0 kVA**
Load rated current Ib:	**0 A**	Total power:	**3,7 kVA**
Power factor:	**0,9**	Available power:	**3,7 kVA**
Rated voltage:	**231 V**		

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**5,41 kA**	Ip1fn:	**3,11 kA**
Ikv max downstream:	**5,41 kA**	Ik1fnmin:	**4,05 kA**
Imagmax (maximum magnetic):	**3870 A**	Zk1ftmin:	**45,3 mohm**
Ik1ftmax:	**5,1 kA**	Zk1ftmax:	**56,7 mohm**
Ip1ft:	**3,02 kA**	Zk1fnmin:	**42,7 mohm**
Ik1ftmin:	**3,87 kA**	Zk1fnmx:	**54,2 mohm**
Ik1fnmax:	**5,41 kA**		

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60N-C - 16A + Vigi iC60 A 0,03 A**		
Protection type:	**MT+D**		
Protection nominal current.:	**16 A**	Magnetic rel. < I max. mag:	**160 < 3870 A**
Number of poles:	**2**	Residual trip setting:	**0,03 A**
Release curve:	**C**	Breaking capacity BC:	**6 kA**
Operational class:	**A**	BC > Upstream short-circuit I max:	**6 >= 5,41 kA**
Thermic trip setting:	**16 A**	Standard:	**Icn - EN 60898**
Magnetic trip setting:	**160 A**		

Identification

Unit ref-mark:	**+CABINA GEN - BT.QSCAB-N-QSCAB-N C-18**
Denomination 1:	Riserva
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**0 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**L2-N**
Power dimensioning:	**0 kW**	Input frequency:	**50 Hz**
Reactive power:	**0 kVAR**	Transferred upstream power:	**0 kVA**
Load rated current Ib:	**0 A**	Total power:	**2,31 kVA**
Power factor:	**0,9**	Available power:	**2,31 kVA**
Rated voltage:	**231 V**		

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**5,41 kA**	Ip1fn:	**2,72 kA**
Ikv max downstream:	**5,41 kA**	Ik1fnmin:	**4,05 kA**
Imagmax (maximum magnetic):	**3870 A**	Zk1ftmin:	**45,3 mohm**
Ik1ftmax:	**5,1 kA**	Zk1ftmax:	**56,7 mohm**
Ip1ft:	**2,63 kA**	Zk1fnmin:	**42,7 mohm**
Ik1ftmin:	**3,87 kA**	Zk1fnmx:	**54,2 mohm**
Ik1fnmax:	**5,41 kA**		

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60N-C - 10A + Vigi iC60 A 0,03 A**		
Protection type:	**MT+D**		
Protection nominal current.:	**10 A**	Magnetic rel. < I max. mag:	**100 < 3870 A**
Number of poles:	**2**	Residual trip setting:	**0,03 A**
Release curve:	**C**	Breaking capacity BC:	**6 kA**
Operational class:	**A**	BC > Upstream short-circuit I max:	**6 >= 5,41 kA**
Thermic trip setting:	**10 A**	Standard:	**Icn - EN 60898**
Magnetic trip setting:	**100 A**		

Identification

Unit ref-mark:	**+CABINA GEN - BT.QSCAB-N-AUX TR**
Denomination 1:	Trasformatore
Denomination 2:	230/24Vac
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution unit with transformer preferential**		
Rated power:	**0,307 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**L3-N**
Power dimensioning:	**0,307 kW**	Input frequency:	**50 Hz**
Reactive power:	**0,203 kVAR**	Transferred upstream power:	**0,368 kVA**
Load rated current Ib:	**1,59 A**	Total power:	**1,15 kVA**
Power factor:	**0,834**	Available power:	**0,785 kVA**
Rated voltage:	**231 V**		

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**5,4 kA**	Ip1fn:	**2,72 kA**
Ikv max downstream:	**1,52 kA**	Ik1fnmin:	**1,32 kA**
Imagmax (maximum magnetic):	**1323 A**	Zk1fnmin:	**15,8 mohm**
Ik1fnmax:	**1,52 kA**	Zk1fnmx:	**17,2 mohm**

Transformer

Transformer type:	**Normal**	Transformer short circuit losses. Pkr:	**60 W**
Winding connections:	**Monofase**	Transformer short-circuit voltage	**6 %**
Ecocompatible design:	UE N.548/2014 (dal 07/2021)	Transformer no-load losses Pv0:	**7,2 W**
Transformer rated power:	**2 kVA**	Transformer no-load currents Iv0:	**2,9 %**
Primary voltage:	**231 V**	Ilr/In ratio:	**10,5**
No-load secondary voltage:	**24 V**	Insulation type:	**In resin**
Windings ratio N1/N2:	**9,625**		

Identification

Unit ref-mark:	**+CABINA GEN - BT.QSCAB-N-QSCAB-N C-06**
Denomination 1:	AUX 24V
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic preferential terminal**		
Rated power:	**0,1 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**L3-N**
Power dimensioning:	**0,1 kW**	Input frequency:	**50 Hz**
Reactive power:	**0,048 kVAR**	Transferred upstream power:	**0,111 kVA**
Load rated current Ib:	**4,63 A**	Total power:	**0,384 kVA**
Power factor:	**0,9**	Available power:	**0,273 kVA**
Rated voltage:	**24 V**	Number of loads per unit:	**1**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**1,52 kA**	Ip1fn:	**2,54 kA**
Ikv max downstream:	**1,52 kA**	Ik1fnmin:	**1,32 kA**
Imagmax (maximum magnetic):	**1323 A**	Zk1fnmin:	**15,8 mohm**
Ik1fnmax:	**1,52 kA**	Zk1fnmx:	**17,2 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60N-C - 16A**		
Protection type:	**MT**		
Protection nominal current.:	**16 A**	Magnetic rel. < I max. mag:	**160 < 1323 A**
Number of poles:	**2**	Breaking capacity BC:	**6 kA**
Release curve:	**C**	BC > Upstream short-circuit I max:	**6 >= 1,52 kA**
Thermic trip setting:	**16 A**	Standard:	**Icn - EN 60898**
Magnetic trip setting:	**160 A**		

Identification

Unit ref-mark:	**+CABINA GEN - BT.QSCAB-N-QSCAB-N C-07**
Denomination 1:	AUX 24V
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic preferential terminal**		
Rated power:	**0,1 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**L3-N**
Power dimensioning:	**0,1 kW**	Input frequency:	**50 Hz**
Reactive power:	**0,048 kVAR**	Transferred upstream power:	**0,111 kVA**
Load rated current Ib:	**4,63 A**	Total power:	**0,384 kVA**
Power factor:	**0,9**	Available power:	**0,273 kVA**
Rated voltage:	**24 V**	Number of loads per unit:	**1**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**1,52 kA**	Ip1fn:	**2,54 kA**
Ikv max downstream:	**1,52 kA**	Ik1fnmin:	**1,32 kA**
Imagmax (maximum magnetic):	**1323 A**	Zk1fnmin:	**15,8 mohm**
Ik1fnmax:	**1,52 kA**	Zk1fnmx:	**17,2 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60N-C - 16A**		
Protection type:	**MT**		
Protection nominal current.:	**16 A**	Magnetic rel. < I max. mag:	**160 < 1323 A**
Number of poles:	**2**	Breaking capacity BC:	**6 kA**
Release curve:	**C**	BC > Upstream short-circuit I max:	**6 >= 1,52 kA**
Thermic trip setting:	**16 A**	Standard:	**Icn - EN 60898**
Magnetic trip setting:	**160 A**		

Identification

Unit ref-mark:	**+CABINA GEN - BT.QSCAB-N-QSCAB-N C-08**
Denomination 1:	AUX 24V
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic preferential terminal**		
Rated power:	**0,1 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**L3-N**
Power dimensioning:	**0,1 kW**	Input frequency:	**50 Hz**
Reactive power:	**0,048 kVAR**	Transferred upstream power:	**0,111 kVA**
Load rated current Ib:	**4,63 A**	Total power:	**0,384 kVA**
Power factor:	**0,9**	Available power:	**0,273 kVA**
Rated voltage:	**24 V**	Number of loads per unit:	**1**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**1,52 kA**	Ip1fn:	**2,54 kA**
Ikv max downstream:	**1,52 kA**	Ik1fnmin:	**1,32 kA**
Imagmax (maximum magnetic):	**1323 A**	Zk1fnmin:	**15,8 mohm**
Ik1fnmax:	**1,52 kA**	Zk1fnmx:	**17,2 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60N-C - 16A**		
Protection type:	**MT**		
Protection nominal current.:	**16 A**	Magnetic rel. < I max. mag:	**160 < 1323 A**
Number of poles:	**2**	Breaking capacity BC:	**6 kA**
Release curve:	**C**	BC > Upstream short-circuit I max:	**6 >= 1,52 kA**
Thermic trip setting:	**16 A**	Standard:	**Icn - EN 60898**
Magnetic trip setting:	**160 A**		

Identification

Unit ref-mark:	**+CABINA GEN - BT.QEUPS-C-SGA**
Denomination 1:	
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**1,1 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**1,1 kW**	Input frequency:	**50 Hz**
Reactive power:	**0,526 kVAR**	Transferred upstream power:	**1,22 kVA**
Load rated current Ib:	**1,95 A**	Total power:	**43,6 kVA**
Power factor:	**0,902**	Available power:	**42,4 kVA**
Rated voltage:	**400 V**		

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**32,5 kA**	Ip1ft:	**11,2 kA**
Ikv max downstream:	**32,5 kA**	Ik1ftmin:	**13,8 kA**
Imagmax (maximum magnetic):	**13845 A**	Ik1fnmax:	**23,5 kA**
Ik max:	**31,5 kA**	Ip1fn:	**12,9 kA**
Ip:	**14,7 kA**	Ik1fnmin:	**20,2 kA**
Ik min:	**27,8 kA**	Zk min:	**7,32 mohm**
Ik2ftmax:	**29 kA**	Zk max:	**7,9 mohm**
Ip2ft:	**14,1 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**23,2 kA**	Zk2 max:	**0 mohm**
Ik2max:	**27,3 kA**	Zk1ftmin:	**14,8 mohm**
Ip2:	**13,8 kA**	Zk1ftmax:	**15,8 mohm**
Ik2min:	**24 kA**	Zk1fnmin:	**9,85 mohm**
Ik1ftmax:	**15,6 kA**	Zk1fnmx:	**10,9 mohm**

Identification

Unit ref-mark:	**+CABINA GEN - BT.QEUPS-C-UPS**
Denomination 1:	
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**1,1 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**1,1 kW**	Input frequency:	**50 Hz**
Reactive power:	**0,526 kVAR**	Transferred upstream power:	**1,22 kVA**
Load rated current Ib:	**1,95 A**	Total power:	**220 kVA**
Power factor:	**0,902**	Available power:	**218,8 kVA**
Rated voltage:	**400 V**		

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**32,5 kA**	Ip1ft:	**11,2 kA**
Ikv max downstream:	**32,5 kA**	Ik1ftmin:	**13,8 kA**
Imagmax (maximum magnetic):	**13845 A**	Ik1fnmax:	**23,5 kA**
Ik max:	**31,5 kA**	Ip1fn:	**12,9 kA**
Ip:	**14,7 kA**	Ik1fnmin:	**20,2 kA**
Ik min:	**27,8 kA**	Zk min:	**7,32 mohm**
Ik2ftmax:	**29 kA**	Zk max:	**7,9 mohm**
Ip2ft:	**14,1 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**23,2 kA**	Zk2 max:	**0 mohm**
Ik2max:	**27,3 kA**	Zk1ftmin:	**14,8 mohm**
Ip2:	**13,8 kA**	Zk1ftmax:	**15,8 mohm**
Ik2min:	**24 kA**	Zk1fnmin:	**9,85 mohm**
Ik1ftmax:	**15,6 kA**	Zk1fnmx:	**10,9 mohm**

UPS

UPS type:	**On-Line (Double conversion)**		
Link type:	**By-Pass line present**		
Manufacturer:	**SOCOMEC**	Output voltage:	**400 V**
Mark:	**MODULYS 200**	Output frequency:	**50 Hz**
Apparent power:	**200 kVA**	Efficiency:	**0,96**
Active power:	**180 kW**	Efficiency in By-Pass:	**0,98**
Input voltage:	**400 V**	Ilr/In ratio:	**2**

Identification

Unit ref-mark:	**+CABINA GEN - BT.QEUPS-C-**
Denomination 1:	
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**1,08 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**1,08 kW**	Input frequency:	**50 Hz**
Reactive power:	**0,523 kVAR**	Transferred upstream power:	**1,2 kVA**
Load rated current Ib:	**1,92 A**	Total power:	**133 kVA**
Power factor:	**0,9**	Available power:	**131,8 kVA**
Rated voltage:	**400 V**		

Cables

Formation:	**3x(1x240)+1x120+1G120**		
Type of lay:	13 - insul. single-core cables, armed or not armed on punched dridges		
Laying formation:	Coat on horizontal or vertical punched dridges (or not)		
Cable designation	FG16M16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**EPR**	K^2S^2 phase conductor:	**$1,178*10^{9} A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$2,945*10^{8} A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$4,461*10^{8} A^2s$**
Line length:	**20 m**	Partial voltage drop by Ib:	**0,003 %**
Iz withstand current:	**634 A**	Total voltage drop by Ib:	**0,023 %**
Neutral withstand current:	**400 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**1 (Number of circuits: 1)**	Cable temperature by Ib:	**30 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**35,5 °C**
Total derating coefficient:	**1**	Ib<=In<=Iz Coordination:	**1,92<=192<=634 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**32,5 kA**	Ip1ft:	**11,2 kA**
Ikv max downstream:	**24,5 kA**	Ik1ftmin:	**10 kA**
Imagmax (maximum magnetic):	**10044 A**	Ik1fnmax:	**15,3 kA**
Ik max:	**24,5 kA**	Ip1fn:	**12,9 kA**
Ip:	**14,7 kA**	Ik1fnmin:	**12,7 kA**
Ik min:	**21,4 kA**	Zk min:	**9,43 mohm**
Ik2ftmax:	**22,6 kA**	Zk max:	**10,3 mohm**
Ip2ft:	**14,1 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**17,8 kA**	Zk2 max:	**0 mohm**
Ik2max:	**21,2 kA**	Zk1ftmin:	**19,8 mohm**
Ip2:	**13,8 kA**	Zk1ftmax:	**21,8 mohm**
Ik2min:	**18,5 kA**	Zk1fnmin:	**15,1 mohm**
Ik1ftmax:	**11,7 kA**	Zk1fnmx:	**17,3 mohm**

Identification

Unit ref-mark:	**+CABINA GEN - BT.QEUPS-C-IUPSC**
Denomination 1:	
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**1,35 kW**	Distribution system:	**TN-S**
Coefficient:	**0,8**	Phases link:	**3P+N**
Power dimensioning:	**1,08 kW**	Input frequency:	**50 Hz**
Reactive power:	**0,523 kVAR**	Transferred upstream power:	**1,2 kVA**
Load rated current Ib:	**1,92 A**	Total power:	**133 kVA**
Power factor:	**0,9**	Available power:	**131,8 kVA**
Rated voltage:	**400 V**		

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**24,5 kA**	Ip1ft:	**9,11 kA**
Ikv max downstream:	**24,5 kA**	Ik1ftmin:	**10 kA**
Imagmax (maximum magnetic):	**10044 A**	Ik1fnmax:	**15,3 kA**
Ik max:	**24,5 kA**	Ip1fn:	**10,1 kA**
Ip:	**12 kA**	Ik1fnmin:	**12,7 kA**
Ik min:	**21,4 kA**	Zk min:	**9,43 mohm**
Ik2ftmax:	**22,6 kA**	Zk max:	**10,3 mohm**
Ip2ft:	**11,6 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**17,8 kA**	Zk2 max:	**0 mohm**
Ik2max:	**21,2 kA**	Zk1ftmin:	**19,8 mohm**
Ip2:	**11,2 kA**	Zk1ftmax:	**21,8 mohm**
Ik2min:	**18,5 kA**	Zk1fnmin:	**15,1 mohm**
Ik1ftmax:	**11,7 kA**	Zk1fnmx:	**17,3 mohm**

Protection

Protection manufacturer:	**ABB**		
Protection ref-mark:	**Tmax T5D**		
Protection nominal current.:	**400 A**	Overload current Ins:	**192 A**
Number of poles:	**4**	Breaking capacity BC:	**n.d.**

Identification

Unit ref-mark:	**+CABINA GEN - BT.QEUPS-C-QEUPS-C C-02**
Denomination 1:	QESC-C
Denomination 2:	Q.E. Centro Stella
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**0,15 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**0,15 kW**	Input frequency:	**50 Hz**
Reactive power:	**0,073 kVAR**	Transferred upstream power:	**0,167 kVA**
Load rated current Ib:	**0,481 A**	Total power:	**22,2 kVA**
Power factor:	**0,9**	Available power:	**22 kVA**
Rated voltage:	**400 V**		

Cables

Formation:	**5G6**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FG16OM16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**HEPR**	K^2S^2 phase conductor:	**$7,362*10^5 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$7,362*10^5 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$7,362*10^5 A^2s$**
Line length:	**100 m**	Partial voltage drop by Ib:	**0,155 %**
Iz withstand current:	**37,8 A**	Total voltage drop by Ib:	**0,179 %**
Neutral withstand current:	**37,8 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**0,7 (Number of circuits: 3)**	Cable temperature by Ib:	**30 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**73 °C**
Total derating coefficient:	**0,7**	Ib<=In<=Iz Coordination:	**0,481<=32<=37,8 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**24,5 kA**	Ip1ft:	**4,7 kA**
Ikv max downstream:	**0,693 kA**	Ik1ftmin:	**0,256 kA**
Imagmax (maximum magnetic):	**255,9 A**	Ik1fnmax:	**0,345 kA**
Ik max:	**0,693 kA**	Ip1fn:	**5,18 kA**
Ip:	**5,51 kA**	Ik1fnmin:	**0,256 kA**
Ik min:	**0,515 kA**	Zk min:	**333,5 mohm**
Ik2ftmax:	**0,612 kA**	Zk max:	**426,4 mohm**
Ip2ft:	**5,43 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**0,453 kA**	Zk2 max:	**0 mohm**
Ik2max:	**0,6 kA**	Zk1ftmin:	**670,8 mohm**
Ip2:	**5,37 kA**	Zk1ftmax:	**857,4 mohm**
Ik2min:	**0,446 kA**	Zk1fnmin:	**669,2 mohm**
Ik1ftmax:	**0,344 kA**	Zk1fnmx:	**855,8 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**NG125L-C**		
Protection type:	**MT**		
Protection nominal current.:	**32 A**	Neutral thermic trip setting:	**32 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**320 A**
Release curve:	**C**	Breaking capacity BC:	**37,5 kA**
Thermic trip setting:	**32 A**	BC > Upstream short-circuit I max:	**37,5 >= 24,5 kA**
Magnetic trip setting:	**320 A**	Standard:	**Ics - EN 60947**
Magnetic rel. < I max. mag:	**Indirect contacts prot**		

Identification

Unit ref-mark:	**+CABINA GEN - BT.QEUPS-C-QEUPS-C C-01**
Denomination 1:	QEUF-C
Denomination 2:	Q.E. Uffici
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**1,2 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**1,2 kW**	Input frequency:	**50 Hz**
Reactive power:	**0,581 kVAR**	Transferred upstream power:	**1,33 kVA**
Load rated current Ib:	**2,41 A**	Total power:	**27,7 kVA**
Power factor:	**0,9**	Available power:	**26,4 kVA**
Rated voltage:	**400 V**		

Cables

Formation:	**5G10**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FG16OM16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**HEPR**	K^2S^2 phase conductor:	**$2,045*10^6 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$2,045*10^6 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$2,045*10^6 A^2s$**
Line length:	**80 m**	Partial voltage drop by Ib:	**0,256 %**
Iz withstand current:	**52,5 A**	Total voltage drop by Ib:	**0,279 %**
Neutral withstand current:	**52,5 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**0,7 (Number of circuits: 3)**	Cable temperature by Ib:	**30,1 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**64,8 °C**
Total derating coefficient:	**0,7**	Ib<=In<=Iz Coordination:	**2,41<=40<=52,5 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**24,5 kA**	Ip1ft:	**4,7 kA**
Ikv max downstream:	**1,47 kA**	Ik1ftmin:	**0,54 kA**
Imagmax (maximum magnetic):	**540,2 A**	Ik1fnmax:	**0,729 kA**
Ik max:	**1,47 kA**	Ip1fn:	**5,18 kA**
Ip:	**5,51 kA**	Ik1fnmin:	**0,543 kA**
Ik min:	**1,09 kA**	Zk min:	**157,3 mohm**
Ik2ftmax:	**1,3 kA**	Zk max:	**200,8 mohm**
Ip2ft:	**5,43 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**0,961 kA**	Zk2 max:	**0 mohm**
Ik2max:	**1,27 kA**	Zk1ftmin:	**318,4 mohm**
Ip2:	**5,37 kA**	Zk1ftmax:	**406,2 mohm**
Ik2min:	**0,946 kA**	Zk1fnmin:	**316,7 mohm**
Ik1ftmax:	**0,725 kA**	Zk1fnmx:	**404,4 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**NG125L-C**		
Protection type:	**MT**		
Protection nominal current.:	**40 A**	Neutral thermic trip setting:	**40 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**400 A**
Release curve:	**C**	Breaking capacity BC:	**37,5 kA**
Thermic trip setting:	**40 A**	BC > Upstream short-circuit I max:	**37,5 >= 24,5 kA**
Magnetic trip setting:	**400 A**	Standard:	**Ics - EN 60947**
Magnetic rel. < I max. mag:	**400 < 540,2 A**		

Identification

Unit ref-mark:	**+CABINA GEN - BT.QEUPS-C-QEUPS-C C-03**
Denomination 1:	Riserva
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**0 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**0 kW**	Input frequency:	**50 Hz**
Reactive power:	**0 kVAR**	Transferred upstream power:	**0 kVA**
Load rated current Ib:	**0 A**	Total power:	**27,7 kVA**
Power factor:	**0,9**	Available power:	**27,7 kVA**
Rated voltage:	**400 V**		

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**24,5 kA**	Ip1ft:	**4,7 kA**
Ikv max downstream:	**24,5 kA**	Ik1ftmin:	**10 kA**
Imagmax (maximum magnetic):	**10044 A**	Ik1fnmax:	**15,3 kA**
Ik max:	**24,5 kA**	Ip1fn:	**5,18 kA**
Ip:	**5,51 kA**	Ik1fnmin:	**12,7 kA**
Ik min:	**21,4 kA**	Zk min:	**9,43 mohm**
Ik2ftmax:	**22,6 kA**	Zk max:	**10,3 mohm**
Ip2ft:	**5,43 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**17,8 kA**	Zk2 max:	**0 mohm**
Ik2max:	**21,2 kA**	Zk1ftmin:	**19,8 mohm**
Ip2:	**5,37 kA**	Zk1ftmax:	**21,8 mohm**
Ik2min:	**18,5 kA**	Zk1fnmin:	**15,1 mohm**
Ik1ftmax:	**11,7 kA**	Zk1fnmx:	**17,3 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**NG125L-C**		
Protection type:	**MT**		
Protection nominal current.:	**40 A**	Neutral thermic trip setting:	**40 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**400 A**
Release curve:	**C**	Breaking capacity BC:	**37,5 kA**
Thermic trip setting:	**40 A**	BC > Upstream short-circuit I max:	**37,5 >= 24,5 kA**
Magnetic trip setting:	**400 A**	Standard:	**Ics - EN 60947**
Magnetic rel. < I max. mag:	**400 < 10044 A**		

Identification

Unit ref-mark:	**+CABINA GEN - BT.QEUPS-C-QEUPS-C C-04**
Denomination 1:	Riserva
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**0 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**L1-N**
Power dimensioning:	**0 kW**	Input frequency:	**50 Hz**
Reactive power:	**0 kVAR**	Transferred upstream power:	**0 kVA**
Load rated current Ib:	**0 A**	Total power:	**7,39 kVA**
Power factor:	**0,9**	Available power:	**7,39 kVA**
Rated voltage:	**231 V**		

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**15,3 kA**	Ip1fn:	**6,74 kA**
Ikv max downstream:	**15,3 kA**	Ik1fnmin:	**12,7 kA**
Imagmax (maximum magnetic):	**10042 A**	Zk1ftmin:	**19,8 mohm**
Ik1ftmax:	**11,7 kA**	Zk1ftmax:	**21,8 mohm**
Ip1ft:	**6,12 kA**	Zk1fnmin:	**15,1 mohm**
Ik1ftmin:	**10 kA**	Zk1fnmx:	**17,3 mohm**
Ik1fnmax:	**15,3 kA**		

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**NG125L-C**		
Protection type:	**MT**		
Protection nominal current.:	**32 A**	Magnetic rel. < I max. mag:	**320 < 10042 A**
Number of poles:	**2**	Breaking capacity BC:	**75 kA**
Release curve:	**C**	BC > Upstream short-circuit I max:	**75 >= 15,3 kA**
Thermic trip setting:	**32 A**	Standard:	**Ics - EN 60947**
Magnetic trip setting:	**320 A**		

Identification

Unit ref-mark:	**+CABINA GEN - BT.QEUPS-C-QEUPS-C C-05**
Denomination 1:	Riserva
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**0 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**0 kW**	Input frequency:	**50 Hz**
Reactive power:	**0 kVAR**	Transferred upstream power:	**0 kVA**
Load rated current Ib:	**0 A**	Total power:	**22,2 kVA**
Power factor:	**0,9**	Available power:	**22,2 kVA**
Rated voltage:	**400 V**		

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**24,5 kA**	Ip1ft:	**4,64 kA**
Ikv max downstream:	**24,5 kA**	Ik1ftmin:	**10 kA**
Imagmax (maximum magnetic):	**10044 A**	Ik1fnmax:	**15,3 kA**
Ik max:	**24,5 kA**	Ip1fn:	**5,15 kA**
Ip:	**5,55 kA**	Ik1fnmin:	**12,7 kA**
Ik min:	**21,4 kA**	Zk min:	**9,43 mohm**
Ik2ftmax:	**22,6 kA**	Zk max:	**10,3 mohm**
Ip2ft:	**5,45 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**17,8 kA**	Zk2 max:	**0 mohm**
Ik2max:	**21,2 kA**	Zk1ftmin:	**19,8 mohm**
Ip2:	**5,37 kA**	Zk1ftmax:	**21,8 mohm**
Ik2min:	**18,5 kA**	Zk1fnmin:	**15,1 mohm**
Ik1ftmax:	**11,7 kA**	Zk1fnmx:	**17,3 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**NG125N-C + Vigi NG125 A SI 0,03 A**		
Protection type:	**MT+D**		
Protection nominal current.:	**32 A**	Neutral thermic trip setting:	**32 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**320 A**
Release curve:	**C**	Residual trip setting:	**0,03 A**
Operational class:	**A**	Breaking capacity BC:	**25 kA**
Thermic trip setting:	**32 A**	BC > Upstream short-circuit I max:	**25 >= 24,5 kA**
Magnetic trip setting:	**320 A**	Standard:	**Icu - EN 60947**
Magnetic rel. < I max. mag:	**320 < 10044 A**		

Identification

Unit ref-mark:	**+CABINA GEN - BT.QEUPS-C-QEUPS-C C-06**
Denomination 1:	Riserva
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**0 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**0 kW**	Input frequency:	**50 Hz**
Reactive power:	**0 kVAR**	Transferred upstream power:	**0 kVA**
Load rated current Ib:	**0 A**	Total power:	**11,1 kVA**
Power factor:	**0,9**	Available power:	**11,1 kVA**
Rated voltage:	**400 V**		

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**24,5 kA**	Ip1ft:	**3,84 kA**
Ikv max downstream:	**24,5 kA**	Ik1ftmin:	**10 kA**
Imagmax (maximum magnetic):	**10044 A**	Ik1fnmax:	**15,3 kA**
Ik max:	**24,5 kA**	Ip1fn:	**4,14 kA**
Ip:	**4,31 kA**	Ik1fnmin:	**12,7 kA**
Ik min:	**21,4 kA**	Zk min:	**9,43 mohm**
Ik2ftmax:	**22,6 kA**	Zk max:	**10,3 mohm**
Ip2ft:	**4,24 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**17,8 kA**	Zk2 max:	**0 mohm**
Ik2max:	**21,2 kA**	Zk1ftmin:	**19,8 mohm**
Ip2:	**4,2 kA**	Zk1ftmax:	**21,8 mohm**
Ik2min:	**18,5 kA**	Zk1fnmin:	**15,1 mohm**
Ik1ftmax:	**11,7 kA**	Zk1fnmx:	**17,3 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**NG125L-C**		
Protection type:	**MT**		
Protection nominal current.:	**16 A**	Neutral thermic trip setting:	**16 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**160 A**
Release curve:	**C**	Breaking capacity BC:	**37,5 kA**
Thermic trip setting:	**16 A**	BC > Upstream short-circuit I max:	**37,5 >= 24,5 kA**
Magnetic trip setting:	**160 A**	Standard:	**Ics - EN 60947**
Magnetic rel. < I max. mag:	**160 < 10044 A**		

Identification

Unit ref-mark:	**+CABINA GEN - BT.QSIC-E-QESIC-E C-00**
Denomination 1:	
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**3,21 kW**	Distribution system:	**TN-S**
Coefficient:	**0,8**	Phases link:	**3P+N**
Power dimensioning:	**2,57 kW**	Input frequency:	**50 Hz**
Reactive power:	**1,29 kVAR**	Transferred upstream power:	**2,87 kVA**
Load rated current Ib:	**4,73 A**	Total power:	**43,6 kVA**
Power factor:	**0,894**	Available power:	**40,8 kVA**
Rated voltage:	**400 V**		

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**4,62 kA**	Ip1ft:	**2,86 kA**
Ikv max downstream:	**4,62 kA**	Ik1ftmin:	**1,49 kA**
Imagmax (maximum magnetic):	**1486 A**	Ik1fnmax:	**2,02 kA**
Ik max:	**4,62 kA**	Ip1fn:	**2,93 kA**
Ip:	**5,88 kA**	Ik1fnmin:	**1,51 kA**
Ik min:	**3,48 kA**	Zk min:	**50 mohm**
Ik2ftmax:	**4,1 kA**	Zk max:	**63,1 mohm**
Ip2ft:	**5,64 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**3,02 kA**	Zk2 max:	**0 mohm**
Ik2max:	**4 kA**	Zk1ftmin:	**116,6 mohm**
Ip2:	**5,54 kA**	Zk1ftmax:	**147,6 mohm**
Ik2min:	**3,01 kA**	Zk1fnmin:	**113,8 mohm**
Ik1ftmax:	**1,98 kA**	Zk1fnmx:	**144,7 mohm**

Protection

Protection manufacturer:	**ABB**		
Protection ref-mark:	**Tmax T5D**		
Protection nominal current.:	**400 A**	Overload current Ins:	**63 A**
Number of poles:	**4**	Breaking capacity BC:	**n.d.**

Identification

Unit ref-mark:	**+CABINA GEN - BT.QSIC-E-QESIC-E C-01**
Denomination 1:	QEST1
Denomination 2:	Q.E. Estrattori Fumo 1
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**0 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**0 kW**	Input frequency:	**50 Hz**
Reactive power:	**0 kVAR**	Transferred upstream power:	**0 kVA**
Load rated current Ib:	**0 A**	Total power:	**43,6 kVA**
Power factor:	**0,9**	Available power:	**43,6 kVA**
Rated voltage:	**400 V**		

Cables

Formation:	**4x(1x35)+1G16**		
Type of lay:	13 - insul. single-core cables, armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FG16M16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**EPR**	K^2S^2 phase conductor:	**$2,505*10^7 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$2,505*10^7 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$7,93*10^6 A^2s$**
Line length:	**90 m**	Partial voltage drop by Ib:	**0 %**
Iz withstand current:	**123,2 A**	Total voltage drop by Ib:	**0,18 %**
Neutral withstand current:	**123,2 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**0,7 (Number of circuits: 3)**	Cable temperature by Ib:	**30 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**45,7 °C**
Total derating coefficient:	**0,7**	Ib<=In<=Iz Coordination:	**0<=63<=123,2 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**4,62 kA**	Ip1ft:	**2,86 kA**
Ikv max downstream:	**2,3 kA**	Ik1ftmin:	**0,627 kA**
Imagmax (maximum magnetic):	**626,5 A**	Ik1fnmax:	**1,08 kA**
Ik max:	**2,3 kA**	Ip1fn:	**2,93 kA**
Ip:	**5 kA**	Ik1fnmin:	**0,803 kA**
Ik min:	**1,72 kA**	Zk min:	**100,5 mohm**
Ik2ftmax:	**2,03 kA**	Zk max:	**127,4 mohm**
Ip2ft:	**4,83 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**1,49 kA**	Zk2 max:	**0 mohm**
Ik2max:	**1,99 kA**	Zk1ftmin:	**274,9 mohm**
Ip2:	**4,75 kA**	Zk1ftmax:	**350,2 mohm**
Ik2min:	**1,49 kA**	Zk1fnmin:	**214,5 mohm**
Ik1ftmax:	**0,84 kA**	Zk1fnmx:	**273,1 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**C120N-C**		
Protection type:	**MT**		
Protection nominal current.:	**100 A**	Neutral thermic trip setting:	**100 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**1000 A**
Release curve:	**C**	Breaking capacity BC:	**7,5 kA**
Thermic trip setting:	**100 A**	BC > Upstream short-circuit I max:	**7,5 >= 4,62 kA**
Magnetic trip setting:	**1000 A**	Standard:	**Ics - EN 60947**
Magnetic rel. < I max. mag:	**Indirect contacts prot**		

Identification

Unit ref-mark:	**+CABINA GEN - BT.QSIC-E-QESIC-E C-02**
Denomination 1:	QEST2
Denomination 2:	Q.E. Estrattori Fumo 2
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**0 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**0 kW**	Input frequency:	**50 Hz**
Reactive power:	**0 kVAR**	Transferred upstream power:	**0 kVA**
Load rated current Ib:	**0 A**	Total power:	**34,6 kVA**
Power factor:	**0,9**	Available power:	**34,6 kVA**
Rated voltage:	**400 V**		

Cables

Formation:	**5G16**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FG16OM16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**EPR**	K^2S^2 phase conductor:	**$5,235*10^6 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$5,235*10^6 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$5,235*10^6 A^2s$**
Line length:	**75 m**	Partial voltage drop by Ib:	**0 %**
Iz withstand current:	**70 A**	Total voltage drop by Ib:	**0,18 %**
Neutral withstand current:	**70 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**0,7 (Number of circuits: 3)**	Cable temperature by Ib:	**30 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**60,6 °C**
Total derating coefficient:	**0,7**	Ib<=In<=Iz Coordination:	**0<=50<=70 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**4,62 kA**	Ip1ft:	**2,38 kA**
Ikv max downstream:	**1,65 kA**	Ik1ftmin:	**0,58 kA**
Imagmax (maximum magnetic):	**580,1 A**	Ik1fnmax:	**0,785 kA**
Ik max:	**1,65 kA**	Ip1fn:	**2,4 kA**
Ip:	**3,8 kA**	Ik1fnmin:	**0,584 kA**
Ik min:	**1,23 kA**	Zk min:	**139,8 mohm**
Ik2ftmax:	**1,46 kA**	Zk max:	**178,2 mohm**
Ip2ft:	**3,63 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**1,08 kA**	Zk2 max:	**0 mohm**
Ik2max:	**1,43 kA**	Zk1ftmin:	**296,5 mohm**
Ip2:	**3,56 kA**	Zk1ftmax:	**378,2 mohm**
Ik2min:	**1,07 kA**	Zk1fnmin:	**294,1 mohm**
Ik1ftmax:	**0,779 kA**	Zk1fnmx:	**375,4 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60N-C - 50A**		
Protection type:	**MT**		
Protection nominal current.:	**50 A**	Neutral thermic trip setting:	**50 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**500 A**
Release curve:	**C**	Breaking capacity BC:	**7,5 kA**
Thermic trip setting:	**50 A**	BC > Upstream short-circuit I max:	**7,5 >= 4,62 kA**
Magnetic trip setting:	**500 A**	Standard:	**Ics - EN 60947**
Magnetic rel. < I max. mag:	**500 < 580,1 A**		

Identification

Unit ref-mark:	**+CABINA GEN - BT.QSIC-E-QESIC-E C-03**
Denomination 1:	QIMM_INT
Denomination 2:	Q.E. Immissori Interrato
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**0 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**0 kW**	Input frequency:	**50 Hz**
Reactive power:	**0 kVAR**	Transferred upstream power:	**0 kVA**
Load rated current Ib:	**0 A**	Total power:	**11,1 kVA**
Power factor:	**0,9**	Available power:	**11,1 kVA**
Rated voltage:	**400 V**		

Cables

Formation:	**5G4**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FG16OM16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**EPR**	K^2S^2 phase conductor:	**$3,272*10^5 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$3,272*10^5 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$3,272*10^5 A^2s$**
Line length:	**20 m**	Partial voltage drop by Ib:	**0 %**
Iz withstand current:	**29,4 A**	Total voltage drop by Ib:	**0,18 %**
Neutral withstand current:	**29,4 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**0,7 (Number of circuits: 3)**	Cable temperature by Ib:	**30 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**47,8 °C**
Total derating coefficient:	**0,7**	Ib<=In<=Iz Coordination:	**0<=16<=29,4 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**4,62 kA**	Ip1ft:	**1,85 kA**
Ikv max downstream:	**1,56 kA**	Ik1ftmin:	**0,55 kA**
Imagmax (maximum magnetic):	**549,8 A**	Ik1fnmax:	**0,744 kA**
Ik max:	**1,56 kA**	Ip1fn:	**1,88 kA**
Ip:	**2,89 kA**	Ik1fnmin:	**0,554 kA**
Ik min:	**1,16 kA**	Zk min:	**147,6 mohm**
Ik2ftmax:	**1,38 kA**	Zk max:	**188,5 mohm**
Ip2ft:	**2,81 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**1,02 kA**	Zk2 max:	**0 mohm**
Ik2max:	**1,35 kA**	Zk1ftmin:	**312,6 mohm**
Ip2:	**2,76 kA**	Zk1ftmax:	**399 mohm**
Ik2min:	**1,01 kA**	Zk1fnmin:	**310,2 mohm**
Ik1ftmax:	**0,739 kA**	Zk1fnmx:	**396,4 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60N-C - 16A**		
Protection type:	**MT**		
Protection nominal current.:	**16 A**	Neutral thermic trip setting:	**16 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**160 A**
Release curve:	**C**	Breaking capacity BC:	**7,5 kA**
Thermic trip setting:	**16 A**	BC > Upstream short-circuit I max:	**7,5 >= 4,62 kA**
Magnetic trip setting:	**160 A**	Standard:	**Ics - EN 60947**
Magnetic rel. < I max. mag:	**160 < 549,8 A**		

Identification

Unit ref-mark:	**+CABINA GEN - BT.QSIC-E-QESIC-E C-04**
Denomination 1:	QIMM_PALCO
Denomination 2:	Q.E. Immissori Palco
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**0 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**0 kW**	Input frequency:	**50 Hz**
Reactive power:	**0 kVAR**	Transferred upstream power:	**0 kVA**
Load rated current Ib:	**0 A**	Total power:	**17,3 kVA**
Power factor:	**0,9**	Available power:	**17,3 kVA**
Rated voltage:	**400 V**		

Cables

Formation:	**5G6**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FG16OM16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**EPR**	K^2S^2 phase conductor:	**$7,362*10^5 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$7,362*10^5 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$7,362*10^5 A^2s$**
Line length:	**50 m**	Partial voltage drop by Ib:	**0 %**
Iz withstand current:	**37,8 A**	Total voltage drop by Ib:	**0,18 %**
Neutral withstand current:	**37,8 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**0,7 (Number of circuits: 3)**	Cable temperature by Ib:	**30 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**56,2 °C**
Total derating coefficient:	**0,7**	Ib<=In<=Iz Coordination:	**0<=25<=37,8 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**4,62 kA**	Ip1ft:	**2,07 kA**
Ikv max downstream:	**1,08 kA**	Ik1ftmin:	**0,387 kA**
Imagmax (maximum magnetic):	**386,6 A**	Ik1fnmax:	**0,523 kA**
Ik max:	**1,08 kA**	Ip1fn:	**2,12 kA**
Ip:	**3,27 kA**	Ik1fnmin:	**0,388 kA**
Ik min:	**0,804 kA**	Zk min:	**213,5 mohm**
Ik2ftmax:	**0,955 kA**	Zk max:	**272,7 mohm**
Ip2ft:	**3,17 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**0,706 kA**	Zk2 max:	**0 mohm**
Ik2max:	**0,937 kA**	Zk1ftmin:	**444,2 mohm**
Ip2:	**3,12 kA**	Zk1ftmax:	**567,5 mohm**
Ik2min:	**0,697 kA**	Zk1fnmin:	**441,9 mohm**
Ik1ftmax:	**0,52 kA**	Zk1fnmx:	**564,9 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60N-C - 25A**		
Protection type:	**MT**		
Protection nominal current.:	**25 A**	Neutral thermic trip setting:	**25 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**250 A**
Release curve:	**C**	Breaking capacity BC:	**7,5 kA**
Thermic trip setting:	**25 A**	BC > Upstream short-circuit I max:	**7,5 >= 4,62 kA**
Magnetic trip setting:	**250 A**	Standard:	**Ics - EN 60947**
Magnetic rel. < I max. mag:	**250 < 386,6 A**		

Identification

Unit ref-mark:	**+CABINA GEN - BT.QSIC-E-QESIC-E C-05**
Denomination 1:	QCU1
Denomination 2:	Q.E. Apertura Cupolini 1
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**3 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**3 kW**	Input frequency:	**50 Hz**
Reactive power:	**1,45 kVAR**	Transferred upstream power:	**3,33 kVA**
Load rated current Ib:	**4,81 A**	Total power:	**27,7 kVA**
Power factor:	**0,9**	Available power:	**24,4 kVA**
Rated voltage:	**400 V**		

Cables

Formation:	**5G10**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FG16OM16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**EPR**	K^2S^2 phase conductor:	**$2,045*10^6 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$2,045*10^6 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$2,045*10^6 A^2s$**
Line length:	**100 m**	Partial voltage drop by Ib:	**0,465 %**
Iz withstand current:	**52,5 A**	Total voltage drop by Ib:	**0,645 %**
Neutral withstand current:	**52,5 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**0,7 (Number of circuits: 3)**	Cable temperature by Ib:	**30,5 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**64,8 °C**
Total derating coefficient:	**0,7**	Ib<=In<=Iz Coordination:	**4,81<=40<=52,5 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**4,62 kA**	Ip1ft:	**2,2 kA**
Ikv max downstream:	**0,963 kA**	Ik1ftmin:	**0,346 kA**
Imagmax (maximum magnetic):	**345,6 A**	Ik1fnmax:	**0,467 kA**
Ik max:	**0,963 kA**	Ip1fn:	**2,24 kA**
Ip:	**3,76 kA**	Ik1fnmin:	**0,347 kA**
Ik min:	**0,716 kA**	Zk min:	**239,8 mohm**
Ik2ftmax:	**0,851 kA**	Zk max:	**306,4 mohm**
Ip2ft:	**3,69 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**0,629 kA**	Zk2 max:	**0 mohm**
Ik2max:	**0,834 kA**	Zk1ftmin:	**496,8 mohm**
Ip2:	**3,65 kA**	Zk1ftmax:	**634,8 mohm**
Ik2min:	**0,62 kA**	Zk1fnmin:	**494,5 mohm**
Ik1ftmax:	**0,465 kA**	Zk1fnmx:	**632,2 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60N-C - 40A**		
Protection type:	**MT**		
Protection nominal current.:	**40 A**	Neutral thermic trip setting:	**40 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**400 A**
Release curve:	**C**	Breaking capacity BC:	**7,5 kA**
Thermic trip setting:	**40 A**	BC > Upstream short-circuit I max:	**7,5 >= 4,62 kA**
Magnetic trip setting:	**400 A**	Standard:	**Ics - EN 60947**
Magnetic rel. < I max. mag:	**Indirect contacts prot**		

Identification

Unit ref-mark:	**+CABINA GEN - BT.QSIC-E-QESIC-E C-06**
Denomination 1:	Alimentazione
Denomination 2:	Sipario Sicurezza
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**0 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**0 kW**	Input frequency:	**50 Hz**
Reactive power:	**0 kVAR**	Transferred upstream power:	**0 kVA**
Load rated current Ib:	**0 A**	Total power:	**22,2 kVA**
Power factor:	**0,9**	Available power:	**22,2 kVA**
Rated voltage:	**400 V**		

Cables

Formation:	**5G10**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FG16OM16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**EPR**	K^2S^2 phase conductor:	**$2,045*10^6 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$2,045*10^6 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$2,045*10^6 A^2s$**
Line length:	**100 m**	Partial voltage drop by Ib:	**0 %**
Iz withstand current:	**52,5 A**	Total voltage drop by Ib:	**0,18 %**
Neutral withstand current:	**52,5 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**0,7 (Number of circuits: 3)**	Cable temperature by Ib:	**30 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**52,3 °C**
Total derating coefficient:	**0,7**	Ib<=In<=Iz Coordination:	**0<=32<=52,5 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**4,62 kA**	Ip1ft:	**2,2 kA**
Ikv max downstream:	**0,963 kA**	Ik1ftmin:	**0,346 kA**
Imagmax (maximum magnetic):	**345,6 A**	Ik1fnmax:	**0,467 kA**
Ik max:	**0,963 kA**	Ip1fn:	**2,24 kA**
Ip:	**3,76 kA**	Ik1fnmin:	**0,347 kA**
Ik min:	**0,716 kA**	Zk min:	**239,8 mohm**
Ik2ftmax:	**0,851 kA**	Zk max:	**306,4 mohm**
Ip2ft:	**3,69 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**0,629 kA**	Zk2 max:	**0 mohm**
Ik2max:	**0,834 kA**	Zk1ftmin:	**496,8 mohm**
Ip2:	**3,65 kA**	Zk1ftmax:	**634,8 mohm**
Ik2min:	**0,62 kA**	Zk1fnmin:	**494,5 mohm**
Ik1ftmax:	**0,465 kA**	Zk1fnmx:	**632,2 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60N-C - 32A**		
Protection type:	**MT**		
Protection nominal current.:	**32 A**	Neutral thermic trip setting:	**32 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**320 A**
Release curve:	**C**	Breaking capacity BC:	**7,5 kA**
Thermic trip setting:	**32 A**	BC > Upstream short-circuit I max:	**7,5 >= 4,62 kA**
Magnetic trip setting:	**320 A**	Standard:	**Ics - EN 60947**
Magnetic rel. < I max. mag:	**320 < 345,6 A**		

Identification

Unit ref-mark:	**+CABINA GEN - BT.QSIC-E-QESIC-E C-07**
Denomination 1:	Protezione trafo 24V
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution preferential**		
Rated power:	**0,207 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**L2-N**
Power dimensioning:	**0,207 kW**	Input frequency:	**50 Hz**
Reactive power:	**0,154 kVAR**	Transferred upstream power:	**0,258 kVA**
Load rated current Ib:	**1,12 A**	Total power:	**2,31 kVA**
Power factor:	**0,802**	Available power:	**2,05 kVA**
Rated voltage:	**231 V**		

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**2,02 kA**	Ip1fn:	**1,67 kA**
Ikv max downstream:	**2,03 kA**	Ik1fnmin:	**1,51 kA**
Imagmax (maximum magnetic):	**1486 A**	Zk1ftmin:	**116,6 mohm**
Ik1ftmax:	**1,98 kA**	Zk1ftmax:	**147,7 mohm**
Ip1ft:	**1,64 kA**	Zk1fnmin:	**113,9 mohm**
Ik1ftmin:	**1,49 kA**	Zk1fnmx:	**144,7 mohm**
Ik1fnmax:	**2,02 kA**		

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60N-C - 10A**		
Protection type:	**MT**		
Protection nominal current.:	**10 A**	Magnetic rel. < I max. mag:	**100 < 1486 A**
Number of poles:	**2**	Breaking capacity BC:	**20 kA**
Release curve:	**C**	BC > Upstream short-circuit I max:	**20 >= 2,02 kA**
Thermic trip setting:	**10 A**	Standard:	**Icu - EN 60947**
Magnetic trip setting:	**100 A**		

Identification

Unit ref-mark:	**+CABINA GEN - BT.QSIC-E-QESIC-E C-10**
Denomination 1:	Riserva
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**0 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**0 kW**	Input frequency:	**50 Hz**
Reactive power:	**0 kVAR**	Transferred upstream power:	**0 kVA**
Load rated current Ib:	**0 A**	Total power:	**43,6 kVA**
Power factor:	**0,9**	Available power:	**43,6 kVA**
Rated voltage:	**400 V**		

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**4,62 kA**	Ip1ft:	**2,38 kA**
Ikv max downstream:	**4,62 kA**	Ik1ftmin:	**1,49 kA**
Imagmax (maximum magnetic):	**1486 A**	Ik1fnmax:	**2,03 kA**
Ik max:	**4,62 kA**	Ip1fn:	**2,4 kA**
Ip:	**3,8 kA**	Ik1fnmin:	**1,52 kA**
Ik min:	**3,48 kA**	Zk min:	**50 mohm**
Ik2ftmax:	**4,1 kA**	Zk max:	**63,1 mohm**
Ip2ft:	**3,63 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**3,02 kA**	Zk2 max:	**0 mohm**
Ik2max:	**4 kA**	Zk1ftmin:	**116,6 mohm**
Ip2:	**3,56 kA**	Zk1ftmax:	**147,6 mohm**
Ik2min:	**3,01 kA**	Zk1fnmin:	**113,8 mohm**
Ik1ftmax:	**1,98 kA**	Zk1fnmx:	**144,7 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60N-C - 63A + Vigi iC60 A 0,03 A**		
Protection type:	**MT+D**		
Protection nominal current.:	**63 A**	Neutral thermic trip setting:	**63 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**630 A**
Release curve:	**C**	Residual trip setting:	**0,03 A**
Operational class:	**A**	Breaking capacity BC:	**10 kA**
Thermic trip setting:	**63 A**	BC > Upstream short-circuit I max:	**10 >= 4,62 kA**
Magnetic trip setting:	**630 A**	Standard:	**Icu - EN 60947**
Magnetic rel. < I max. mag:	**630 < 1486 A**		

Identification

Unit ref-mark:	**+CABINA GEN - BT.QSIC-E-QESIC-E C-11**
Denomination 1:	Riserva
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**0 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**0 kW**	Input frequency:	**50 Hz**
Reactive power:	**0 kVAR**	Transferred upstream power:	**0 kVA**
Load rated current Ib:	**0 A**	Total power:	**22,2 kVA**
Power factor:	**0,9**	Available power:	**22,2 kVA**
Rated voltage:	**400 V**		

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**4,62 kA**	Ip1ft:	**2,2 kA**
Ikv max downstream:	**4,62 kA**	Ik1ftmin:	**1,49 kA**
Imagmax (maximum magnetic):	**1486 A**	Ik1fnmax:	**2,03 kA**
Ik max:	**4,62 kA**	Ip1fn:	**2,24 kA**
Ip:	**3,76 kA**	Ik1fnmin:	**1,52 kA**
Ik min:	**3,48 kA**	Zk min:	**50 mohm**
Ik2ftmax:	**4,1 kA**	Zk max:	**63,1 mohm**
Ip2ft:	**3,69 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**3,02 kA**	Zk2 max:	**0 mohm**
Ik2max:	**4 kA**	Zk1ftmin:	**116,6 mohm**
Ip2:	**3,65 kA**	Zk1ftmax:	**147,6 mohm**
Ik2min:	**3,01 kA**	Zk1fnmin:	**113,8 mohm**
Ik1ftmax:	**1,98 kA**	Zk1fnmx:	**144,7 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60N-C - 32A + Vigi iC60 A 0,03 A**		
Protection type:	**MT+D**		
Protection nominal current.:	**32 A**	Neutral thermic trip setting:	**32 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**320 A**
Release curve:	**C**	Residual trip setting:	**0,03 A**
Operational class:	**A**	Breaking capacity BC:	**10 kA**
Thermic trip setting:	**32 A**	BC > Upstream short-circuit I max:	**10 >= 4,62 kA**
Magnetic trip setting:	**320 A**	Standard:	**Icu - EN 60947**
Magnetic rel. < I max. mag:	**320 < 1486 A**		

Identification

Unit ref-mark:	**+CABINA GEN - BT.QSIC-E-AUX TR**
Denomination 1:	Trasformatore
Denomination 2:	230/24Vac
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution unit with transformer preferential**		
Rated power:	**0,207 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**L2-N**
Power dimensioning:	**0,207 kW**	Input frequency:	**50 Hz**
Reactive power:	**0,154 kVAR**	Transferred upstream power:	**0,258 kVA**
Load rated current Ib:	**1,12 A**	Total power:	**0,767 kVA**
Power factor:	**0,802**	Available power:	**0,509 kVA**
Rated voltage:	**231 V**		

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**2,02 kA**	Ip1fn:	**1,67 kA**
Ikv max downstream:	**1,47 kA**	Ik1fnmin:	**1,28 kA**
Imagmax (maximum magnetic):	**1281 A**	Zk1fnmin:	**16,3 mohm**
Ik1fnmax:	**1,47 kA**	Zk1fnmx:	**17,8 mohm**

Transformer

Transformer type:	**Normal**	Transformer short circuit losses. Pkr:	**60 W**
Winding connections:	**Monofase**	Transformer short-circuit voltage	**6 %**
Ecocompatible design:	UE N.548/2014 (dal 07/2021)	Transformer no-load losses Pv0:	**7,2 W**
Transformer rated power:	**2 kVA**	Transformer no-load currents Iv0:	**2,9 %**
Primary voltage:	**231 V**	Ilr/In ratio:	**10,5**
No-load secondary voltage:	**24 V**	Insulation type:	**In resin**
Windings ratio N1/N2:	**9,625**		

Identification

Unit ref-mark:	**+CABINA GEN - BT.QSIC-E-QESIC-E C-08**
Denomination 1:	AUX 24V
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic preferential terminal**		
Rated power:	**0,1 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**L2-N**
Power dimensioning:	**0,1 kW**	Input frequency:	**50 Hz**
Reactive power:	**0,048 kVAR**	Transferred upstream power:	**0,111 kVA**
Load rated current Ib:	**4,63 A**	Total power:	**0,384 kVA**
Power factor:	**0,9**	Available power:	**0,273 kVA**
Rated voltage:	**24 V**	Number of loads per unit:	**1**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**1,47 kA**	Ip1fn:	**2,45 kA**
Ikv max downstream:	**1,47 kA**	Ik1fnmin:	**1,28 kA**
Imagmax (maximum magnetic):	**1281 A**	Zk1fnmin:	**16,3 mohm**
Ik1fnmax:	**1,47 kA**	Zk1fnmx:	**17,8 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60N-C - 16A**		
Protection type:	**MT**		
Protection nominal current.:	**16 A**	Magnetic rel. < I max. mag:	**160 < 1281 A**
Number of poles:	**2**	Breaking capacity BC:	**6 kA**
Release curve:	**C**	BC > Upstream short-circuit I max:	**6 >= 1,47 kA**
Thermic trip setting:	**16 A**	Standard:	**Icn - EN 60898**
Magnetic trip setting:	**160 A**		

Identification

Unit ref-mark:	**+CABINA GEN - BT.QSIC-E-QESIC-E C-09**
Denomination 1:	AUX 24V
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic preferential terminal**		
Rated power:	**0,1 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**L2-N**
Power dimensioning:	**0,1 kW**	Input frequency:	**50 Hz**
Reactive power:	**0,048 kVAR**	Transferred upstream power:	**0,111 kVA**
Load rated current Ib:	**4,63 A**	Total power:	**0,384 kVA**
Power factor:	**0,9**	Available power:	**0,273 kVA**
Rated voltage:	**24 V**	Number of loads per unit:	**1**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**1,47 kA**	Ip1fn:	**2,45 kA**
Ikv max downstream:	**1,47 kA**	Ik1fnmin:	**1,28 kA**
Imagmax (maximum magnetic):	**1281 A**	Zk1fnmin:	**16,3 mohm**
Ik1fnmax:	**1,47 kA**	Zk1fnmx:	**17,8 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60N-C - 16A**		
Protection type:	**MT**		
Protection nominal current.:	**16 A**	Magnetic rel. < I max. mag:	**160 < 1281 A**
Number of poles:	**2**	Breaking capacity BC:	**6 kA**
Release curve:	**C**	BC > Upstream short-circuit I max:	**6 >= 1,47 kA**
Thermic trip setting:	**16 A**	Standard:	**Icn - EN 60898**
Magnetic trip setting:	**160 A**		

Identification

Unit ref-mark:	**+CABINA GEN - BT.QESIC-S1-QESIC-S1 C-01**
Denomination 1:	QECDZ3
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**0,175 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**0,175 kW**	Input frequency:	**50 Hz**
Reactive power:	**0,085 kVAR**	Transferred upstream power:	**0,194 kVA**
Load rated current Ib:	**0,505 A**	Total power:	**22,2 kVA**
Power factor:	**0,9**	Available power:	**22 kVA**
Rated voltage:	**400 V**		

Cables

Formation:	**5G6**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FG16OM16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**EPR**	K^2S^2 phase conductor:	**$7,362*10^5 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$7,362*10^5 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$7,362*10^5 A^2s$**
Line length:	**30 m**	Partial voltage drop by Ib:	**0,035 %**
Iz withstand current:	**37,8 A**	Total voltage drop by Ib:	**0,322 %**
Neutral withstand current:	**37,8 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**0,7 (Number of circuits: 3)**	Cable temperature by Ib:	**30 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**73 °C**
Total derating coefficient:	**0,7**	Ib<=In<=Iz Coordination:	**0,505<=32<=37,8 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**14,1 kA**	Ip1ft:	**4,23 kA**
Ikv max downstream:	**2,06 kA**	Ik1ftmin:	**0,725 kA**
Imagmax (maximum magnetic):	**725,3 A**	Ik1fnmax:	**0,982 kA**
Ik max:	**2,06 kA**	Ip1fn:	**4,41 kA**
Ip:	**5,22 kA**	Ik1fnmin:	**0,73 kA**
Ik min:	**1,53 kA**	Zk min:	**112,3 mohm**
Ik2ftmax:	**1,82 kA**	Zk max:	**143,3 mohm**
Ip2ft:	**4,98 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**1,34 kA**	Zk2 max:	**0 mohm**
Ik2max:	**1,78 kA**	Zk1ftmin:	**237,1 mohm**
Ip2:	**4,88 kA**	Zk1ftmax:	**302,5 mohm**
Ik2min:	**1,33 kA**	Zk1fnmin:	**235,2 mohm**
Ik1ftmax:	**0,974 kA**	Zk1fnmx:	**300,5 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60H-D - 32A**		
Protection type:	**MT**		
Protection nominal current.:	**32 A**	Neutral thermic trip setting:	**32 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**448 A**
Release curve:	**D**	Breaking capacity BC:	**15 kA**
Thermic trip setting:	**32 A**	BC > Upstream short-circuit I max:	**15 >= 14,1 kA**
Magnetic trip setting:	**448 A**	Standard:	**Icu - EN 60947**
Magnetic rel. < I max. mag:	**448 < 725,3 A**		

Identification

Unit ref-mark:	**+CABINA GEN - BT.QESIC-S1-QESIC-S1 C-13**
Denomination 1:	QSCAB
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**0,4 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**0,4 kW**	Input frequency:	**50 Hz**
Reactive power:	**0,194 kVAR**	Transferred upstream power:	**0,444 kVA**
Load rated current Ib:	**0,962 A**	Total power:	**22,2 kVA**
Power factor:	**0,9**	Available power:	**21,7 kVA**
Rated voltage:	**400 V**		

Cables

Formation:	**5G16**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FG16OM16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**EPR**	K^2S^2 phase conductor:	**$5,235*10^6 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$5,235*10^6 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$5,235*10^6 A^2s$**
Line length:	**10 m**	Partial voltage drop by Ib:	**0,009 %**
Iz withstand current:	**70 A**	Total voltage drop by Ib:	**0,296 %**
Neutral withstand current:	**70 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**0,7 (Number of circuits: 3)**	Cable temperature by Ib:	**30 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**42,5 °C**
Total derating coefficient:	**0,7**	Ib<=In<=Iz Coordination:	**0,962<=32<=70 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**14,1 kA**	Ip1ft:	**4,23 kA**
Ikv max downstream:	**8,48 kA**	Ik1ftmin:	**2,67 kA**
Imagmax (maximum magnetic):	**2666 A**	Ik1fnmax:	**3,66 kA**
Ik max:	**8,48 kA**	Ip1fn:	**4,41 kA**
Ip:	**5,22 kA**	Ik1fnmin:	**2,75 kA**
Ik min:	**6,51 kA**	Zk min:	**27,2 mohm**
Ik2ftmax:	**7,57 kA**	Zk max:	**33,7 mohm**
Ip2ft:	**4,98 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**5,6 kA**	Zk2 max:	**0 mohm**
Ik2max:	**7,34 kA**	Zk1ftmin:	**65,8 mohm**
Ip2:	**4,88 kA**	Zk1ftmax:	**82,3 mohm**
Ik2min:	**5,64 kA**	Zk1fnmin:	**63 mohm**
Ik1ftmax:	**3,51 kA**	Zk1fnmx:	**79,6 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60H-D - 32A**		
Protection type:	**MT**		
Protection nominal current.:	**32 A**	Neutral thermic trip setting:	**32 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**448 A**
Release curve:	**D**	Breaking capacity BC:	**15 kA**
Thermic trip setting:	**32 A**	BC > Upstream short-circuit I max:	**15 >= 14,1 kA**
Magnetic trip setting:	**448 A**	Standard:	**Icu - EN 60947**
Magnetic rel. < I max. mag:	**448 < 2666 A**		

Identification

Unit ref-mark:	**+CABINA GEN - BT.QESIC-S1-QESIC-S1 C-04**
Denomination 1:	QESC1
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**0,28 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**0,28 kW**	Input frequency:	**50 Hz**
Reactive power:	**0,136 kVAR**	Transferred upstream power:	**0,311 kVA**
Load rated current Ib:	**1,01 A**	Total power:	**22,2 kVA**
Power factor:	**0,9**	Available power:	**21,9 kVA**
Rated voltage:	**400 V**		

Cables

Formation:	**5G16**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FG16OM16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**EPR**	K^2S^2 phase conductor:	**$5,235*10^6 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$5,235*10^6 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$5,235*10^6 A^2s$**
Line length:	**30 m**	Partial voltage drop by Ib:	**0,032 %**
Iz withstand current:	**70 A**	Total voltage drop by Ib:	**0,319 %**
Neutral withstand current:	**70 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**0,7 (Number of circuits: 3)**	Cable temperature by Ib:	**30 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**42,5 °C**
Total derating coefficient:	**0,7**	Ib<=In<=Iz Coordination:	**1,01<=32<=70 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**14,1 kA**	Ip1ft:	**4,23 kA**
Ikv max downstream:	**4,57 kA**	Ik1ftmin:	**1,53 kA**
Imagmax (maximum magnetic):	**1532 A**	Ik1fnmax:	**2,08 kA**
Ik max:	**4,57 kA**	Ip1fn:	**4,41 kA**
Ip:	**5,22 kA**	Ik1fnmin:	**1,56 kA**
Ik min:	**3,44 kA**	Zk min:	**50,6 mohm**
Ik2ftmax:	**4,05 kA**	Zk max:	**63,9 mohm**
Ip2ft:	**4,98 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**2,99 kA**	Zk2 max:	**0 mohm**
Ik2max:	**3,96 kA**	Zk1ftmin:	**113,1 mohm**
Ip2:	**4,88 kA**	Zk1ftmax:	**143,2 mohm**
Ik2min:	**2,98 kA**	Zk1fnmin:	**110,8 mohm**
Ik1ftmax:	**2,04 kA**	Zk1fnmx:	**140,9 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60H-D - 32A**		
Protection type:	**MT**		
Protection nominal current.:	**32 A**	Neutral thermic trip setting:	**32 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**448 A**
Release curve:	**D**	Breaking capacity BC:	**15 kA**
Thermic trip setting:	**32 A**	BC > Upstream short-circuit I max:	**15 >= 14,1 kA**
Magnetic trip setting:	**448 A**	Standard:	**Icu - EN 60947**
Magnetic rel. < I max. mag:	**448 < 1532 A**		

Identification

Unit ref-mark:	**+CABINA GEN - BT.QESIC-S1-QESIC-S1 C-05**
Denomination 1:	QESC3
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**0,21 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**0,21 kW**	Input frequency:	**50 Hz**
Reactive power:	**0,102 kVAR**	Transferred upstream power:	**0,233 kVA**
Load rated current Ib:	**0,673 A**	Total power:	**22,2 kVA**
Power factor:	**0,9**	Available power:	**21,9 kVA**
Rated voltage:	**400 V**		

Cables

Formation:	**5G16**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FG16OM16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**EPR**	K^2S^2 phase conductor:	**$5,235*10^6 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$5,235*10^6 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$5,235*10^6 A^2s$**
Line length:	**30 m**	Partial voltage drop by Ib:	**0,019 %**
Iz withstand current:	**70 A**	Total voltage drop by Ib:	**0,306 %**
Neutral withstand current:	**70 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**0,7 (Number of circuits: 3)**	Cable temperature by Ib:	**30 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**42,5 °C**
Total derating coefficient:	**0,7**	Ib<=In<=Iz Coordination:	**0,673<=32<=70 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**14,1 kA**	Ip1ft:	**4,23 kA**
Ikv max downstream:	**4,57 kA**	Ik1ftmin:	**1,53 kA**
Imagmax (maximum magnetic):	**1532 A**	Ik1fnmax:	**2,08 kA**
Ik max:	**4,57 kA**	Ip1fn:	**4,41 kA**
Ip:	**5,22 kA**	Ik1fnmin:	**1,56 kA**
Ik min:	**3,44 kA**	Zk min:	**50,6 mohm**
Ik2ftmax:	**4,05 kA**	Zk max:	**63,9 mohm**
Ip2ft:	**4,98 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**2,99 kA**	Zk2 max:	**0 mohm**
Ik2max:	**3,96 kA**	Zk1ftmin:	**113,1 mohm**
Ip2:	**4,88 kA**	Zk1ftmax:	**143,2 mohm**
Ik2min:	**2,98 kA**	Zk1fnmin:	**110,8 mohm**
Ik1ftmax:	**2,04 kA**	Zk1fnmx:	**140,9 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60H-D - 32A**		
Protection type:	**MT**		
Protection nominal current.:	**32 A**	Neutral thermic trip setting:	**32 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**448 A**
Release curve:	**D**	Breaking capacity BC:	**15 kA**
Thermic trip setting:	**32 A**	BC > Upstream short-circuit I max:	**15 >= 14,1 kA**
Magnetic trip setting:	**448 A**	Standard:	**Icu - EN 60947**
Magnetic rel. < I max. mag:	**448 < 1532 A**		

Identification

Unit ref-mark:	**+CABINA GEN - BT.QESIC-S1-QESIC-S1 C-06**
Denomination 1:	QECAM1
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**0,65 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**0,65 kW**	Input frequency:	**50 Hz**
Reactive power:	**0,315 kVAR**	Transferred upstream power:	**0,722 kVA**
Load rated current Ib:	**2,08 A**	Total power:	**22,2 kVA**
Power factor:	**0,9**	Available power:	**21,4 kVA**
Rated voltage:	**400 V**		

Cables

Formation:	**5G16**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FG16OM16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**EPR**	K^2S^2 phase conductor:	**$5,235*10^6 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$5,235*10^6 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$5,235*10^6 A^2s$**
Line length:	**30 m**	Partial voltage drop by Ib:	**0,072 %**
Iz withstand current:	**70 A**	Total voltage drop by Ib:	**0,359 %**
Neutral withstand current:	**70 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**0,7 (Number of circuits: 3)**	Cable temperature by Ib:	**30,1 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**42,5 °C**
Total derating coefficient:	**0,7**	Ib<=In<=Iz Coordination:	**2,08<=32<=70 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**14,1 kA**	Ip1ft:	**4,23 kA**
Ikv max downstream:	**4,57 kA**	Ik1ftmin:	**1,53 kA**
Imagmax (maximum magnetic):	**1532 A**	Ik1fnmax:	**2,08 kA**
Ik max:	**4,57 kA**	Ip1fn:	**4,41 kA**
Ip:	**5,22 kA**	Ik1fnmin:	**1,56 kA**
Ik min:	**3,44 kA**	Zk min:	**50,6 mohm**
Ik2ftmax:	**4,05 kA**	Zk max:	**63,9 mohm**
Ip2ft:	**4,98 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**2,99 kA**	Zk2 max:	**0 mohm**
Ik2max:	**3,96 kA**	Zk1ftmin:	**113,1 mohm**
Ip2:	**4,88 kA**	Zk1ftmax:	**143,2 mohm**
Ik2min:	**2,98 kA**	Zk1fnmin:	**110,8 mohm**
Ik1ftmax:	**2,04 kA**	Zk1fnmx:	**140,9 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60H-D - 32A**		
Protection type:	**MT**		
Protection nominal current.:	**32 A**	Neutral thermic trip setting:	**32 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**448 A**
Release curve:	**D**	Breaking capacity BC:	**15 kA**
Thermic trip setting:	**32 A**	BC > Upstream short-circuit I max:	**15 >= 14,1 kA**
Magnetic trip setting:	**448 A**	Standard:	**Icu - EN 60947**
Magnetic rel. < I max. mag:	**448 < 1532 A**		

Identification

Unit ref-mark:	**+CABINA GEN - BT.QESIC-S1-QESIC-S1 C-07**
Denomination 1:	QEMAG
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**1,2 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**1,2 kW**	Input frequency:	**50 Hz**
Reactive power:	**0,581 kVAR**	Transferred upstream power:	**1,33 kVA**
Load rated current Ib:	**4,33 A**	Total power:	**22,2 kVA**
Power factor:	**0,9**	Available power:	**20,8 kVA**
Rated voltage:	**400 V**		

Cables

Formation:	**5G16**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FG16OM16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**EPR**	K^2S^2 phase conductor:	**$5,235*10^6 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$5,235*10^6 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$5,235*10^6 A^2s$**
Line length:	**30 m**	Partial voltage drop by Ib:	**0,156 %**
Iz withstand current:	**70 A**	Total voltage drop by Ib:	**0,443 %**
Neutral withstand current:	**70 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**0,7 (Number of circuits: 3)**	Cable temperature by Ib:	**30,2 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**42,5 °C**
Total derating coefficient:	**0,7**	Ib<=In<=Iz Coordination:	**4,33<=32<=70 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**14,1 kA**	Ip1ft:	**4,23 kA**
Ikv max downstream:	**4,57 kA**	Ik1ftmin:	**1,53 kA**
Imagmax (maximum magnetic):	**1532 A**	Ik1fnmax:	**2,08 kA**
Ik max:	**4,57 kA**	Ip1fn:	**4,41 kA**
Ip:	**5,22 kA**	Ik1fnmin:	**1,56 kA**
Ik min:	**3,44 kA**	Zk min:	**50,6 mohm**
Ik2ftmax:	**4,05 kA**	Zk max:	**63,9 mohm**
Ip2ft:	**4,98 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**2,99 kA**	Zk2 max:	**0 mohm**
Ik2max:	**3,96 kA**	Zk1ftmin:	**113,1 mohm**
Ip2:	**4,88 kA**	Zk1ftmax:	**143,2 mohm**
Ik2min:	**2,98 kA**	Zk1fnmin:	**110,8 mohm**
Ik1ftmax:	**2,04 kA**	Zk1fnmx:	**140,9 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60H-D - 32A**		
Protection type:	**MT**		
Protection nominal current.:	**32 A**	Neutral thermic trip setting:	**32 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**448 A**
Release curve:	**D**	Breaking capacity BC:	**15 kA**
Thermic trip setting:	**32 A**	BC > Upstream short-circuit I max:	**15 >= 14,1 kA**
Magnetic trip setting:	**448 A**	Standard:	**Icu - EN 60947**
Magnetic rel. < I max. mag:	**448 < 1532 A**		

Identification

Unit ref-mark:	**+CABINA GEN - BT.QESIC-S1-QESIC-S1 C-08**
Denomination 1:	QEFO
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**0,49 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**0,49 kW**	Input frequency:	**50 Hz**
Reactive power:	**0,237 kVAR**	Transferred upstream power:	**0,544 kVA**
Load rated current Ib:	**1,15 A**	Total power:	**22,2 kVA**
Power factor:	**0,9**	Available power:	**21,6 kVA**
Rated voltage:	**400 V**		

Cables

Formation:	**5G16**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FG16OM16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**EPR**	K^2S^2 phase conductor:	**$5,235*10^6 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$5,235*10^6 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$5,235*10^6 A^2s$**
Line length:	**30 m**	Partial voltage drop by Ib:	**0,033 %**
Iz withstand current:	**70 A**	Total voltage drop by Ib:	**0,294 %**
Neutral withstand current:	**70 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**0,7 (Number of circuits: 3)**	Cable temperature by Ib:	**30 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**42,5 °C**
Total derating coefficient:	**0,7**	Ib<=In<=Iz Coordination:	**1,15<=32<=70 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**14,1 kA**	Ip1ft:	**4,23 kA**
Ikv max downstream:	**4,57 kA**	Ik1ftmin:	**1,53 kA**
Imagmax (maximum magnetic):	**1532 A**	Ik1fnmax:	**2,08 kA**
Ik max:	**4,57 kA**	Ip1fn:	**4,41 kA**
Ip:	**5,22 kA**	Ik1fnmin:	**1,56 kA**
Ik min:	**3,44 kA**	Zk min:	**50,6 mohm**
Ik2ftmax:	**4,05 kA**	Zk max:	**63,9 mohm**
Ip2ft:	**4,98 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**2,99 kA**	Zk2 max:	**0 mohm**
Ik2max:	**3,96 kA**	Zk1ftmin:	**113,1 mohm**
Ip2:	**4,88 kA**	Zk1ftmax:	**143,2 mohm**
Ik2min:	**2,98 kA**	Zk1fnmin:	**110,8 mohm**
Ik1ftmax:	**2,04 kA**	Zk1fnmx:	**140,9 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60H-D - 32A**		
Protection type:	**MT**		
Protection nominal current.:	**32 A**	Neutral thermic trip setting:	**32 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**448 A**
Release curve:	**D**	Breaking capacity BC:	**15 kA**
Thermic trip setting:	**32 A**	BC > Upstream short-circuit I max:	**15 >= 14,1 kA**
Magnetic trip setting:	**448 A**	Standard:	**Icu - EN 60947**
Magnetic rel. < I max. mag:	**448 < 1532 A**		

Identification

Unit ref-mark:	**+CABINA GEN - BT.QESIC-S1-QESIC-S1 C-09**
Denomination 1:	QECS
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**0,15 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**0,15 kW**	Input frequency:	**50 Hz**
Reactive power:	**0,073 kVAR**	Transferred upstream power:	**0,167 kVA**
Load rated current Ib:	**0,401 A**	Total power:	**22,2 kVA**
Power factor:	**0,9**	Available power:	**22 kVA**
Rated voltage:	**400 V**		

Cables

Formation:	**5G16**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FG16OM16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**EPR**	K^2S^2 phase conductor:	**$5,235*10^6 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$5,235*10^6 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$5,235*10^6 A^2s$**
Line length:	**30 m**	Partial voltage drop by Ib:	**0,012 %**
Iz withstand current:	**70 A**	Total voltage drop by Ib:	**0,286 %**
Neutral withstand current:	**70 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**0,7 (Number of circuits: 3)**	Cable temperature by Ib:	**30 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**42,5 °C**
Total derating coefficient:	**0,7**	Ib<=In<=Iz Coordination:	**0,401<=32<=70 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**14,1 kA**	Ip1ft:	**4,23 kA**
Ikv max downstream:	**4,57 kA**	Ik1ftmin:	**1,53 kA**
Imagmax (maximum magnetic):	**1532 A**	Ik1fnmax:	**2,08 kA**
Ik max:	**4,57 kA**	Ip1fn:	**4,41 kA**
Ip:	**5,22 kA**	Ik1fnmin:	**1,56 kA**
Ik min:	**3,44 kA**	Zk min:	**50,6 mohm**
Ik2ftmax:	**4,05 kA**	Zk max:	**63,9 mohm**
Ip2ft:	**4,98 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**2,99 kA**	Zk2 max:	**0 mohm**
Ik2max:	**3,96 kA**	Zk1ftmin:	**113,1 mohm**
Ip2:	**4,88 kA**	Zk1ftmax:	**143,2 mohm**
Ik2min:	**2,98 kA**	Zk1fnmin:	**110,8 mohm**
Ik1ftmax:	**2,04 kA**	Zk1fnmx:	**140,9 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60H-D - 32A**		
Protection type:	**MT**		
Protection nominal current.:	**32 A**	Neutral thermic trip setting:	**32 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**448 A**
Release curve:	**D**	Breaking capacity BC:	**15 kA**
Thermic trip setting:	**32 A**	BC > Upstream short-circuit I max:	**15 >= 14,1 kA**
Magnetic trip setting:	**448 A**	Standard:	**Icu - EN 60947**
Magnetic rel. < I max. mag:	**448 < 1532 A**		

Identification

Unit ref-mark:	**+CABINA GEN - BT.QESIC-S1-QESIC-S1 C-10**
Denomination 1:	QESD
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**0,35 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**0,35 kW**	Input frequency:	**50 Hz**
Reactive power:	**0,169 kVAR**	Transferred upstream power:	**0,389 kVA**
Load rated current Ib:	**1,18 A**	Total power:	**22,2 kVA**
Power factor:	**0,9**	Available power:	**21,8 kVA**
Rated voltage:	**400 V**		

Cables

Formation:	**5G16**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FG16OM16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**EPR**	K^2S^2 phase conductor:	**$5,235*10^6 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$5,235*10^6 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$5,235*10^6 A^2s$**
Line length:	**30 m**	Partial voltage drop by Ib:	**0,042 %**
Iz withstand current:	**70 A**	Total voltage drop by Ib:	**0,329 %**
Neutral withstand current:	**70 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**0,7 (Number of circuits: 3)**	Cable temperature by Ib:	**30 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**42,5 °C**
Total derating coefficient:	**0,7**	Ib<=In<=Iz Coordination:	**1,18<=32<=70 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**14,1 kA**	Ip1ft:	**4,23 kA**
Ikv max downstream:	**4,57 kA**	Ik1ftmin:	**1,53 kA**
Imagmax (maximum magnetic):	**1532 A**	Ik1fnmax:	**2,08 kA**
Ik max:	**4,57 kA**	Ip1fn:	**4,41 kA**
Ip:	**5,22 kA**	Ik1fnmin:	**1,56 kA**
Ik min:	**3,44 kA**	Zk min:	**50,6 mohm**
Ik2ftmax:	**4,05 kA**	Zk max:	**63,9 mohm**
Ip2ft:	**4,98 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**2,99 kA**	Zk2 max:	**0 mohm**
Ik2max:	**3,96 kA**	Zk1ftmin:	**113,1 mohm**
Ip2:	**4,88 kA**	Zk1ftmax:	**143,2 mohm**
Ik2min:	**2,98 kA**	Zk1fnmin:	**110,8 mohm**
Ik1ftmax:	**2,04 kA**	Zk1fnmx:	**140,9 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60H-D - 32A**		
Protection type:	**MT**		
Protection nominal current.:	**32 A**	Neutral thermic trip setting:	**32 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**448 A**
Release curve:	**D**	Breaking capacity BC:	**15 kA**
Thermic trip setting:	**32 A**	BC > Upstream short-circuit I max:	**15 >= 14,1 kA**
Magnetic trip setting:	**448 A**	Standard:	**Icu - EN 60947**
Magnetic rel. < I max. mag:	**448 < 1532 A**		

Identification

Unit ref-mark:	**+CABINA GEN - BT.QESIC-S1-QESIC-S1 C-11**
Denomination 1:	QPALCO
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**0 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**0 kW**	Input frequency:	**50 Hz**
Reactive power:	**0 kVAR**	Transferred upstream power:	**0 kVA**
Load rated current Ib:	**0 A**	Total power:	**22,2 kVA**
Power factor:	**0,9**	Available power:	**22,2 kVA**
Rated voltage:	**400 V**		

Cables

Formation:	**5G16**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FG16OM16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**EPR**	K^2S^2 phase conductor:	**$5,235*10^6 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$5,235*10^6 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$5,235*10^6 A^2s$**
Line length:	**30 m**	Partial voltage drop by Ib:	**0 %**
Iz withstand current:	**70 A**	Total voltage drop by Ib:	**0,287 %**
Neutral withstand current:	**70 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**0,7 (Number of circuits: 3)**	Cable temperature by Ib:	**30 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**42,5 °C**
Total derating coefficient:	**0,7**	Ib<=In<=Iz Coordination:	**0<=32<=70 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**14,1 kA**	Ip1ft:	**4,23 kA**
Ikv max downstream:	**4,57 kA**	Ik1ftmin:	**1,53 kA**
Imagmax (maximum magnetic):	**1532 A**	Ik1fnmax:	**2,08 kA**
Ik max:	**4,57 kA**	Ip1fn:	**4,41 kA**
Ip:	**5,22 kA**	Ik1fnmin:	**1,56 kA**
Ik min:	**3,44 kA**	Zk min:	**50,6 mohm**
Ik2ftmax:	**4,05 kA**	Zk max:	**63,9 mohm**
Ip2ft:	**4,98 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**2,99 kA**	Zk2 max:	**0 mohm**
Ik2max:	**3,96 kA**	Zk1ftmin:	**113,1 mohm**
Ip2:	**4,88 kA**	Zk1ftmax:	**143,2 mohm**
Ik2min:	**2,98 kA**	Zk1fnmin:	**110,8 mohm**
Ik1ftmax:	**2,04 kA**	Zk1fnmx:	**140,9 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60H-D - 32A**		
Protection type:	**MT**		
Protection nominal current.:	**32 A**	Neutral thermic trip setting:	**32 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**448 A**
Release curve:	**D**	Breaking capacity BC:	**15 kA**
Thermic trip setting:	**32 A**	BC > Upstream short-circuit I max:	**15 >= 14,1 kA**
Magnetic trip setting:	**448 A**	Standard:	**Icu - EN 60947**
Magnetic rel. < I max. mag:	**448 < 1532 A**		

Identification

Unit ref-mark:	**+CABINA GEN - BT.QESIC-S1-QESIC-S1 C-00**
Denomination 1:	
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**10,2 kW**	Distribution system:	**TN-S**
Coefficient:	**0,5**	Phases link:	**3P+N**
Power dimensioning:	**5,08 kW**	Input frequency:	**50 Hz**
Reactive power:	**2,49 kVAR**	Transferred upstream power:	**5,66 kVA**
Load rated current Ib:	**12,8 A**	Total power:	**220 kVA**
Power factor:	**0,898**	Available power:	**214,3 kVA**
Rated voltage:	**400 V**		

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**14,1 kA**	Ip1ft:	**6,76 kA**
Ikv max downstream:	**14,3 kA**	Ik1ftmin:	**4,18 kA**
Imagmax (maximum magnetic):	**4180 A**	Ik1fnmax:	**5,83 kA**
Ik max:	**14,1 kA**	Ip1fn:	**7,2 kA**
Ip:	**8,17 kA**	Ik1fnmin:	**4,44 kA**
Ik min:	**11,3 kA**	Zk min:	**16,4 mohm**
Ik2ftmax:	**12,7 kA**	Zk max:	**19,5 mohm**
Ip2ft:	**7,86 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**9,53 kA**	Zk2 max:	**0 mohm**
Ik2max:	**12,2 kA**	Zk1ftmin:	**42,9 mohm**
Ip2:	**7,73 kA**	Zk1ftmax:	**52,5 mohm**
Ik2min:	**9,77 kA**	Zk1fnmin:	**39,6 mohm**
Ik1ftmax:	**5,39 kA**	Zk1fnmx:	**49,4 mohm**

Protection

Protection manufacturer:	**ABB**		
Protection ref-mark:	**Tmax T5D**		
Protection nominal current.:	**400 A**	Overload current Ins:	**317,5 A**
Number of poles:	**4**	Breaking capacity BC:	**n.d.**

Identification

Unit ref-mark:	**+CABINA GEN - BT.QESIC-S1-QESIC-S1 C-14**
Denomination 1:	Protezione trafo 24V
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution preferential**		
Rated power:	**0,107 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**L1-N**
Power dimensioning:	**0,107 kW**	Input frequency:	**50 Hz**
Reactive power:	**0,106 kVAR**	Transferred upstream power:	**0,151 kVA**
Load rated current Ib:	**0,653 A**	Total power:	**2,31 kVA**
Power factor:	**0,711**	Available power:	**2,16 kVA**
Rated voltage:	**231 V**		

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**5,83 kA**	Ip1fn:	**2,91 kA**
Ikv max downstream:	**5,83 kA**	Ik1fnmin:	**4,44 kA**
Imagmax (maximum magnetic):	**4179 A**	Zk1ftmin:	**42,9 mohm**
Ik1ftmax:	**5,39 kA**	Zk1ftmax:	**52,5 mohm**
Ip1ft:	**2,78 kA**	Zk1fnmin:	**39,6 mohm**
Ik1ftmin:	**4,18 kA**	Zk1fnmx:	**49,4 mohm**
Ik1fnmax:	**5,83 kA**		

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60N-C - 10A**		
Protection type:	**MT**		
Protection nominal current.:	**10 A**	Magnetic rel. < I max. mag:	**100 < 4179 A**
Number of poles:	**2**	Breaking capacity BC:	**20 kA**
Release curve:	**C**	BC > Upstream short-circuit I max:	**20 >= 5,83 kA**
Thermic trip setting:	**10 A**	Standard:	**Icu - EN 60947**
Magnetic trip setting:	**100 A**		

Identification

Unit ref-mark:	**+CABINA GEN - BT.QESIC-S1-QESIC-S1 C-12**
Denomination 1:	QELS
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**2,82 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**2,82 kW**	Input frequency:	**50 Hz**
Reactive power:	**1,37 kVAR**	Transferred upstream power:	**3,13 kVA**
Load rated current Ib:	**8,05 A**	Total power:	**55,4 kVA**
Power factor:	**0,9**	Available power:	**52,3 kVA**
Rated voltage:	**400 V**		

Cables

Formation:	**5G25**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FG16OM16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**EPR**	K^2S^2 phase conductor:	**$1,278*10^7 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$1,278*10^7 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$1,278*10^7 A^2s$**
Line length:	**10 m**	Partial voltage drop by Ib:	**0,058 %**
Iz withstand current:	**88,9 A**	Total voltage drop by Ib:	**0,345 %**
Neutral withstand current:	**88,9 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**0,7 (Number of circuits: 3)**	Cable temperature by Ib:	**30,5 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**78,6 °C**
Total derating coefficient:	**0,7**	Ib<=In<=Iz Coordination:	**8,05<=80<=88,9 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**14,1 kA**	Ip1ft:	**5,02 kA**
Ikv max downstream:	**9,89 kA**	Ik1ftmin:	**3,06 kA**
Imagmax (maximum magnetic):	**3061 A**	Ik1fnmax:	**4,22 kA**
Ik max:	**9,89 kA**	Ip1fn:	**5,24 kA**
Ip:	**5,73 kA**	Ik1fnmin:	**3,19 kA**
Ik min:	**7,68 kA**	Zk min:	**23,4 mohm**
Ik2ftmax:	**8,86 kA**	Zk max:	**28,6 mohm**
Ip2ft:	**5,51 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**6,57 kA**	Zk2 max:	**0 mohm**
Ik2max:	**8,56 kA**	Zk1ftmin:	**57,6 mohm**
Ip2:	**5,43 kA**	Zk1ftmax:	**71,7 mohm**
Ik2min:	**6,65 kA**	Zk1fnmin:	**54,7 mohm**
Ik1ftmax:	**4,01 kA**	Zk1fnmx:	**68,9 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**NG125N-D**		
Protection type:	**MT**		
Protection nominal current.:	**80 A**	Neutral thermic trip setting:	**80 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**1120 A**
Release curve:	**D**	Breaking capacity BC:	**25 kA**
Thermic trip setting:	**80 A**	BC > Upstream short-circuit I max:	**25 >= 14,1 kA**
Magnetic trip setting:	**1120 A**	Standard:	**Icu - EN 60947**
Magnetic rel. < I max. mag:	**1120 < 3061 A**		

Identification

Unit ref-mark:	**+CABINA GEN - BT.QESIC-S1-QESIC-S1 C-16**
Denomination 1:	Circuito Illuminazione
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic terminal**		
Rated power:	**0,15 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**L1-N**
Power dimensioning:	**0,15 kW**	Input frequency:	**50 Hz**
Reactive power:	**0,073 kVAR**	Transferred upstream power:	**0,167 kVA**
Load rated current Ib:	**0,722 A**	Total power:	**2,31 kVA**
Power factor:	**0,9**	Available power:	**2,14 kVA**
Rated voltage:	**231 V**	Number of loads per unit:	**1**

Cables

Formation:	**3G4**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FG16OM16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**EPR**	K^2S^2 phase conductor:	**$3,272*10^5 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$3,272*10^5 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$3,272*10^5 A^2s$**
Line length:	**10 m**	Partial voltage drop by Ib:	**0,036 %**
Iz withstand current:	**49 A**	Total voltage drop by Ib:	**0,322 %**
Neutral withstand current:	**49 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**1 (Number of circuits: 1)**	Cable temperature by Ib:	**30 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**32,5 °C**
Total derating coefficient:	**1**	Ib<=In<=Iz Coordination:	**0,722<=10<=49 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**5,83 kA**	Ip1fn:	**2,91 kA**
Ikv max downstream:	**1,69 kA**	Ik1fnmin:	**1,26 kA**
Imagmax (maximum magnetic):	**1244 A**	Zk1ftmin:	**138,7 mohm**
Ik1ftmax:	**1,66 kA**	Zk1ftmax:	**176,4 mohm**
Ip1ft:	**2,78 kA**	Zk1fnmin:	**136,7 mohm**
Ik1ftmin:	**1,24 kA**	Zk1fnmx:	**174,3 mohm**
Ik1fnmax:	**1,69 kA**		

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60N-C - 10A + Vigi iC60 A 0,03 A**		
Protection type:	**MT+D**		
Protection nominal current.:	**10 A**	Magnetic rel. < I max. mag:	**100 < 1244 A**
Number of poles:	**2**	Residual trip setting:	**0,03 A**
Release curve:	**C**	Breaking capacity BC:	**20 kA**
Operational class:	**A**	BC > Upstream short-circuit I max:	**20 >= 5,83 kA**
Thermic trip setting:	**10 A**	Standard:	**Icu - EN 60947**
Magnetic trip setting:	**100 A**		

Identification

Unit ref-mark:	**+CABINA GEN - BT.QESIC-S1-QESIC-S1 C-03**
Denomination 1:	QELN
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**1,6 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**1,6 kW**	Input frequency:	**50 Hz**
Reactive power:	**0,775 kVAR**	Transferred upstream power:	**1,78 kVA**
Load rated current Ib:	**2,81 A**	Total power:	**55,4 kVA**
Power factor:	**0,9**	Available power:	**53,6 kVA**
Rated voltage:	**400 V**		

Cables

Formation:	**5G25**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FG16OM16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**EPR**	K^2S^2 phase conductor:	**$1,278*10^7 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$1,278*10^7 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$1,278*10^7 A^2s$**
Line length:	**10 m**	Partial voltage drop by Ib:	**0,012 %**
Iz withstand current:	**88,9 A**	Total voltage drop by Ib:	**0,299 %**
Neutral withstand current:	**88,9 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**0,7 (Number of circuits: 3)**	Cable temperature by Ib:	**30,1 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**78,6 °C**
Total derating coefficient:	**0,7**	Ib<=In<=Iz Coordination:	**2,81<=80<=88,9 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**14,1 kA**	Ip1ft:	**5,02 kA**
Ikv max downstream:	**9,89 kA**	Ik1ftmin:	**3,06 kA**
Imagmax (maximum magnetic):	**3061 A**	Ik1fnmax:	**4,22 kA**
Ik max:	**9,89 kA**	Ip1fn:	**5,24 kA**
Ip:	**5,73 kA**	Ik1fnmin:	**3,19 kA**
Ik min:	**7,68 kA**	Zk min:	**23,4 mohm**
Ik2ftmax:	**8,86 kA**	Zk max:	**28,6 mohm**
Ip2ft:	**5,51 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**6,57 kA**	Zk2 max:	**0 mohm**
Ik2max:	**8,56 kA**	Zk1ftmin:	**57,6 mohm**
Ip2:	**5,43 kA**	Zk1ftmax:	**71,7 mohm**
Ik2min:	**6,65 kA**	Zk1fnmin:	**54,7 mohm**
Ik1ftmax:	**4,01 kA**	Zk1fnmx:	**68,9 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**NG125N-D**		
Protection type:	**MT**		
Protection nominal current.:	**80 A**	Neutral thermic trip setting:	**80 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**1120 A**
Release curve:	**D**	Breaking capacity BC:	**25 kA**
Thermic trip setting:	**80 A**	BC > Upstream short-circuit I max:	**25 >= 14,1 kA**
Magnetic trip setting:	**1120 A**	Standard:	**Icu - EN 60947**
Magnetic rel. < I max. mag:	**1120 < 3061 A**		

Identification

Unit ref-mark:	**+CABINA GEN - BT.QESIC-S1-QESIC-S1 C-17**
Denomination 1:	Illuminazione Vie Esodo
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic terminal**		
Rated power:	**0,1 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**L1-N**
Power dimensioning:	**0,1 kW**	Input frequency:	**50 Hz**
Reactive power:	**0,048 kVAR**	Transferred upstream power:	**0,111 kVA**
Load rated current Ib:	**0,481 A**	Total power:	**2,31 kVA**
Power factor:	**0,9**	Available power:	**2,2 kVA**
Rated voltage:	**231 V**	Number of loads per unit:	**1**

Cables

Formation:	**3G4**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FG16OM16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**EPR**	K^2S^2 phase conductor:	**$3,272*10^5 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$3,272*10^5 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$3,272*10^5 A^2s$**
Line length:	**10 m**	Partial voltage drop by Ib:	**0,024 %**
Iz withstand current:	**49 A**	Total voltage drop by Ib:	**0,311 %**
Neutral withstand current:	**49 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**1 (Number of circuits: 1)**	Cable temperature by Ib:	**30 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**32,5 °C**
Total derating coefficient:	**1**	Ib<=In<=Iz Coordination:	**0,481<=10<=49 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**5,83 kA**	Ip1fn:	**2,91 kA**
Ikv max downstream:	**1,69 kA**	Ik1fnmin:	**1,26 kA**
Imagmax (maximum magnetic):	**1244 A**	Zk1ftmin:	**138,7 mohm**
Ik1ftmax:	**1,66 kA**	Zk1ftmax:	**176,4 mohm**
Ip1ft:	**2,78 kA**	Zk1fnmin:	**136,7 mohm**
Ik1ftmin:	**1,24 kA**	Zk1fnmx:	**174,3 mohm**
Ik1fnmax:	**1,69 kA**		

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60N-C - 10A + Vigi iC60 A 0,03 A**		
Protection type:	**MT+D**		
Protection nominal current.:	**10 A**	Magnetic rel. < I max. mag:	**100 < 1244 A**
Number of poles:	**2**	Residual trip setting:	**0,03 A**
Release curve:	**C**	Breaking capacity BC:	**20 kA**
Operational class:	**A**	BC > Upstream short-circuit I max:	**20 >= 5,83 kA**
Thermic trip setting:	**10 A**	Standard:	**Icu - EN 60947**
Magnetic trip setting:	**100 A**		

Identification

Unit ref-mark:	**+CABINA GEN - BT.QESIC-S1-QESIC-S1 C-18**
Denomination 1:	Circuito FM
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic terminal**		
Rated power:	**1 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**L3-N**
Power dimensioning:	**1 kW**	Input frequency:	**50 Hz**
Reactive power:	**0,484 kVAR**	Transferred upstream power:	**1,11 kVA**
Load rated current Ib:	**4,81 A**	Total power:	**3,7 kVA**
Power factor:	**0,9**	Available power:	**2,58 kVA**
Rated voltage:	**231 V**	Number of loads per unit:	**1**

Cables

Formation:	**3G2.5**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FG16OM16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**EPR**	K^2S^2 phase conductor:	**$1,278*10^5 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$1,278*10^5 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$1,278*10^5 A^2s$**
Line length:	**10 m**	Partial voltage drop by Ib:	**0,383 %**
Iz withstand current:	**36 A**	Total voltage drop by Ib:	**0,65 %**
Neutral withstand current:	**36 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**1 (Number of circuits: 1)**	Cable temperature by Ib:	**31,1 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**41,9 °C**
Total derating coefficient:	**1**	Ib<=In<=Iz Coordination:	**4,81<=16<=36 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**5,83 kA**	Ip1fn:	**3,3 kA**
Ikv max downstream:	**1,17 kA**	Ik1fnmin:	**0,873 kA**
Imagmax (maximum magnetic):	**866,4 A**	Zk1ftmin:	**198,6 mohm**
Ik1ftmax:	**1,16 kA**	Zk1ftmax:	**253,2 mohm**
Ip1ft:	**3,17 kA**	Zk1fnmin:	**196,7 mohm**
Ik1ftmin:	**0,866 kA**	Zk1fnmx:	**251,3 mohm**
Ik1fnmax:	**1,17 kA**		

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60N-C - 16A + Vigi iC60 A 0,03 A**		
Protection type:	**MT+D**		
Protection nominal current.:	**16 A**	Magnetic rel. < I max. mag:	**160 < 866,4 A**
Number of poles:	**2**	Residual trip setting:	**0,03 A**
Release curve:	**C**	Breaking capacity BC:	**20 kA**
Operational class:	**A**	BC > Upstream short-circuit I max:	**20 >= 5,83 kA**
Thermic trip setting:	**16 A**	Standard:	**Icu - EN 60947**
Magnetic trip setting:	**160 A**		

Identification

Unit ref-mark:	**+CABINA GEN - BT.QESIC-S1-QESIC-S1 C-02**
Denomination 1:	QECDZ2
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**0,49 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**0,49 kW**	Input frequency:	**50 Hz**
Reactive power:	**0,237 kVAR**	Transferred upstream power:	**0,544 kVA**
Load rated current Ib:	**1,46 A**	Total power:	**22,2 kVA**
Power factor:	**0,9**	Available power:	**21,6 kVA**
Rated voltage:	**400 V**		

Cables

Formation:	**5G16**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FG16OM16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**EPR**	K^2S^2 phase conductor:	**$5,235*10^6 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$5,235*10^6 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$5,235*10^6 A^2s$**
Line length:	**30 m**	Partial voltage drop by Ib:	**0,05 %**
Iz withstand current:	**70 A**	Total voltage drop by Ib:	**0,337 %**
Neutral withstand current:	**70 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**0,7 (Number of circuits: 3)**	Cable temperature by Ib:	**30 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**42,5 °C**
Total derating coefficient:	**0,7**	Ib<=In<=Iz Coordination:	**1,46<=32<=70 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**14,1 kA**	Ip1ft:	**4,23 kA**
Ikv max downstream:	**4,57 kA**	Ik1ftmin:	**1,53 kA**
Imagmax (maximum magnetic):	**1532 A**	Ik1fnmax:	**2,08 kA**
Ik max:	**4,57 kA**	Ip1fn:	**4,41 kA**
Ip:	**5,22 kA**	Ik1fnmin:	**1,56 kA**
Ik min:	**3,44 kA**	Zk min:	**50,6 mohm**
Ik2ftmax:	**4,05 kA**	Zk max:	**63,9 mohm**
Ip2ft:	**4,98 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**2,99 kA**	Zk2 max:	**0 mohm**
Ik2max:	**3,96 kA**	Zk1ftmin:	**113,1 mohm**
Ip2:	**4,88 kA**	Zk1ftmax:	**143,2 mohm**
Ik2min:	**2,98 kA**	Zk1fnmin:	**110,8 mohm**
Ik1ftmax:	**2,04 kA**	Zk1fnmx:	**140,9 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60H-D - 32A**		
Protection type:	**MT**		
Protection nominal current.:	**32 A**	Neutral thermic trip setting:	**32 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**448 A**
Release curve:	**D**	Breaking capacity BC:	**15 kA**
Thermic trip setting:	**32 A**	BC > Upstream short-circuit I max:	**15 >= 14,1 kA**
Magnetic trip setting:	**448 A**	Standard:	**Icu - EN 60947**
Magnetic rel. < I max. mag:	**448 < 1532 A**		

Identification

Unit ref-mark:	**+CABINA GEN - BT.QESIC-S1-QESIC-S1 C-19**
Denomination 1:	Riserva
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**0 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**0 kW**	Input frequency:	**50 Hz**
Reactive power:	**0 kVAR**	Transferred upstream power:	**0 kVA**
Load rated current Ib:	**0 A**	Total power:	**34,6 kVA**
Power factor:	**0,9**	Available power:	**34,6 kVA**
Rated voltage:	**400 V**		

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**14,1 kA**	Ip1ft:	**4 kA**
Ikv max downstream:	**14,1 kA**	Ik1ftmin:	**4,18 kA**
Imagmax (maximum magnetic):	**4180 A**	Ik1fnmax:	**5,83 kA**
Ik max:	**14,1 kA**	Ip1fn:	**4,17 kA**
Ip:	**4,66 kA**	Ik1fnmin:	**4,44 kA**
Ik min:	**11,3 kA**	Zk min:	**16,4 mohm**
Ik2ftmax:	**12,7 kA**	Zk max:	**19,5 mohm**
Ip2ft:	**4,5 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**9,53 kA**	Zk2 max:	**0 mohm**
Ik2max:	**12,2 kA**	Zk1ftmin:	**42,9 mohm**
Ip2:	**4,43 kA**	Zk1ftmax:	**52,5 mohm**
Ik2min:	**9,77 kA**	Zk1fnmin:	**39,6 mohm**
Ik1ftmax:	**5,39 kA**	Zk1fnmx:	**49,4 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**NG125L-D + Vigi iC60 A 0,03 A**		
Protection type:	**MT+D**		
Protection nominal current.:	**50 A**	Neutral thermic trip setting:	**50 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**700 A**
Release curve:	**D**	Residual trip setting:	**0,03 A**
Operational class:	**A**	Breaking capacity BC:	**50 kA**
Thermic trip setting:	**50 A**	BC > Upstream short-circuit I max:	**50 >= 14,1 kA**
Magnetic trip setting:	**700 A**	Standard:	**Icu - EN 60947**
Magnetic rel. < I max. mag:	**700 < 4180 A**		

Identification

Unit ref-mark:	**+CABINA GEN - BT.QESIC-S1-QESIC-S1 C-20**
Denomination 1:	Riserva
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**0 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**0 kW**	Input frequency:	**50 Hz**
Reactive power:	**0 kVAR**	Transferred upstream power:	**0 kVA**
Load rated current Ib:	**0 A**	Total power:	**34,6 kVA**
Power factor:	**0,9**	Available power:	**34,6 kVA**
Rated voltage:	**400 V**		

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**14,1 kA**	Ip1ft:	**4 kA**
Ikv max downstream:	**14,1 kA**	Ik1ftmin:	**4,18 kA**
Imagmax (maximum magnetic):	**4180 A**	Ik1fnmax:	**5,83 kA**
Ik max:	**14,1 kA**	Ip1fn:	**4,17 kA**
Ip:	**4,66 kA**	Ik1fnmin:	**4,44 kA**
Ik min:	**11,3 kA**	Zk min:	**16,4 mohm**
Ik2ftmax:	**12,7 kA**	Zk max:	**19,5 mohm**
Ip2ft:	**4,5 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**9,53 kA**	Zk2 max:	**0 mohm**
Ik2max:	**12,2 kA**	Zk1ftmin:	**42,9 mohm**
Ip2:	**4,43 kA**	Zk1ftmax:	**52,5 mohm**
Ik2min:	**9,77 kA**	Zk1fnmin:	**39,6 mohm**
Ik1ftmax:	**5,39 kA**	Zk1fnmx:	**49,4 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**NG125L-D + Vigi iC60 A 0,03 A**		
Protection type:	**MT+D**		
Protection nominal current.:	**50 A**	Neutral thermic trip setting:	**50 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**700 A**
Release curve:	**D**	Residual trip setting:	**0,03 A**
Operational class:	**A**	Breaking capacity BC:	**50 kA**
Thermic trip setting:	**50 A**	BC > Upstream short-circuit I max:	**50 >= 14,1 kA**
Magnetic trip setting:	**700 A**	Standard:	**Icu - EN 60947**
Magnetic rel. < I max. mag:	**700 < 4180 A**		

Identification

Unit ref-mark:	**+CABINA GEN - BT.QESIC-S1-QESIC-S1 C-21**
Denomination 1:	Riserva
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**0 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**0 kW**	Input frequency:	**50 Hz**
Reactive power:	**0 kVAR**	Transferred upstream power:	**0 kVA**
Load rated current Ib:	**0 A**	Total power:	**22,2 kVA**
Power factor:	**0,9**	Available power:	**22,2 kVA**
Rated voltage:	**400 V**		

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**14,1 kA**	Ip1ft:	**4,22 kA**
Ikv max downstream:	**14,1 kA**	Ik1ftmin:	**4,18 kA**
Imagmax (maximum magnetic):	**4180 A**	Ik1fnmax:	**5,83 kA**
Ik max:	**14,1 kA**	Ip1fn:	**4,4 kA**
Ip:	**20,7 kA**	Ik1fnmin:	**4,44 kA**
Ik min:	**11,3 kA**	Zk min:	**16,4 mohm**
Ik2ftmax:	**12,7 kA**	Zk max:	**19,5 mohm**
Ip2ft:	**18,7 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**9,53 kA**	Zk2 max:	**0 mohm**
Ik2max:	**12,2 kA**	Zk1ftmin:	**42,9 mohm**
Ip2:	**17,9 kA**	Zk1ftmax:	**52,5 mohm**
Ik2min:	**9,77 kA**	Zk1fnmin:	**39,6 mohm**
Ik1ftmax:	**5,39 kA**	Zk1fnmx:	**49,4 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60H-C - 32A + Vigi iC60 A 0,03 A**		
Protection type:	**MT+D**		
Protection nominal current.:	**32 A**	Neutral thermic trip setting:	**32 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**320 A**
Release curve:	**C**	Residual trip setting:	**0,03 A**
Operational class:	**A**	Breaking capacity BC:	**15 kA**
Thermic trip setting:	**32 A**	BC > Upstream short-circuit I max:	**15 >= 14,1 kA**
Magnetic trip setting:	**320 A**	Standard:	**Icu - EN 60947**
Magnetic rel. < I max. mag:	**320 < 4180 A**		

Identification

Unit ref-mark:	**+CABINA GEN - BT.QESIC-S1-AUX TR**
Denomination 1:	Trasformatore
Denomination 2:	230/24Vac
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution unit with transformer preferential**		
Rated power:	**0,107 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**L1-N**
Power dimensioning:	**0,107 kW**	Input frequency:	**50 Hz**
Reactive power:	**0,106 kVAR**	Transferred upstream power:	**0,151 kVA**
Load rated current Ib:	**0,653 A**	Total power:	**0,383 kVA**
Power factor:	**0,711**	Available power:	**0,233 kVA**
Rated voltage:	**231 V**		

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**5,83 kA**	Ip1fn:	**2,91 kA**
Ikv max downstream:	**1,51 kA**	Ik1fnmin:	**1,32 kA**
Imagmax (maximum magnetic):	**1322 A**	Zk1fnmin:	**15,9 mohm**
Ik1fnmax:	**1,51 kA**	Zk1fnmx:	**17,3 mohm**

Transformer

Transformer type:	**Normal**	Transformer short circuit losses. Pkr:	**60 W**
Winding connections:	**Monofase**	Transformer short-circuit voltage	**6 %**
Ecocompatible design:	UE N.548/2014 (dal 07/2021)	Transformer no-load losses Pv0:	**7,2 W**
Transformer rated power:	**2 kVA**	Transformer no-load currents Iv0:	**2,9 %**
Primary voltage:	**231 V**	Ilr/In ratio:	**10,5**
No-load secondary voltage:	**24 V**	Insulation type:	**In resin**
Windings ratio N1/N2:	**9,625**		

Identification

Unit ref-mark:	**+CABINA GEN - BT.QESIC-S1-QESIC-S1 C-15**
Denomination 1:	AUX 24V
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic preferential terminal**		
Rated power:	**0,1 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**L1-N**
Power dimensioning:	**0,1 kW**	Input frequency:	**50 Hz**
Reactive power:	**0,048 kVAR**	Transferred upstream power:	**0,111 kVA**
Load rated current Ib:	**4,63 A**	Total power:	**0,384 kVA**
Power factor:	**0,9**	Available power:	**0,273 kVA**
Rated voltage:	**24 V**	Number of loads per unit:	**1**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**1,51 kA**	Ip1fn:	**2,55 kA**
Ikv max downstream:	**1,51 kA**	Ik1fnmin:	**1,32 kA**
Imagmax (maximum magnetic):	**1322 A**	Zk1fnmin:	**15,9 mohm**
Ik1fnmax:	**1,51 kA**	Zk1fnmx:	**17,3 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60N-C - 16A**		
Protection type:	**MT**		
Protection nominal current.:	**16 A**	Magnetic rel. < I max. mag:	**160 < 1322 A**
Number of poles:	**2**	Breaking capacity BC:	**6 kA**
Release curve:	**C**	BC > Upstream short-circuit I max:	**6 >= 1,51 kA**
Thermic trip setting:	**16 A**	Standard:	**Icn - EN 60898**
Magnetic trip setting:	**160 A**		

Identification

Unit ref-mark:	**+CABINA GEN - BT.QESIC-S2-QESIC-S2 C-00**
Denomination 1:	
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**12,3 kW**	Distribution system:	**TN-S**
Coefficient:	**0,5**	Phases link:	**3P+N**
Power dimensioning:	**6,17 kW**	Input frequency:	**50 Hz**
Reactive power:	**3,02 kVAR**	Transferred upstream power:	**6,87 kVA**
Load rated current Ib:	**12,8 A**	Total power:	**220 kVA**
Power factor:	**0,898**	Available power:	**213,1 kVA**
Rated voltage:	**400 V**		

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**13 kA**	Ip1ft:	**6,28 kA**
Ikv max downstream:	**13 kA**	Ik1ftmin:	**3,8 kA**
Imagmax (maximum magnetic):	**3802 A**	Ik1fnmax:	**5,28 kA**
Ik max:	**13 kA**	Ip1fn:	**6,63 kA**
Ip:	**7,89 kA**	Ik1fnmin:	**4,01 kA**
Ik min:	**10,4 kA**	Zk min:	**17,8 mohm**
Ik2ftmax:	**11,7 kA**	Zk max:	**21,2 mohm**
Ip2ft:	**7,59 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**8,77 kA**	Zk2 max:	**0 mohm**
Ik2max:	**11,3 kA**	Zk1ftmin:	**46,9 mohm**
Ip2:	**7,48 kA**	Zk1ftmax:	**57,7 mohm**
Ik2min:	**8,98 kA**	Zk1fnmin:	**43,7 mohm**
Ik1ftmax:	**4,92 kA**	Zk1fnmx:	**54,6 mohm**

Protection

Protection manufacturer:	**ABB**		
Protection ref-mark:	**Tmax T5D**		
Protection nominal current.:	**400 A**	Overload current Ins:	**317,5 A**
Number of poles:	**4**	Breaking capacity BC:	**n.d.**

Identification

Unit ref-mark:	**+CABINA GEN - BT.QESIC-S2-QESIC-S2 C-01**
Denomination 1:	QECDZ4-S2
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**0,75 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**0,75 kW**	Input frequency:	**50 Hz**
Reactive power:	**0,363 kVAR**	Transferred upstream power:	**0,833 kVA**
Load rated current Ib:	**1,36 A**	Total power:	**22,2 kVA**
Power factor:	**0,9**	Available power:	**21,3 kVA**
Rated voltage:	**400 V**		

Cables

Formation:	**5G10**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Coat on horizontal or vertical punched dridges (or not)		
Cable designation	FTG18OM16 0,6/1 kV B2ca-s1a,d1,a1		
Insulating (line+neutral+PE):	**EPR**	K^2S^2 phase conductor:	**$2,045*10^6 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$2,045*10^6 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$2,045*10^6 A^2s$**
Line length:	**100 m**	Partial voltage drop by Ib:	**0,155 %**
Iz withstand current:	**61,5 A**	Total voltage drop by Ib:	**0,407 %**
Neutral withstand current:	**61,5 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**0,82 (Number of circuits: 3)**	Cable temperature by Ib:	**30 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**46,2 °C**
Total derating coefficient:	**0,82**	Ib<=In<=Iz Coordination:	**1,36<=32<=61,5 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**13 kA**	Ip1ft:	**4,02 kA**
Ikv max downstream:	**1,12 kA**	Ik1ftmin:	**0,404 kA**
Imagmax (maximum magnetic):	**403,8 A**	Ik1fnmax:	**0,545 kA**
Ik max:	**1,12 kA**	Ip1fn:	**4,17 kA**
Ip:	**5 kA**	Ik1fnmin:	**0,405 kA**
Ik min:	**0,835 kA**	Zk min:	**205,7 mohm**
Ik2ftmax:	**0,992 kA**	Zk max:	**262,8 mohm**
Ip2ft:	**4,78 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**0,733 kA**	Zk2 max:	**0 mohm**
Ik2max:	**0,972 kA**	Zk1ftmin:	**425,3 mohm**
Ip2:	**4,7 kA**	Zk1ftmax:	**543,3 mohm**
Ik2min:	**0,723 kA**	Zk1fnmin:	**423,5 mohm**
Ik1ftmax:	**0,543 kA**	Zk1fnmx:	**541,4 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60H-D - 32A**		
Protection type:	**MT**		
Protection nominal current.:	**32 A**	Neutral thermic trip setting:	**32 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**448 A**
Release curve:	**D**	Breaking capacity BC:	**15 kA**
Thermic trip setting:	**32 A**	BC > Upstream short-circuit I max:	**15 >= 13 kA**
Magnetic trip setting:	**448 A**	Standard:	**Icu - EN 60947**
Magnetic rel. < I max. mag:	**Indirect contacts prot**		

Identification

Unit ref-mark:	**+CABINA GEN - BT.QESIC-S2-QESIC-S2 C-02**
Denomination 1:	QECDZ1
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**0,665 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**0,665 kW**	Input frequency:	**50 Hz**
Reactive power:	**0,322 kVAR**	Transferred upstream power:	**0,739 kVA**
Load rated current Ib:	**2,3 A**	Total power:	**22,2 kVA**
Power factor:	**0,9**	Available power:	**21,4 kVA**
Rated voltage:	**400 V**		

Cables

Formation:	**5G10**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FTG18OM16 0,6/1 kV B2ca-s1a,d1,a1		
Insulating (line+neutral+PE):	**EPR**	K^2S^2 phase conductor:	**$2,045*10^6 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$2,045*10^6 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$2,045*10^6 A^2s$**
Line length:	**105 m**	Partial voltage drop by Ib:	**0,447 %**
Iz withstand current:	**75 A**	Total voltage drop by Ib:	**0,734 %**
Neutral withstand current:	**75 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**1 (Number of circuits: 1)**	Cable temperature by Ib:	**30,1 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**40,9 °C**
Total derating coefficient:	**1**	Ib<=In<=Iz Coordination:	**2,3<=32<=75 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**13 kA**	Ip1ft:	**4,02 kA**
Ikv max downstream:	**1,07 kA**	Ik1ftmin:	**0,386 kA**
Imagmax (maximum magnetic):	**386,5 A**	Ik1fnmax:	**0,522 kA**
Ik max:	**1,07 kA**	Ip1fn:	**4,17 kA**
Ip:	**5 kA**	Ik1fnmin:	**0,388 kA**
Ik min:	**0,798 kA**	Zk min:	**215,3 mohm**
Ik2ftmax:	**0,948 kA**	Zk max:	**275 mohm**
Ip2ft:	**4,78 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**0,701 kA**	Zk2 max:	**0 mohm**
Ik2max:	**0,929 kA**	Zk1ftmin:	**444,4 mohm**
Ip2:	**4,7 kA**	Zk1ftmax:	**567,7 mohm**
Ik2min:	**0,691 kA**	Zk1fnmin:	**442,5 mohm**
Ik1ftmax:	**0,52 kA**	Zk1fnmx:	**565,8 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60H-D - 32A**		
Protection type:	**MT**		
Protection nominal current.:	**32 A**	Neutral thermic trip setting:	**32 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**448 A**
Release curve:	**D**	Breaking capacity BC:	**15 kA**
Thermic trip setting:	**32 A**	BC > Upstream short-circuit I max:	**15 >= 13 kA**
Magnetic trip setting:	**448 A**	Standard:	**Icu - EN 60947**
Magnetic rel. < I max. mag:	**Indirect contacts prot**		

Identification

Unit ref-mark:	**+CABINA GEN - BT.QESIC-S2-QESIC-S2 C-03**
Denomination 1:	QECAM2
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**0,4 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**0,4 kW**	Input frequency:	**50 Hz**
Reactive power:	**0,194 kVAR**	Transferred upstream power:	**0,444 kVA**
Load rated current Ib:	**1,12 A**	Total power:	**22,2 kVA**
Power factor:	**0,9**	Available power:	**21,7 kVA**
Rated voltage:	**400 V**		

Cables

Formation:	**5G10**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FTG18OM16 0,6/1 kV B2ca-s1a,d1,a1		
Insulating (line+neutral+PE):	**EPR**	K^2S^2 phase conductor:	**$2,045*10^6 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$2,045*10^6 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$2,045*10^6 A^2s$**
Line length:	**70 m**	Partial voltage drop by Ib:	**0,137 %**
Iz withstand current:	**75 A**	Total voltage drop by Ib:	**0,424 %**
Neutral withstand current:	**75 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**1 (Number of circuits: 1)**	Cable temperature by Ib:	**30 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**40,9 °C**
Total derating coefficient:	**1**	Ib<=In<=Iz Coordination:	**1,12<=32<=75 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**13 kA**	Ip1ft:	**4,02 kA**
Ikv max downstream:	**1,55 kA**	Ik1ftmin:	**0,553 kA**
Imagmax (maximum magnetic):	**552,7 A**	Ik1fnmax:	**0,747 kA**
Ik max:	**1,55 kA**	Ip1fn:	**4,17 kA**
Ip:	**5 kA**	Ik1fnmin:	**0,555 kA**
Ik min:	**1,16 kA**	Zk min:	**148,6 mohm**
Ik2ftmax:	**1,37 kA**	Zk max:	**189,6 mohm**
Ip2ft:	**4,78 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**1,01 kA**	Zk2 max:	**0 mohm**
Ik2max:	**1,35 kA**	Zk1ftmin:	**311 mohm**
Ip2:	**4,7 kA**	Zk1ftmax:	**396,9 mohm**
Ik2min:	**1 kA**	Zk1fnmin:	**309,1 mohm**
Ik1ftmax:	**0,743 kA**	Zk1fnmx:	**395 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60H-D - 32A**		
Protection type:	**MT**		
Protection nominal current.:	**32 A**	Neutral thermic trip setting:	**32 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**448 A**
Release curve:	**D**	Breaking capacity BC:	**15 kA**
Thermic trip setting:	**32 A**	BC > Upstream short-circuit I max:	**15 >= 13 kA**
Magnetic trip setting:	**448 A**	Standard:	**Icu - EN 60947**
Magnetic rel. < I max. mag:	**448 < 552,7 A**		

Identification

Unit ref-mark:	**+CABINA GEN - BT.QESIC-S2-QESIC-S2 C-04**
Denomination 1:	QELN
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**5,01 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**5,01 kW**	Input frequency:	**50 Hz**
Reactive power:	**2,43 kVAR**	Transferred upstream power:	**5,57 kVA**
Load rated current Ib:	**16,3 A**	Total power:	**55,4 kVA**
Power factor:	**0,9**	Available power:	**49,9 kVA**
Rated voltage:	**400 V**		

Cables

Formation:	**4x(1x95)+1G50**		
Type of lay:	13 - insul. single-core cables, armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FTG18M16 0,6/1 kV B2ca-s1a,d1,a1		
Insulating (line+neutral+PE):	**EPR**	K^2S^2 phase conductor:	**$1,846*10^8 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$1,846*10^8 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$7,744*10^7 A^2s$**
Line length:	**105 m**	Partial voltage drop by Ib:	**0,342 %**
Iz withstand current:	**342 A**	Total voltage drop by Ib:	**0,627 %**
Neutral withstand current:	**342 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**1 (Number of circuits: 1)**	Cable temperature by Ib:	**30,1 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**33,3 °C**
Total derating coefficient:	**1**	Ib<=In<=Iz Coordination:	**16,3<=80<=342 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**13 kA**	Ip1ft:	**4,76 kA**
Ikv max downstream:	**5,7 kA**	Ik1ftmin:	**1,6 kA**
Imagmax (maximum magnetic):	**1597 A**	Ik1fnmax:	**2,6 kA**
Ik max:	**5,7 kA**	Ip1fn:	**4,94 kA**
Ip:	**5,54 kA**	Ik1fnmin:	**1,97 kA**
Ik min:	**4,43 kA**	Zk min:	**40,5 mohm**
Ik2ftmax:	**5,12 kA**	Zk max:	**49,5 mohm**
Ip2ft:	**5,33 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**3,78 kA**	Zk2 max:	**0 mohm**
Ik2max:	**4,94 kA**	Zk1ftmin:	**109,7 mohm**
Ip2:	**5,25 kA**	Zk1ftmax:	**137,3 mohm**
Ik2min:	**3,84 kA**	Zk1fnmin:	**88,8 mohm**
Ik1ftmax:	**2,11 kA**	Zk1fnmx:	**111,1 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**NG125N-D**		
Protection type:	**MT**		
Protection nominal current.:	**80 A**	Neutral thermic trip setting:	**80 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**1120 A**
Release curve:	**D**	Breaking capacity BC:	**25 kA**
Thermic trip setting:	**80 A**	BC > Upstream short-circuit I max:	**25 >= 13 kA**
Magnetic trip setting:	**1120 A**	Standard:	**Icu - EN 60947**
Magnetic rel. < I max. mag:	**1120 < 1597 A**		

Identification

Unit ref-mark:	**+CABINA GEN - BT.QESIC-S2-QESIC-S2 C-05**
Denomination 1:	QESCP-S2
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**0 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**0 kW**	Input frequency:	**50 Hz**
Reactive power:	**0 kVAR**	Transferred upstream power:	**0 kVA**
Load rated current Ib:	**0 A**	Total power:	**22,2 kVA**
Power factor:	**0,9**	Available power:	**22,2 kVA**
Rated voltage:	**400 V**		

Cables

Formation:	**5G10**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FTG18OM16 0,6/1 kV B2ca-s1a,d1,a1		
Insulating (line+neutral+PE):	**EPR**	K^2S^2 phase conductor:	**2,045*10 ^{6}A²s**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**2,045*10 ^{6}A²s**
Conductor material:	**COPPER**	K^2S^2 PE:	**2,045*10 ^{6}A²s**
Line length:	**16 m**	Partial voltage drop by Ib:	**0 %**
Iz withstand current:	**75 A**	Total voltage drop by Ib:	**0,287 %**
Neutral withstand current:	**75 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**1 (Number of circuits: 1)**	Cable temperature by Ib:	**30 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**40,9 °C**
Total derating coefficient:	**1**	Ib<=In<=Iz Coordination:	**0<=32<=75 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**13 kA**	Ip1ft:	**4,02 kA**
Ikv max downstream:	**4,98 kA**	Ik1ftmin:	**1,64 kA**
Imagmax (maximum magnetic):	**1636 A**	Ik1fnmax:	**2,23 kA**
Ik max:	**4,98 kA**	Ip1fn:	**4,17 kA**
Ip:	**5 kA**	Ik1fnmin:	**1,66 kA**
Ik min:	**3,75 kA**	Zk min:	**46,3 mohm**
Ik2ftmax:	**4,42 kA**	Zk max:	**58,4 mohm**
Ip2ft:	**4,78 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**3,26 kA**	Zk2 max:	**0 mohm**
Ik2max:	**4,32 kA**	Zk1ftmin:	**106 mohm**
Ip2:	**4,7 kA**	Zk1ftmax:	**134,1 mohm**
Ik2min:	**3,25 kA**	Zk1fnmin:	**103,6 mohm**
Ik1ftmax:	**2,18 kA**	Zk1fnmx:	**131,8 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60H-D - 32A**		
Protection type:	**MT**		
Protection nominal current.:	**32 A**	Neutral thermic trip setting:	**32 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**448 A**
Release curve:	**D**	Breaking capacity BC:	**15 kA**
Thermic trip setting:	**32 A**	BC > Upstream short-circuit I max:	**15 >= 13 kA**
Magnetic trip setting:	**448 A**	Standard:	**Icu - EN 60947**
Magnetic rel. < I max. mag:	**448 < 1636 A**		

Identification

Unit ref-mark:	**+CABINA GEN - BT.QESIC-S2-QESIC-S2 C-06**
Denomination 1:	QELS
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**1,85 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**1,85 kW**	Input frequency:	**50 Hz**
Reactive power:	**0,896 kVAR**	Transferred upstream power:	**2,06 kVA**
Load rated current Ib:	**5,81 A**	Total power:	**55,4 kVA**
Power factor:	**0,9**	Available power:	**53,4 kVA**
Rated voltage:	**400 V**		

Cables

Formation:	**5G16**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Coat on horizontal or vertical punched dridges (or not)		
Cable designation	FTG18OM16 0,6/1 kV B2ca-s1a,d1,a1		
Insulating (line+neutral+PE):	**EPR**	K^2S^2 phase conductor:	**$5,235*10^6 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$5,235*10^6 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$5,235*10^6 A^2s$**
Line length:	**35 m**	Partial voltage drop by Ib:	**0,239 %**
Iz withstand current:	**82 A**	Total voltage drop by Ib:	**0,526 %**
Neutral withstand current:	**82 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**0,82 (Number of circuits: 3)**	Cable temperature by Ib:	**30,3 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**87,1 °C**
Total derating coefficient:	**0,82**	Ib<=In<=Iz Coordination:	**5,81<=80<=82 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**13 kA**	Ip1ft:	**4,76 kA**
Ikv max downstream:	**3,99 kA**	Ik1ftmin:	**1,34 kA**
Imagmax (maximum magnetic):	**1339 A**	Ik1fnmax:	**1,82 kA**
Ik max:	**3,99 kA**	Ip1fn:	**4,94 kA**
Ip:	**5,54 kA**	Ik1fnmin:	**1,36 kA**
Ik min:	**2,99 kA**	Zk min:	**57,9 mohm**
Ik2ftmax:	**3,53 kA**	Zk max:	**73,3 mohm**
Ip2ft:	**5,33 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**2,61 kA**	Zk2 max:	**0 mohm**
Ik2max:	**3,45 kA**	Zk1ftmin:	**129,2 mohm**
Ip2:	**5,25 kA**	Zk1ftmax:	**163,9 mohm**
Ik2min:	**2,59 kA**	Zk1fnmin:	**126,9 mohm**
Ik1ftmax:	**1,79 kA**	Zk1fnmx:	**161,6 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**NG125N-D**		
Protection type:	**MT**		
Protection nominal current.:	**80 A**	Neutral thermic trip setting:	**80 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**1120 A**
Release curve:	**D**	Breaking capacity BC:	**25 kA**
Thermic trip setting:	**80 A**	BC > Upstream short-circuit I max:	**25 >= 13 kA**
Magnetic trip setting:	**1120 A**	Standard:	**Icu - EN 60947**
Magnetic rel. < I max. mag:	**1120 < 1339 A**		

Identification

Unit ref-mark:	**+CABINA GEN - BT.QESIC-S2-QESIC-S2 C-07**
Denomination 1:	QESC2
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**0,21 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**0,21 kW**	Input frequency:	**50 Hz**
Reactive power:	**0,102 kVAR**	Transferred upstream power:	**0,233 kVA**
Load rated current Ib:	**0,673 A**	Total power:	**22,2 kVA**
Power factor:	**0,9**	Available power:	**21,9 kVA**
Rated voltage:	**400 V**		

Cables

Formation:	**5G16**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FTG18OM16 0,6/1 kV B2ca-s1a,d1,a1		
Insulating (line+neutral+PE):	**EPR**	K^2S^2 phase conductor:	**$5,235*10^6 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$5,235*10^6 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$5,235*10^6 A^2s$**
Line length:	**85 m**	Partial voltage drop by Ib:	**0,068 %**
Iz withstand current:	**100 A**	Total voltage drop by Ib:	**0,32 %**
Neutral withstand current:	**100 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**1 (Number of circuits: 1)**	Cable temperature by Ib:	**30 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**36,1 °C**
Total derating coefficient:	**1**	Ib<=In<=Iz Coordination:	**0,673<=32<=100 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**13 kA**	Ip1ft:	**4,02 kA**
Ikv max downstream:	**1,96 kA**	Ik1ftmin:	**0,691 kA**
Imagmax (maximum magnetic):	**690,9 A**	Ik1fnmax:	**0,934 kA**
Ik max:	**1,96 kA**	Ip1fn:	**4,17 kA**
Ip:	**5 kA**	Ik1fnmin:	**0,695 kA**
Ik min:	**1,46 kA**	Zk min:	**117,8 mohm**
Ik2ftmax:	**1,73 kA**	Zk max:	**150 mohm**
Ip2ft:	**4,78 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**1,28 kA**	Zk2 max:	**0 mohm**
Ik2max:	**1,7 kA**	Zk1ftmin:	**249,2 mohm**
Ip2:	**4,7 kA**	Zk1ftmax:	**317,5 mohm**
Ik2min:	**1,27 kA**	Zk1fnmin:	**247,1 mohm**
Ik1ftmax:	**0,927 kA**	Zk1fnmx:	**315,5 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60H-D - 32A**		
Protection type:	**MT**		
Protection nominal current.:	**32 A**	Neutral thermic trip setting:	**32 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**448 A**
Release curve:	**D**	Breaking capacity BC:	**15 kA**
Thermic trip setting:	**32 A**	BC > Upstream short-circuit I max:	**15 >= 13 kA**
Magnetic trip setting:	**448 A**	Standard:	**Icu - EN 60947**
Magnetic rel. < I max. mag:	**448 < 690,9 A**		

Identification

Unit ref-mark:	**+CABINA GEN - BT.QESIC-S2-QESIC-S2 C-08**
Denomination 1:	QPALCO
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**2,1 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**2,1 kW**	Input frequency:	**50 Hz**
Reactive power:	**1,02 kVAR**	Transferred upstream power:	**2,33 kVA**
Load rated current Ib:	**3,37 A**	Total power:	**22,2 kVA**
Power factor:	**0,9**	Available power:	**19,8 kVA**
Rated voltage:	**400 V**		

Cables

Formation:	**5G10**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FTG18OM16 0,6/1 kV B2ca-s1a,d1,a1		
Insulating (line+neutral+PE):	**EPR**	K^2S^2 phase conductor:	**$2,045*10^6 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$2,045*10^6 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$2,045*10^6 A^2s$**
Line length:	**85 m**	Partial voltage drop by Ib:	**0,277 %**
Iz withstand current:	**75 A**	Total voltage drop by Ib:	**0,563 %**
Neutral withstand current:	**75 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**1 (Number of circuits: 1)**	Cable temperature by Ib:	**30,1 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**40,9 °C**
Total derating coefficient:	**1**	Ib<=In<=Iz Coordination:	**3,37<=32<=75 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**13 kA**	Ip1ft:	**4,02 kA**
Ikv max downstream:	**1,3 kA**	Ik1ftmin:	**0,467 kA**
Imagmax (maximum magnetic):	**466,7 A**	Ik1fnmax:	**0,63 kA**
Ik max:	**1,3 kA**	Ip1fn:	**4,17 kA**
Ip:	**5 kA**	Ik1fnmin:	**0,469 kA**
Ik min:	**0,97 kA**	Zk min:	**177,2 mohm**
Ik2ftmax:	**1,15 kA**	Zk max:	**226,2 mohm**
Ip2ft:	**4,78 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**0,851 kA**	Zk2 max:	**0 mohm**
Ik2max:	**1,13 kA**	Zk1ftmin:	**368,1 mohm**
Ip2:	**4,7 kA**	Zk1ftmax:	**470,1 mohm**
Ik2min:	**0,84 kA**	Zk1fnmin:	**366,3 mohm**
Ik1ftmax:	**0,627 kA**	Zk1fnmx:	**468,2 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60H-D - 32A**		
Protection type:	**MT**		
Protection nominal current.:	**32 A**	Neutral thermic trip setting:	**32 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**448 A**
Release curve:	**D**	Breaking capacity BC:	**15 kA**
Thermic trip setting:	**32 A**	BC > Upstream short-circuit I max:	**15 >= 13 kA**
Magnetic trip setting:	**448 A**	Standard:	**Icu - EN 60947**
Magnetic rel. < I max. mag:	**448 < 466,7 A**		

Identification

Unit ref-mark:	**+CABINA GEN - BT.QESIC-S2-QESIC-S2 C-09**
Denomination 1:	Protezione trafo 24V
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution preferential**		
Rated power:	**0,107 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**L2-N**
Power dimensioning:	**0,107 kW**	Input frequency:	**50 Hz**
Reactive power:	**0,106 kVAR**	Transferred upstream power:	**0,151 kVA**
Load rated current Ib:	**0,653 A**	Total power:	**2,31 kVA**
Power factor:	**0,711**	Available power:	**2,16 kVA**
Rated voltage:	**231 V**		

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**5,28 kA**	Ip1fn:	**2,73 kA**
Ikv max downstream:	**5,28 kA**	Ik1fnmin:	**4,01 kA**
Imagmax (maximum magnetic):	**3802 A**	Zk1ftmin:	**46,9 mohm**
Ik1ftmax:	**4,92 kA**	Zk1ftmax:	**57,7 mohm**
Ip1ft:	**2,62 kA**	Zk1fnmin:	**43,7 mohm**
Ik1ftmin:	**3,8 kA**	Zk1fnmx:	**54,7 mohm**
Ik1fnmax:	**5,28 kA**		

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60N-C - 10A**		
Protection type:	**MT**		
Protection nominal current.:	**10 A**	Magnetic rel. < I max. mag:	**100 < 3802 A**
Number of poles:	**2**	Breaking capacity BC:	**20 kA**
Release curve:	**C**	BC > Upstream short-circuit I max:	**20 >= 5,28 kA**
Thermic trip setting:	**10 A**	Standard:	**Icu - EN 60947**
Magnetic trip setting:	**100 A**		

Identification

Unit ref-mark:	**+CABINA GEN - BT.QESIC-S2-QESIC-S2 C-11**
Denomination 1:	Circuito Illuminazione
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic terminal**		
Rated power:	**0,15 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**L2-N**
Power dimensioning:	**0,15 kW**	Input frequency:	**50 Hz**
Reactive power:	**0,073 kVAR**	Transferred upstream power:	**0,167 kVA**
Load rated current Ib:	**0,722 A**	Total power:	**2,31 kVA**
Power factor:	**0,9**	Available power:	**2,14 kVA**
Rated voltage:	**231 V**	Number of loads per unit:	**1**

Cables

Formation:	**3G2.5**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FTG18OM16 0,6/1 kV B2ca-s1a,d1,a1		
Insulating (line+neutral+PE):	**EPR**	K^2S^2 phase conductor:	**$1,278*10^5 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$1,278*10^5 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$1,278*10^5 A^2s$**
Line length:	**10 m**	Partial voltage drop by Ib:	**0,057 %**
Iz withstand current:	**36 A**	Total voltage drop by Ib:	**0,309 %**
Neutral withstand current:	**36 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**1 (Number of circuits: 1)**	Cable temperature by Ib:	**30 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**34,6 °C**
Total derating coefficient:	**1**	Ib<=In<=Iz Coordination:	**0,722<=10<=36 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**5,28 kA**	Ip1fn:	**2,73 kA**
Ikv max downstream:	**1,15 kA**	Ik1fnmin:	**0,855 kA**
Imagmax (maximum magnetic):	**848,5 A**	Zk1ftmin:	**202,8 mohm**
Ik1ftmax:	**1,14 kA**	Zk1ftmax:	**258,6 mohm**
Ip1ft:	**2,62 kA**	Zk1fnmin:	**200,9 mohm**
Ik1ftmin:	**0,848 kA**	Zk1fnmx:	**256,6 mohm**
Ik1fnmax:	**1,15 kA**		

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60N-C - 10A + Vigi iC60 A 0,03 A**		
Protection type:	**MT+D**		
Protection nominal current.:	**10 A**	Magnetic rel. < I max. mag:	**100 < 848,5 A**
Number of poles:	**2**	Residual trip setting:	**0,03 A**
Release curve:	**C**	Breaking capacity BC:	**20 kA**
Operational class:	**A**	BC > Upstream short-circuit I max:	**20 >= 5,28 kA**
Thermic trip setting:	**10 A**	Standard:	**Icu - EN 60947**
Magnetic trip setting:	**100 A**		

Identification

Unit ref-mark:	**+CABINA GEN - BT.QESIC-S2-QESIC-S2 C-12**
Denomination 1:	Illuminazione Vie Esodo
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic terminal**		
Rated power:	**0,1 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**L2-N**
Power dimensioning:	**0,1 kW**	Input frequency:	**50 Hz**
Reactive power:	**0,048 kVAR**	Transferred upstream power:	**0,111 kVA**
Load rated current Ib:	**0,481 A**	Total power:	**2,31 kVA**
Power factor:	**0,9**	Available power:	**2,2 kVA**
Rated voltage:	**231 V**	Number of loads per unit:	**1**

Cables

Formation:	**3G2.5**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FTG18OM16 0,6/1 kV B2ca-s1a,d1,a1		
Insulating (line+neutral+PE):	**EPR**	K^2S^2 phase conductor:	**$1,278*10^5 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$1,278*10^5 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$1,278*10^5 A^2s$**
Line length:	**10 m**	Partial voltage drop by Ib:	**0,038 %**
Iz withstand current:	**36 A**	Total voltage drop by Ib:	**0,29 %**
Neutral withstand current:	**36 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**1 (Number of circuits: 1)**	Cable temperature by Ib:	**30 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**34,6 °C**
Total derating coefficient:	**1**	Ib<=In<=Iz Coordination:	**0,481<=10<=36 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**5,28 kA**	Ip1fn:	**2,73 kA**
Ikv max downstream:	**1,15 kA**	Ik1fnmin:	**0,855 kA**
Imagmax (maximum magnetic):	**848,5 A**	Zk1ftmin:	**202,8 mohm**
Ik1ftmax:	**1,14 kA**	Zk1ftmax:	**258,6 mohm**
Ip1ft:	**2,62 kA**	Zk1fnmin:	**200,9 mohm**
Ik1ftmin:	**0,848 kA**	Zk1fnmx:	**256,6 mohm**
Ik1fnmax:	**1,15 kA**		

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60N-C - 10A + Vigi iC60 A 0,03 A**		
Protection type:	**MT+D**		
Protection nominal current.:	**10 A**	Magnetic rel. < I max. mag:	**100 < 848,5 A**
Number of poles:	**2**	Residual trip setting:	**0,03 A**
Release curve:	**C**	Breaking capacity BC:	**20 kA**
Operational class:	**A**	BC > Upstream short-circuit I max:	**20 >= 5,28 kA**
Thermic trip setting:	**10 A**	Standard:	**Icu - EN 60947**
Magnetic trip setting:	**100 A**		

Identification

Unit ref-mark:	**+CABINA GEN - BT.QESIC-S2-QESIC-S2 C-13**
Denomination 1:	Circuito FM
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic terminal**		
Rated power:	**1 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**L1-N**
Power dimensioning:	**1 kW**	Input frequency:	**50 Hz**
Reactive power:	**0,484 kVAR**	Transferred upstream power:	**1,11 kVA**
Load rated current Ib:	**4,81 A**	Total power:	**3,7 kVA**
Power factor:	**0,9**	Available power:	**2,58 kVA**
Rated voltage:	**231 V**	Number of loads per unit:	**1**

Cables

Formation:	**3G2.5**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FTG18OM16 0,6/1 kV B2ca-s1a,d1,a1		
Insulating (line+neutral+PE):	**EPR**	K^2S^2 phase conductor:	**$1,278*10^5 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$1,278*10^5 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$1,278*10^5 A^2s$**
Line length:	**10 m**	Partial voltage drop by Ib:	**0,383 %**
Iz withstand current:	**36 A**	Total voltage drop by Ib:	**0,67 %**
Neutral withstand current:	**36 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**1 (Number of circuits: 1)**	Cable temperature by Ib:	**31,1 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**41,9 °C**
Total derating coefficient:	**1**	Ib<=In<=Iz Coordination:	**4,81<=16<=36 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**5,28 kA**	Ip1fn:	**3,13 kA**
Ikv max downstream:	**1,15 kA**	Ik1fnmin:	**0,855 kA**
Imagmax (maximum magnetic):	**848,5 A**	Zk1ftmin:	**202,8 mohm**
Ik1ftmax:	**1,14 kA**	Zk1ftmax:	**258,6 mohm**
Ip1ft:	**3,02 kA**	Zk1fnmin:	**200,9 mohm**
Ik1ftmin:	**0,848 kA**	Zk1fnmx:	**256,6 mohm**
Ik1fnmax:	**1,15 kA**		

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60N-C - 16A + Vigi iC60 A 0,03 A**		
Protection type:	**MT+D**		
Protection nominal current.:	**16 A**	Magnetic rel. < I max. mag:	**160 < 848,5 A**
Number of poles:	**2**	Residual trip setting:	**0,03 A**
Release curve:	**C**	Breaking capacity BC:	**20 kA**
Operational class:	**A**	BC > Upstream short-circuit I max:	**20 >= 5,28 kA**
Thermic trip setting:	**16 A**	Standard:	**Icu - EN 60947**
Magnetic trip setting:	**160 A**		

Identification

Unit ref-mark:	**+CABINA GEN - BT.QESIC-S2-QESIC-S2 C-14**
Denomination 1:	Riserva
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**0 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**0 kW**	Input frequency:	**50 Hz**
Reactive power:	**0 kVAR**	Transferred upstream power:	**0 kVA**
Load rated current Ib:	**0 A**	Total power:	**11,1 kVA**
Power factor:	**0,9**	Available power:	**11,1 kVA**
Rated voltage:	**400 V**		

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**13 kA**	Ip1ft:	**2,74 kA**
Ikv max downstream:	**13 kA**	Ik1ftmin:	**3,8 kA**
Imagmax (maximum magnetic):	**3802 A**	Ik1fnmax:	**5,28 kA**
Ik max:	**13 kA**	Ip1fn:	**2,89 kA**
Ip:	**3,29 kA**	Ik1fnmin:	**4,01 kA**
Ik min:	**10,4 kA**	Zk min:	**17,8 mohm**
Ik2ftmax:	**11,7 kA**	Zk max:	**21,2 mohm**
Ip2ft:	**3,2 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**8,77 kA**	Zk2 max:	**0 mohm**
Ik2max:	**11,3 kA**	Zk1ftmin:	**46,9 mohm**
Ip2:	**3,17 kA**	Zk1ftmax:	**57,7 mohm**
Ik2min:	**8,98 kA**	Zk1fnmin:	**43,7 mohm**
Ik1ftmax:	**4,92 kA**	Zk1fnmx:	**54,6 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**NG125L-D + Vigi NG125 A SI 0,03 A**		
Protection type:	**MT+D**		
Protection nominal current.:	**16 A**	Neutral thermic trip setting:	**16 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**224 A**
Release curve:	**D**	Residual trip setting:	**0,03 A**
Operational class:	**A**	Breaking capacity BC:	**50 kA**
Thermic trip setting:	**16 A**	BC > Upstream short-circuit I max:	**50 >= 13 kA**
Magnetic trip setting:	**224 A**	Standard:	**Icu - EN 60947**
Magnetic rel. < I max. mag:	**224 < 3802 A**		

Identification

Unit ref-mark:	**+CABINA GEN - BT.QESIC-S2-QESIC-S2 C-15**
Denomination 1:	Riserva
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**0 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**L1-N**
Power dimensioning:	**0 kW**	Input frequency:	**50 Hz**
Reactive power:	**0 kVAR**	Transferred upstream power:	**0 kVA**
Load rated current Ib:	**0 A**	Total power:	**3,7 kVA**
Power factor:	**0,9**	Available power:	**3,7 kVA**
Rated voltage:	**231 V**		

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**5,28 kA**	Ip1fn:	**3,13 kA**
Ikv max downstream:	**5,28 kA**	Ik1fnmin:	**4,01 kA**
Imagmax (maximum magnetic):	**3802 A**	Zk1ftmin:	**46,9 mohm**
Ik1ftmax:	**4,92 kA**	Zk1ftmax:	**57,7 mohm**
Ip1ft:	**3,02 kA**	Zk1fnmin:	**43,7 mohm**
Ik1ftmin:	**3,8 kA**	Zk1fnmx:	**54,7 mohm**
Ik1fnmax:	**5,28 kA**		

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60N-C - 16A + Vigi iC60 A 0,03 A**		
Protection type:	**MT+D**		
Protection nominal current.:	**16 A**	Magnetic rel. < I max. mag:	**160 < 3802 A**
Number of poles:	**2**	Residual trip setting:	**0,03 A**
Release curve:	**C**	Breaking capacity BC:	**20 kA**
Operational class:	**A**	BC > Upstream short-circuit I max:	**20 >= 5,28 kA**
Thermic trip setting:	**16 A**	Standard:	**Icu - EN 60947**
Magnetic trip setting:	**160 A**		

Identification

Unit ref-mark:	**+CABINA GEN - BT.QESIC-S2-AUX TR**
Denomination 1:	Trasformatore
Denomination 2:	230/24Vac
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution unit with transformer preferential**		
Rated power:	**0,107 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**L2-N**
Power dimensioning:	**0,107 kW**	Input frequency:	**50 Hz**
Reactive power:	**0,106 kVAR**	Transferred upstream power:	**0,151 kVA**
Load rated current Ib:	**0,653 A**	Total power:	**0,383 kVA**
Power factor:	**0,711**	Available power:	**0,233 kVA**
Rated voltage:	**231 V**		

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**5,28 kA**	Ip1fn:	**2,73 kA**
Ikv max downstream:	**1,51 kA**	Ik1fnmin:	**1,32 kA**
Imagmax (maximum magnetic):	**1319 A**	Zk1fnmin:	**15,9 mohm**
Ik1fnmax:	**1,51 kA**	Zk1fnmx:	**17,3 mohm**

Transformer

Transformer type:	**Normal**	Transformer short circuit losses. Pkr:	**60 W**
Winding connections:	**Monofase**	Transformer short-circuit voltage	**6 %**
Ecocompatible design:	UE N.548/2014 (dal 07/2021)	Transformer no-load losses Pv0:	**7,2 W**
Transformer rated power:	**2 kVA**	Transformer no-load currents Iv0:	**2,9 %**
Primary voltage:	**231 V**	Ilr/In ratio:	**10,5**
No-load secondary voltage:	**24 V**	Insulation type:	**In resin**
Windings ratio N1/N2:	**9,625**		

Identification

Unit ref-mark:	**+CABINA GEN - BT.QESIC-S2-QESIC-S2 C-10**
Denomination 1:	AUX 24V
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic preferential terminal**		
Rated power:	**0,1 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**L2-N**
Power dimensioning:	**0,1 kW**	Input frequency:	**50 Hz**
Reactive power:	**0,048 kVAR**	Transferred upstream power:	**0,111 kVA**
Load rated current Ib:	**4,63 A**	Total power:	**0,384 kVA**
Power factor:	**0,9**	Available power:	**0,273 kVA**
Rated voltage:	**24 V**	Number of loads per unit:	**1**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**1,51 kA**	Ip1fn:	**2,54 kA**
Ikv max downstream:	**1,51 kA**	Ik1fnmin:	**1,32 kA**
Imagmax (maximum magnetic):	**1319 A**	Zk1fnmin:	**15,9 mohm**
Ik1fnmax:	**1,51 kA**	Zk1fnmx:	**17,3 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60N-C - 16A**		
Protection type:	**MT**		
Protection nominal current.:	**16 A**	Magnetic rel. < I max. mag:	**160 < 1319 A**
Number of poles:	**2**	Breaking capacity BC:	**6 kA**
Release curve:	**C**	BC > Upstream short-circuit I max:	**6 >= 1,51 kA**
Thermic trip setting:	**16 A**	Standard:	**Icn - EN 60898**
Magnetic trip setting:	**160 A**		

Identification

Unit ref-mark:	**+QUADRI SECONDARI.QELS-N-QELS-N C-00**
Denomination 1:	
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**79,2 kW**	Distribution system:	**TN-S**
Coefficient:	**0,5**	Phases link:	**3P+N**
Power dimensioning:	**39,6 kW**	Input frequency:	**50 Hz**
Reactive power:	**19,3 kVAR**	Transferred upstream power:	**44 kVA**
Load rated current Ib:	**63,7 A**	Total power:	**121,2 kVA**
Power factor:	**0,899**	Available power:	**77,2 kVA**
Rated voltage:	**400 V**		

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**14,1 kA**	Ip1ft:	**7,37 kA**
Ikv max downstream:	**14,1 kA**	Ik1ftmin:	**5,12 kA**
Imagmax (maximum magnetic):	**5122 A**	Ik1fnmax:	**7,2 kA**
Ik max:	**14,1 kA**	Ip1fn:	**7,83 kA**
Ip:	**9,22 kA**	Ik1fnmin:	**5,62 kA**
Ik min:	**11,6 kA**	Zk min:	**16,3 mohm**
Ik2ftmax:	**12,9 kA**	Zk max:	**18,9 mohm**
Ip2ft:	**8,84 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**9,82 kA**	Zk2 max:	**0 mohm**
Ik2max:	**12,2 kA**	Zk1ftmin:	**36,1 mohm**
Ip2:	**8,65 kA**	Zk1ftmax:	**42,8 mohm**
Ik2min:	**10,1 kA**	Zk1fnmin:	**32 mohm**
Ik1ftmax:	**6,4 kA**	Zk1fnmx:	**38,9 mohm**

Protection

Protection manufacturer:	**ABB**		
Protection ref-mark:	**Tmax T5D**		
Protection nominal current.:	**400 A**	Overload current Ins:	**175 A**
Number of poles:	**4**	Breaking capacity BC:	**n.d.**

Identification

Unit ref-mark:	**+QUADRI SECONDARI.QELS-N-QELS-N C-01**
Denomination 1:	Riserva
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**0 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**0 kW**	Input frequency:	**50 Hz**
Reactive power:	**0 kVAR**	Transferred upstream power:	**0 kVA**
Load rated current Ib:	**0 A**	Total power:	**34,6 kVA**
Power factor:	**0,9**	Available power:	**34,6 kVA**
Rated voltage:	**400 V**		

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**14,1 kA**	Ip1ft:	**4,21 kA**
Ikv max downstream:	**14,1 kA**	Ik1ftmin:	**5,12 kA**
Imagmax (maximum magnetic):	**5122 A**	Ik1fnmax:	**7,23 kA**
Ik max:	**14,1 kA**	Ip1fn:	**4,47 kA**
Ip:	**5,39 kA**	Ik1fnmin:	**5,64 kA**
Ik min:	**11,6 kA**	Zk min:	**16,3 mohm**
Ik2ftmax:	**12,9 kA**	Zk max:	**18,9 mohm**
Ip2ft:	**5,16 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**9,82 kA**	Zk2 max:	**0 mohm**
Ik2max:	**12,2 kA**	Zk1ftmin:	**36,1 mohm**
Ip2:	**5,04 kA**	Zk1ftmax:	**42,8 mohm**
Ik2min:	**10,1 kA**	Zk1fnmin:	**32 mohm**
Ik1ftmax:	**6,4 kA**	Zk1fnmx:	**38,9 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60H-D - 50A**		
Protection type:	**MT**		
Protection nominal current.:	**50 A**	Neutral thermic trip setting:	**50 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**700 A**
Release curve:	**D**	Breaking capacity BC:	**15 kA**
Thermic trip setting:	**50 A**	BC > Upstream short-circuit I max:	**15 >= 14,1 kA**
Magnetic trip setting:	**700 A**	Standard:	**Icu - EN 60947**
Magnetic rel. < I max. mag:	**700 < 5122 A**		

Identification

Unit ref-mark:	**+QUADRI SECONDARI.QELS-N-QELS-N C-02**
Denomination 1:	QEAF-N
Denomination 2:	Q.E. Atrio-Foyer
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**21,9 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**21,9 kW**	Input frequency:	**50 Hz**
Reactive power:	**10,6 kVAR**	Transferred upstream power:	**24,3 kVA**
Load rated current Ib:	**35,6 A**	Total power:	**55,4 kVA**
Power factor:	**0,899**	Available power:	**31,1 kVA**
Rated voltage:	**400 V**		

Cables

Formation:	**4x(1x70)+1G35**		
Type of lay:	13 - insul. single-core cables, armed or not armed on punched dridges		
Laying formation:	Coat on horizontal or vertical punched dridges (or not)		
Cable designation	FG16M16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**HEPR**	K^2S^2 phase conductor:	**$1,002*10^8 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$1,002*10^8 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$3,795*10^7 A^2s$**
Line length:	**40 m**	Partial voltage drop by Ib:	**0,221 %**
Iz withstand current:	**228,8 A**	Total voltage drop by Ib:	**0,655 %**
Neutral withstand current:	**228,8 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**0,82 (Number of circuits: 3)**	Cable temperature by Ib:	**31,5 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**37,3 °C**
Total derating coefficient:	**0,82**	Ib<=In<=Iz Coordination:	**35,6<=80<=228,8 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**14,1 kA**	Ip1ft:	**4,98 kA**
Ikv max downstream:	**8,57 kA**	Ik1ftmin:	**2,61 kA**
Imagmax (maximum magnetic):	**2613 A**	Ik1fnmax:	**4,27 kA**
Ik max:	**8,57 kA**	Ip1fn:	**5,29 kA**
Ip:	**5,92 kA**	Ik1fnmin:	**3,28 kA**
Ik min:	**6,77 kA**	Zk min:	**26,9 mohm**
Ik2ftmax:	**7,74 kA**	Zk max:	**32,4 mohm**
Ip2ft:	**5,71 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**5,75 kA**	Zk2 max:	**0 mohm**
Ik2max:	**7,42 kA**	Zk1ftmin:	**67,9 mohm**
Ip2:	**5,6 kA**	Zk1ftmax:	**84 mohm**
Ik2min:	**5,86 kA**	Zk1fnmin:	**54 mohm**
Ik1ftmax:	**3,4 kA**	Zk1fnmx:	**66,8 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**NG125N-D**		
Protection type:	**MT**		
Protection nominal current.:	**80 A**	Neutral thermic trip setting:	**80 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**1120 A**
Release curve:	**D**	Breaking capacity BC:	**25 kA**
Thermic trip setting:	**80 A**	BC > Upstream short-circuit I max:	**25 >= 14,1 kA**
Magnetic trip setting:	**1120 A**	Standard:	**Icu - EN 60947**
Magnetic rel. < I max. mag:	**1120 < 2613 A**		

Identification

Unit ref-mark:	**+QUADRI SECONDARI.QELS-N-QELS-N C-03**
Denomination 1:	QERS-N
Denomination 2:	Q.E. Regia Sale
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**3,41 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**3,41 kW**	Input frequency:	**50 Hz**
Reactive power:	**1,7 kVAR**	Transferred upstream power:	**3,81 kVA**
Load rated current Ib:	**5,77 A**	Total power:	**22,2 kVA**
Power factor:	**0,894**	Available power:	**18,4 kVA**
Rated voltage:	**400 V**		

Cables

Formation:	**5G6**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FG16OM16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**PVC**	K^2S^2 phase conductor:	**$4{,}761*10^5 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$4{,}761*10^5 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$4{,}761*10^5 A^2s$**
Line length:	**15 m**	Partial voltage drop by Ib:	**0,14 %**
Iz withstand current:	**43 A**	Total voltage drop by Ib:	**0,574 %**
Neutral withstand current:	**43 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**1 (Number of circuits: 1)**	Cable temperature by Ib:	**30,7 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**52,2 °C**
Total derating coefficient:	**1**	Ib<=In<=Iz Coordination:	**5,77<=32<=43 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**14,1 kA**	Ip1ft:	**4,21 kA**
Ikv max downstream:	**3,72 kA**	Ik1ftmin:	**1,39 kA**
Imagmax (maximum magnetic):	**1394 A**	Ik1fnmax:	**1,81 kA**
Ik max:	**3,72 kA**	Ip1fn:	**4,47 kA**
Ip:	**5,39 kA**	Ik1fnmin:	**1,42 kA**
Ik min:	**2,93 kA**	Zk min:	**62,2 mohm**
Ik2ftmax:	**3,29 kA**	Zk max:	**74,9 mohm**
Ip2ft:	**5,16 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**2,56 kA**	Zk2 max:	**0 mohm**
Ik2max:	**3,22 kA**	Zk1ftmin:	**130,2 mohm**
Ip2:	**5,04 kA**	Zk1ftmax:	**157,4 mohm**
Ik2min:	**2,54 kA**	Zk1fnmin:	**127,2 mohm**
Ik1ftmax:	**1,77 kA**	Zk1fnmx:	**154,1 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60H-D - 32A**		
Protection type:	**MT**		
Protection nominal current.:	**32 A**	Neutral thermic trip setting:	**32 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**448 A**
Release curve:	**D**	Breaking capacity BC:	**15 kA**
Thermic trip setting:	**32 A**	BC > Upstream short-circuit I max:	**15 >= 14,1 kA**
Magnetic trip setting:	**448 A**	Standard:	**Icu - EN 60947**
Magnetic rel. < I max. mag:	**448 < 1394 A**		

Identification

Unit ref-mark:	**+QUADRI SECONDARI.QELS-N-QELS-N C-04**
Denomination 1:	QESMTR-N
Denomination 2:	Q.E. Servizi MT Ricezione
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**2,1 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**2,1 kW**	Input frequency:	**50 Hz**
Reactive power:	**1,06 kVAR**	Transferred upstream power:	**2,36 kVA**
Load rated current Ib:	**3,7 A**	Total power:	**34,6 kVA**
Power factor:	**0,894**	Available power:	**32,3 kVA**
Rated voltage:	**400 V**		

Cables

Formation:	**5G16**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FG16OM16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**PVC**	K^2S^2 phase conductor:	**3,386*10 ^{6}A²s**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**3,386*10 ^{6}A²s**
Conductor material:	**COPPER**	K^2S^2 PE:	**3,386*10 ^{6}A²s**
Line length:	**45 m**	Partial voltage drop by Ib:	**0,11 %**
Iz withstand current:	**80 A**	Total voltage drop by Ib:	**0,545 %**
Neutral withstand current:	**80 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**1 (Number of circuits: 1)**	Cable temperature by Ib:	**30,1 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**45,6 °C**
Total derating coefficient:	**1**	Ib<=In<=Iz Coordination:	**3,7<=50<=80 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**14,1 kA**	Ip1ft:	**4,21 kA**
Ikv max downstream:	**3,42 kA**	Ik1ftmin:	**1,29 kA**
Imagmax (maximum magnetic):	**1292 A**	Ik1fnmax:	**1,67 kA**
Ik max:	**3,42 kA**	Ip1fn:	**4,47 kA**
Ip:	**5,39 kA**	Ik1fnmin:	**1,32 kA**
Ik min:	**2,7 kA**	Zk min:	**67,5 mohm**
Ik2ftmax:	**3,04 kA**	Zk max:	**81,2 mohm**
Ip2ft:	**5,16 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**2,36 kA**	Zk2 max:	**0 mohm**
Ik2max:	**2,96 kA**	Zk1ftmin:	**140,7 mohm**
Ip2:	**5,04 kA**	Zk1ftmax:	**169,8 mohm**
Ik2min:	**2,34 kA**	Zk1fnmin:	**137,5 mohm**
Ik1ftmax:	**1,64 kA**	Zk1fnmx:	**166,3 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60H-D - 50A**		
Protection type:	**MT**		
Protection nominal current.:	**50 A**	Neutral thermic trip setting:	**50 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**700 A**
Release curve:	**D**	Breaking capacity BC:	**15 kA**
Thermic trip setting:	**50 A**	BC > Upstream short-circuit I max:	**15 >= 14,1 kA**
Magnetic trip setting:	**700 A**	Standard:	**Icu - EN 60947**
Magnetic rel. < I max. mag:	**700 < 1292 A**		

Identification

Unit ref-mark:	**+QUADRI SECONDARI.QELS-N-QELS-N C-05**
Denomination 1:	QRTS-N
Denomination 2:	Q.E. Regia Teatrino Sud
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**7,61 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**7,61 kW**	Input frequency:	**50 Hz**
Reactive power:	**3,74 kVAR**	Transferred upstream power:	**8,47 kVA**
Load rated current Ib:	**12,6 A**	Total power:	**34,6 kVA**
Power factor:	**0,897**	Available power:	**26,2 kVA**
Rated voltage:	**400 V**		

Cables

Formation:	**5G16**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FG16OM16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**PVC**	K^2S^2 phase conductor:	**$3,386*10^6 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$3,386*10^6 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$3,386*10^6 A^2s$**
Line length:	**50 m**	Partial voltage drop by Ib:	**0,38 %**
Iz withstand current:	**80 A**	Total voltage drop by Ib:	**0,814 %**
Neutral withstand current:	**80 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**1 (Number of circuits: 1)**	Cable temperature by Ib:	**31 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**45,6 °C**
Total derating coefficient:	**1**	Ib<=In<=Iz Coordination:	**12,6<=50<=80 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**14,1 kA**	Ip1ft:	**4,21 kA**
Ikv max downstream:	**3,14 kA**	Ik1ftmin:	**1,19 kA**
Imagmax (maximum magnetic):	**1191 A**	Ik1fnmax:	**1,54 kA**
Ik max:	**3,14 kA**	Ip1fn:	**4,47 kA**
Ip:	**5,39 kA**	Ik1fnmin:	**1,21 kA**
Ik min:	**2,48 kA**	Zk min:	**73,5 mohm**
Ik2ftmax:	**2,79 kA**	Zk max:	**88,4 mohm**
Ip2ft:	**5,16 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**2,17 kA**	Zk2 max:	**0 mohm**
Ik2max:	**2,72 kA**	Zk1ftmin:	**152,7 mohm**
Ip2:	**5,04 kA**	Zk1ftmax:	**184,3 mohm**
Ik2min:	**2,15 kA**	Zk1fnmin:	**149,4 mohm**
Ik1ftmax:	**1,51 kA**	Zk1fnmx:	**180,6 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60H-D - 50A**		
Protection type:	**MT**		
Protection nominal current.:	**50 A**	Neutral thermic trip setting:	**50 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**700 A**
Release curve:	**D**	Breaking capacity BC:	**15 kA**
Thermic trip setting:	**50 A**	BC > Upstream short-circuit I max:	**15 >= 14,1 kA**
Magnetic trip setting:	**700 A**	Standard:	**Icu - EN 60947**
Magnetic rel. < I max. mag:	**700 < 1191 A**		

Identification

Unit ref-mark:	**+QUADRI SECONDARI.QELS-N-QELS-N C-06**
Denomination 1:	QEUF-N
Denomination 2:	Q.E. Ufficio
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**4,21 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**4,21 kW**	Input frequency:	**50 Hz**
Reactive power:	**2,09 kVAR**	Transferred upstream power:	**4,7 kVA**
Load rated current Ib:	**7,21 A**	Total power:	**34,6 kVA**
Power factor:	**0,895**	Available power:	**29,9 kVA**
Rated voltage:	**400 V**		

Cables

Formation:	**5G16**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FG16OM16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**PVC**	K^2S^2 phase conductor:	**$3,386*10^6 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$3,386*10^6 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$3,386*10^6 A^2s$**
Line length:	**90 m**	Partial voltage drop by Ib:	**0,416 %**
Iz withstand current:	**80 A**	Total voltage drop by Ib:	**0,85 %**
Neutral withstand current:	**80 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**1 (Number of circuits: 1)**	Cable temperature by Ib:	**30,3 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**45,6 °C**
Total derating coefficient:	**1**	Ib<=In<=Iz Coordination:	**7,21<=50<=80 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**14,1 kA**	Ip1ft:	**4,21 kA**
Ikv max downstream:	**1,9 kA**	Ik1ftmin:	**0,731 kA**
Imagmax (maximum magnetic):	**731,4 A**	Ik1fnmax:	**0,94 kA**
Ik max:	**1,9 kA**	Ip1fn:	**4,47 kA**
Ip:	**5,39 kA**	Ik1fnmin:	**0,741 kA**
Ik min:	**1,5 kA**	Zk min:	**121,6 mohm**
Ik2ftmax:	**1,68 kA**	Zk max:	**146,2 mohm**
Ip2ft:	**5,16 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**1,31 kA**	Zk2 max:	**0 mohm**
Ik2max:	**1,64 kA**	Zk1ftmin:	**249,1 mohm**
Ip2:	**5,04 kA**	Zk1ftmax:	**300 mohm**
Ik2min:	**1,3 kA**	Zk1fnmin:	**244,6 mohm**
Ik1ftmax:	**0,927 kA**	Zk1fnmx:	**294,7 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60H-D - 50A**		
Protection type:	**MT**		
Protection nominal current.:	**50 A**	Neutral thermic trip setting:	**50 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**700 A**
Release curve:	**D**	Breaking capacity BC:	**15 kA**
Thermic trip setting:	**50 A**	BC > Upstream short-circuit I max:	**15 >= 14,1 kA**
Magnetic trip setting:	**700 A**	Standard:	**Icu - EN 60947**
Magnetic rel. < I max. mag:	**700 < 731,4 A**		

Identification

Unit ref-mark:	**+QUADRI SECONDARI.QELS-N-QELS-N C-07**
Denomination 1:	UPS-C
Denomination 2:	Continuità
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**0 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**0 kW**	Input frequency:	**50 Hz**
Reactive power:	**0 kVAR**	Transferred upstream power:	**0 kVA**
Load rated current Ib:	**0 A**	Total power:	**43,6 kVA**
Power factor:	**0,9**	Available power:	**43,6 kVA**
Rated voltage:	**400 V**		

Cables

Formation:	**5G16**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FG16OM16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**PVC**	K^2S^2 phase conductor:	**3,386*10 ^{6}A²s**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**3,386*10 ^{6}A²s**
Conductor material:	**COPPER**	K^2S^2 PE:	**3,386*10 ^{6}A²s**
Line length:	**15 m**	Partial voltage drop by Ib:	**0 %**
Iz withstand current:	**80 A**	Total voltage drop by Ib:	**0,434 %**
Neutral withstand current:	**80 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**1 (Number of circuits: 1)**	Cable temperature by Ib:	**30 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**54,8 °C**
Total derating coefficient:	**1**	Ib<=In<=Iz Coordination:	**0<=63<=80 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**14,1 kA**	Ip1ft:	**7,33 kA**
Ikv max downstream:	**7,17 kA**	Ik1ftmin:	**2,61 kA**
Imagmax (maximum magnetic):	**2614 A**	Ik1fnmax:	**3,48 kA**
Ik max:	**7,17 kA**	Ip1fn:	**8,07 kA**
Ip:	**10,3 kA**	Ik1fnmin:	**2,71 kA**
Ik min:	**5,69 kA**	Zk min:	**32,2 mohm**
Ik2ftmax:	**6,41 kA**	Zk max:	**38,6 mohm**
Ip2ft:	**9,78 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**4,92 kA**	Zk2 max:	**0 mohm**
Ik2max:	**6,21 kA**	Zk1ftmin:	**69,5 mohm**
Ip2:	**9,54 kA**	Zk1ftmax:	**83,9 mohm**
Ik2min:	**4,92 kA**	Zk1fnmin:	**66,4 mohm**
Ik1ftmax:	**3,32 kA**	Zk1fnmx:	**80,9 mohm**

Protection

Protection manufacturer:	**ABB**		
Protection ref-mark:	**XT4H 160 + XT4 Ekip LS/I + XT1 RC Sel 200**		
Protection type:	**MT+D**		
Protection nominal current.:	**160 A**	Neutral thermic trip setting:	**63 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**630 A**
Operational class:	**AC**	Residual trip setting:	**1 A**
Thermic trip setting:	**63 A**	Breaking capacity BC:	**70 kA**
Magnetic trip setting:	**630 A**	BC > Upstream short-circuit I max:	**70 >= 14,1 kA**
Magnetic rel. < I max. mag:	**630 < 2614 A**	Standard:	**Icu - EN 60947**

Identification

Unit ref-mark:	**+QUADRI SECONDARI.QELS-N-QELS-N C-08**
Denomination 1:	QEVENT1
Denomination 2:	Q.E. Ventilazione 1
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic terminal**		
Rated power:	**3 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**3 kW**	Input frequency:	**50 Hz**
Reactive power:	**1,45 kVAR**	Transferred upstream power:	**3,33 kVA**
Load rated current Ib:	**4,81 A**	Total power:	**6,93 kVA**
Power factor:	**0,9**	Available power:	**3,59 kVA**
Rated voltage:	**400 V**	Number of loads per unit:	**1**

Cables

Formation:	**5G2.5**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FG16OM16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**PVC**	K^2S^2 phase conductor:	**$8,266*10^4 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$8,266*10^4 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$8,266*10^4 A^2s$**
Line length:	**70 m**	Partial voltage drop by Ib:	**1,26 %**
Iz withstand current:	**25 A**	Total voltage drop by Ib:	**1,7 %**
Neutral withstand current:	**25 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**1 (Number of circuits: 1)**	Cable temperature by Ib:	**31,5 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**36,4 °C**
Total derating coefficient:	**1**	Ib<=In<=Iz Coordination:	**4,81<=10<=25 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**14,1 kA**	Ip1ft:	**3,51 kA**
Ikv max downstream:	**0,406 kA**	Ik1ftmin:	**0,16 kA**
Imagmax (maximum magnetic):	**159,6 A**	Ik1fnmax:	**0,202 kA**
Ik max:	**0,406 kA**	Ip1fn:	**3,67 kA**
Ip:	**3,98 kA**	Ik1fnmin:	**0,16 kA**
Ik min:	**0,321 kA**	Zk min:	**568,8 mohm**
Ik2ftmax:	**0,358 kA**	Zk max:	**683,2 mohm**
Ip2ft:	**3,86 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**0,283 kA**	Zk2 max:	**0 mohm**
Ik2max:	**0,352 kA**	Zk1ftmin:	**1144 mohm**
Ip2:	**3,8 kA**	Zk1ftmax:	**1375 mohm**
Ik2min:	**0,278 kA**	Zk1fnmin:	**1142 mohm**
Ik1ftmax:	**0,202 kA**	Zk1fnmx:	**1372 mohm**

Protection

Protection manufacturer:	**ABB**		
Protection ref-mark:	**S 204 M-C**		
Protection type:	**MT**		
Protection nominal current.:	**10 A**	Neutral thermic trip setting:	**10 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**100 A**
Release curve:	**C**	Breaking capacity BC:	**15 kA**
Thermic trip setting:	**10 A**	BC > Upstream short-circuit I max:	**15 >= 14,1 kA**
Magnetic trip setting:	**100 A**	Standard:	**Icu - EN 60947**
Magnetic rel. < I max. mag:	**100 < 159,6 A**		

Identification

Unit ref-mark:	**+QUADRI SECONDARI.QELS-N-QELS-N C-09**
Denomination 1:	QEVENT2
Denomination 2:	Q.E. Ventilazione 2
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic terminal**		
Rated power:	**3 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**3 kW**	Input frequency:	**50 Hz**
Reactive power:	**1,45 kVAR**	Transferred upstream power:	**3,33 kVA**
Load rated current Ib:	**4,81 A**	Total power:	**6,93 kVA**
Power factor:	**0,9**	Available power:	**3,59 kVA**
Rated voltage:	**400 V**	Number of loads per unit:	**1**

Cables

Formation:	**5G2.5**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FG16OM16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**PVC**	K^2S^2 phase conductor:	**$8,266*10^4 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$8,266*10^4 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$8,266*10^4 A^2s$**
Line length:	**70 m**	Partial voltage drop by Ib:	**1,26 %**
Iz withstand current:	**25 A**	Total voltage drop by Ib:	**1,7 %**
Neutral withstand current:	**25 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**1 (Number of circuits: 1)**	Cable temperature by Ib:	**31,5 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**36,4 °C**
Total derating coefficient:	**1**	Ib<=In<=Iz Coordination:	**4,81<=10<=25 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**14,1 kA**	Ip1ft:	**3,51 kA**
Ikv max downstream:	**0,406 kA**	Ik1ftmin:	**0,16 kA**
Imagmax (maximum magnetic):	**159,6 A**	Ik1fnmax:	**0,202 kA**
Ik max:	**0,406 kA**	Ip1fn:	**3,67 kA**
Ip:	**3,98 kA**	Ik1fnmin:	**0,16 kA**
Ik min:	**0,321 kA**	Zk min:	**568,8 mohm**
Ik2ftmax:	**0,358 kA**	Zk max:	**683,2 mohm**
Ip2ft:	**3,86 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**0,283 kA**	Zk2 max:	**0 mohm**
Ik2max:	**0,352 kA**	Zk1ftmin:	**1144 mohm**
Ip2:	**3,8 kA**	Zk1ftmax:	**1375 mohm**
Ik2min:	**0,278 kA**	Zk1fnmin:	**1142 mohm**
Ik1ftmax:	**0,202 kA**	Zk1fnmx:	**1372 mohm**

Protection

Protection manufacturer:	**ABB**		
Protection ref-mark:	**S 204 M-C**		
Protection type:	**MT**		
Protection nominal current.:	**10 A**	Neutral thermic trip setting:	**10 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**100 A**
Release curve:	**C**	Breaking capacity BC:	**15 kA**
Thermic trip setting:	**10 A**	BC > Upstream short-circuit I max:	**15 >= 14,1 kA**
Magnetic trip setting:	**100 A**	Standard:	**Icu - EN 60947**
Magnetic rel. < I max. mag:	**100 < 159,6 A**		

Identification

Unit ref-mark:	**+QUADRI SECONDARI.QELS-N-QELS-N C-10**
Denomination 1:	QEVENT3
Denomination 2:	Q.E. Ventilazione 3
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic terminal**		
Rated power:	**11 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**11 kW**	Input frequency:	**50 Hz**
Reactive power:	**5,33 kVAR**	Transferred upstream power:	**12,2 kVA**
Load rated current Ib:	**17,6 A**	Total power:	**17,3 kVA**
Power factor:	**0,9**	Available power:	**5,1 kVA**
Rated voltage:	**400 V**	Number of loads per unit:	**1**

Cables

Formation:	**5G4**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FG16OM16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**PVC**	K^2S^2 phase conductor:	**$2,116*10^5 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$2,116*10^5 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$2,116*10^5 A^2s$**
Line length:	**70 m**	Partial voltage drop by Ib:	**2,88 %**
Iz withstand current:	**34 A**	Total voltage drop by Ib:	**3,31 %**
Neutral withstand current:	**34 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**1 (Number of circuits: 1)**	Cable temperature by Ib:	**40,8 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**51,6 °C**
Total derating coefficient:	**1**	Ib<=In<=Iz Coordination:	**17,6<=25<=34 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**14,1 kA**	Ip1ft:	**3,92 kA**
Ikv max downstream:	**0,647 kA**	Ik1ftmin:	**0,253 kA**
Imagmax (maximum magnetic):	**253,2 A**	Ik1fnmax:	**0,321 kA**
Ik max:	**0,647 kA**	Ip1fn:	**4,13 kA**
Ip:	**4,6 kA**	Ik1fnmin:	**0,254 kA**
Ik min:	**0,511 kA**	Zk min:	**357,2 mohm**
Ik2ftmax:	**0,571 kA**	Zk max:	**429,3 mohm**
Ip2ft:	**4,45 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**0,45 kA**	Zk2 max:	**0 mohm**
Ik2max:	**0,56 kA**	Zk1ftmin:	**720,8 mohm**
Ip2:	**4,38 kA**	Zk1ftmax:	**866,5 mohm**
Ik2min:	**0,443 kA**	Zk1fnmin:	**718,9 mohm**
Ik1ftmax:	**0,32 kA**	Zk1fnmx:	**864,5 mohm**

Protection

Protection manufacturer:	**ABB**		
Protection ref-mark:	**S 204 M-C**		
Protection type:	**MT**		
Protection nominal current.:	**25 A**	Neutral thermic trip setting:	**25 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**250 A**
Release curve:	**C**	Breaking capacity BC:	**15 kA**
Thermic trip setting:	**25 A**	BC > Upstream short-circuit I max:	**15 >= 14,1 kA**
Magnetic trip setting:	**250 A**	Standard:	**Icu - EN 60947**
Magnetic rel. < I max. mag:	**250 < 253,2 A**		

Identification

Unit ref-mark:	**+QUADRI SECONDARI.QELS-N-QELS-N C-11**
Denomination 1:	QEVENT4
Denomination 2:	Q.E. Ventilazione 4
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic terminal**		
Rated power:	**11 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**11 kW**	Input frequency:	**50 Hz**
Reactive power:	**5,33 kVAR**	Transferred upstream power:	**12,2 kVA**
Load rated current Ib:	**17,6 A**	Total power:	**17,3 kVA**
Power factor:	**0,9**	Available power:	**5,1 kVA**
Rated voltage:	**400 V**	Number of loads per unit:	**1**

Cables

Formation:	**5G4**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FG16OM16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**PVC**	K^2S^2 phase conductor:	**$2,116*10^5 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$2,116*10^5 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$2,116*10^5 A^2s$**
Line length:	**70 m**	Partial voltage drop by Ib:	**2,88 %**
Iz withstand current:	**34 A**	Total voltage drop by Ib:	**3,31 %**
Neutral withstand current:	**34 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**1 (Number of circuits: 1)**	Cable temperature by Ib:	**40,8 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**51,6 °C**
Total derating coefficient:	**1**	Ib<=In<=Iz Coordination:	**17,6<=25<=34 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**14,1 kA**	Ip1ft:	**3,92 kA**
Ikv max downstream:	**0,647 kA**	Ik1ftmin:	**0,253 kA**
Imagmax (maximum magnetic):	**253,2 A**	Ik1fnmax:	**0,321 kA**
Ik max:	**0,647 kA**	Ip1fn:	**4,13 kA**
Ip:	**4,6 kA**	Ik1fnmin:	**0,254 kA**
Ik min:	**0,511 kA**	Zk min:	**357,2 mohm**
Ik2ftmax:	**0,571 kA**	Zk max:	**429,3 mohm**
Ip2ft:	**4,45 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**0,45 kA**	Zk2 max:	**0 mohm**
Ik2max:	**0,56 kA**	Zk1ftmin:	**720,8 mohm**
Ip2:	**4,38 kA**	Zk1ftmax:	**866,5 mohm**
Ik2min:	**0,443 kA**	Zk1fnmin:	**718,9 mohm**
Ik1ftmax:	**0,32 kA**	Zk1fnmx:	**864,5 mohm**

Protection

Protection manufacturer:	**ABB**		
Protection ref-mark:	**S 204 M-C**		
Protection type:	**MT**		
Protection nominal current.:	**25 A**	Neutral thermic trip setting:	**25 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**250 A**
Release curve:	**C**	Breaking capacity BC:	**15 kA**
Thermic trip setting:	**25 A**	BC > Upstream short-circuit I max:	**15 >= 14,1 kA**
Magnetic trip setting:	**250 A**	Standard:	**Icu - EN 60947**
Magnetic rel. < I max. mag:	**250 < 253,2 A**		

Identification

Unit ref-mark:	**+QUADRI SECONDARI.QELS-N-QELS-N C-12**
Denomination 1:	RTDS
Denomination 2:	Rack TD Regia Sud
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic terminal**		
Rated power:	**3 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**3 kW**	Input frequency:	**50 Hz**
Reactive power:	**1,45 kVAR**	Transferred upstream power:	**3,33 kVA**
Load rated current Ib:	**4,81 A**	Total power:	**11,1 kVA**
Power factor:	**0,9**	Available power:	**7,75 kVA**
Rated voltage:	**400 V**	Number of loads per unit:	**1**

Cables

Formation:	**5G10**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FG16OM16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**HEPR**	K^2S^2 phase conductor:	**$2,045*10^6 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$2,045*10^6 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$2,045*10^6 A^2s$**
Line length:	**10 m**	Partial voltage drop by Ib:	**0,046 %**
Iz withstand current:	**75 A**	Total voltage drop by Ib:	**0,481 %**
Neutral withstand current:	**75 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**1 (Number of circuits: 1)**	Cable temperature by Ib:	**30,2 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**32,7 °C**
Total derating coefficient:	**1**	Ib<=In<=Iz Coordination:	**4,81<=16<=75 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**14,1 kA**	Ip1ft:	**3,76 kA**
Ikv max downstream:	**7,02 kA**	Ik1ftmin:	**2,47 kA**
Imagmax (maximum magnetic):	**2469 A**	Ik1fnmax:	**3,39 kA**
Ik max:	**7,02 kA**	Ip1fn:	**3,96 kA**
Ip:	**4,34 kA**	Ik1fnmin:	**2,55 kA**
Ik min:	**5,36 kA**	Zk min:	**32,9 mohm**
Ik2ftmax:	**6,26 kA**	Zk max:	**40,9 mohm**
Ip2ft:	**4,21 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**4,64 kA**	Zk2 max:	**0 mohm**
Ik2max:	**6,08 kA**	Zk1ftmin:	**71,1 mohm**
Ip2:	**4,14 kA**	Zk1ftmax:	**88,9 mohm**
Ik2min:	**4,64 kA**	Zk1fnmin:	**68 mohm**
Ik1ftmax:	**3,25 kA**	Zk1fnmx:	**85,9 mohm**

Protection

Protection manufacturer:	**ABB**		
Protection ref-mark:	**S 204 M-C + DDA 204 A 0.03**		
Protection type:	**MT+D**		
Protection nominal current.:	**16 A**	Neutral thermic trip setting:	**16 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**160 A**
Release curve:	**C**	Residual trip setting:	**0,03 A**
Operational class:	**A**	Breaking capacity BC:	**15 kA**
Thermic trip setting:	**16 A**	BC > Upstream short-circuit I max:	**15 >= 14,1 kA**
Magnetic trip setting:	**160 A**	Standard:	**Icu - EN 60947**
Magnetic rel. < I max. mag:	**160 < 2469 A**		

Identification

Unit ref-mark:	**+QUADRI SECONDARI.QELS-N-QELS-N C-13**
Denomination 1:	FM Ascensore 3
Denomination 2:	Lato Sud
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic terminal**		
Rated power:	**2,5 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**2,5 kW**	Input frequency:	**50 Hz**
Reactive power:	**1,21 kVAR**	Transferred upstream power:	**2,78 kVA**
Load rated current Ib:	**4,01 A**	Total power:	**11,1 kVA**
Power factor:	**0,9**	Available power:	**8,31 kVA**
Rated voltage:	**400 V**	Number of loads per unit:	**1**

Cables

Formation:	**5G4**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FG16OM16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**HEPR**	K^2S^2 phase conductor:	**$3,272*10^5 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$3,272*10^5 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$3,272*10^5 A^2s$**
Line length:	**30 m**	Partial voltage drop by Ib:	**0,298 %**
Iz withstand current:	**42 A**	Total voltage drop by Ib:	**0,732 %**
Neutral withstand current:	**42 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**1 (Number of circuits: 1)**	Cable temperature by Ib:	**30,5 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**38,7 °C**
Total derating coefficient:	**1**	Ib<=In<=Iz Coordination:	**4,01<=16<=42 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**14,1 kA**	Ip1ft:	**3,25 kA**
Ikv max downstream:	**1,44 kA**	Ik1ftmin:	**0,527 kA**
Imagmax (maximum magnetic):	**526,7 A**	Ik1fnmax:	**0,713 kA**
Ik max:	**1,44 kA**	Ip1fn:	**3,44 kA**
Ip:	**4,09 kA**	Ik1fnmin:	**0,53 kA**
Ik min:	**1,07 kA**	Zk min:	**159,9 mohm**
Ik2ftmax:	**1,28 kA**	Zk max:	**204,3 mohm**
Ip2ft:	**3,92 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**0,944 kA**	Zk2 max:	**0 mohm**
Ik2max:	**1,25 kA**	Zk1ftmin:	**326,1 mohm**
Ip2:	**3,83 kA**	Zk1ftmax:	**416,5 mohm**
Ik2min:	**0,93 kA**	Zk1fnmin:	**324,1 mohm**
Ik1ftmax:	**0,708 kA**	Zk1fnmx:	**414,3 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60L-C - 16A + Vigi iC60 A 0,03 A**		
Protection type:	**MT+D**		
Protection nominal current.:	**16 A**	Neutral thermic trip setting:	**16 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**160 A**
Release curve:	**C**	Residual trip setting:	**0,03 A**
Operational class:	**A**	Breaking capacity BC:	**25 kA**
Thermic trip setting:	**16 A**	BC > Upstream short-circuit I max:	**25 >= 14,1 kA**
Magnetic trip setting:	**160 A**	Standard:	**Icu - EN 60947**
Magnetic rel. < I max. mag:	**160 < 526,7 A**		

Identification

Unit ref-mark:	**+QUADRI SECONDARI.QELS-N-QELS-N C-14**
Denomination 1:	Luce Ascensore 3
Denomination 2:	Lato Sud
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic terminal**		
Rated power:	**0,5 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**L1-N**
Power dimensioning:	**0,5 kW**	Input frequency:	**50 Hz**
Reactive power:	**0,242 kVAR**	Transferred upstream power:	**0,556 kVA**
Load rated current Ib:	**2,41 A**	Total power:	**3,7 kVA**
Power factor:	**0,9**	Available power:	**3,14 kVA**
Rated voltage:	**231 V**	Number of loads per unit:	**1**

Cables

Formation:	**3G4**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FG16OM16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**HEPR**	K^2S^2 phase conductor:	**$3,272*10^5 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$3,272*10^5 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$3,272*10^5 A^2s$**
Line length:	**30 m**	Partial voltage drop by Ib:	**0,357 %**
Iz withstand current:	**49 A**	Total voltage drop by Ib:	**0,81 %**
Neutral withstand current:	**49 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**1 (Number of circuits: 1)**	Cable temperature by Ib:	**30,1 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**36,4 °C**
Total derating coefficient:	**1**	Ib<=In<=Iz Coordination:	**2,41<=16<=49 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**7,23 kA**	Ip1fn:	**3,35 kA**
Ikv max downstream:	**0,713 kA**	Ik1fnmin:	**0,53 kA**
Imagmax (maximum magnetic):	**526,7 A**	Zk1ftmin:	**326,1 mohm**
Ik1ftmax:	**0,708 kA**	Zk1ftmax:	**416,5 mohm**
Ip1ft:	**3,14 kA**	Zk1fnmin:	**324,1 mohm**
Ik1ftmin:	**0,527 kA**	Zk1fnmx:	**414,4 mohm**
Ik1fnmax:	**0,713 kA**		

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60N-C - 16A + Vigi iC60 A 0,03 A**		
Protection type:	**MT+D**		
Protection nominal current.:	**16 A**	Magnetic rel. < I max. mag:	**160 < 526,7 A**
Number of poles:	**2**	Residual trip setting:	**0,03 A**
Release curve:	**C**	Breaking capacity BC:	**20 kA**
Operational class:	**A**	BC > Upstream short-circuit I max:	**20 >= 7,23 kA**
Thermic trip setting:	**16 A**	Standard:	**Icu - EN 60947**
Magnetic trip setting:	**160 A**		

Identification

Unit ref-mark:	**+QUADRI SECONDARI.QELS-N-QELS-N C-15**
Denomination 1:	FM Ascensore 4
Denomination 2:	Lato Sud
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic terminal**		
Rated power:	**2,5 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**2,5 kW**	Input frequency:	**50 Hz**
Reactive power:	**1,21 kVAR**	Transferred upstream power:	**2,78 kVA**
Load rated current Ib:	**4,01 A**	Total power:	**11,1 kVA**
Power factor:	**0,9**	Available power:	**8,31 kVA**
Rated voltage:	**400 V**	Number of loads per unit:	**1**

Cables

Formation:	**5G4**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FG16OM16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**HEPR**	K^2S^2 phase conductor:	**$3,272*10^5 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$3,272*10^5 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$3,272*10^5 A^2s$**
Line length:	**30 m**	Partial voltage drop by Ib:	**0,298 %**
Iz withstand current:	**42 A**	Total voltage drop by Ib:	**0,732 %**
Neutral withstand current:	**42 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**1 (Number of circuits: 1)**	Cable temperature by Ib:	**30,5 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**38,7 °C**
Total derating coefficient:	**1**	Ib<=In<=Iz Coordination:	**4,01<=16<=42 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**14,1 kA**	Ip1ft:	**3,25 kA**
Ikv max downstream:	**1,44 kA**	Ik1ftmin:	**0,527 kA**
Imagmax (maximum magnetic):	**526,7 A**	Ik1fnmax:	**0,713 kA**
Ik max:	**1,44 kA**	Ip1fn:	**3,44 kA**
Ip:	**4,09 kA**	Ik1fnmin:	**0,53 kA**
Ik min:	**1,07 kA**	Zk min:	**159,9 mohm**
Ik2ftmax:	**1,28 kA**	Zk max:	**204,3 mohm**
Ip2ft:	**3,92 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**0,944 kA**	Zk2 max:	**0 mohm**
Ik2max:	**1,25 kA**	Zk1ftmin:	**326,1 mohm**
Ip2:	**3,83 kA**	Zk1ftmax:	**416,5 mohm**
Ik2min:	**0,93 kA**	Zk1fnmin:	**324,1 mohm**
Ik1ftmax:	**0,708 kA**	Zk1fnmx:	**414,3 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60L-C - 16A + Vigi iC60 A 0,03 A**		
Protection type:	**MT+D**		
Protection nominal current.:	**16 A**	Neutral thermic trip setting:	**16 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**160 A**
Release curve:	**C**	Residual trip setting:	**0,03 A**
Operational class:	**A**	Breaking capacity BC:	**25 kA**
Thermic trip setting:	**16 A**	BC > Upstream short-circuit I max:	**25 >= 14,1 kA**
Magnetic trip setting:	**160 A**	Standard:	**Icu - EN 60947**
Magnetic rel. < I max. mag:	**160 < 526,7 A**		

Identification

Unit ref-mark:	**+QUADRI SECONDARI.QELS-N-QELS-N C-16**
Denomination 1:	Luce Ascensore 4
Denomination 2:	Lato Sud
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic terminal**		
Rated power:	**0,5 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**L3-N**
Power dimensioning:	**0,5 kW**	Input frequency:	**50 Hz**
Reactive power:	**0,242 kVAR**	Transferred upstream power:	**0,556 kVA**
Load rated current Ib:	**2,41 A**	Total power:	**3,7 kVA**
Power factor:	**0,9**	Available power:	**3,14 kVA**
Rated voltage:	**231 V**	Number of loads per unit:	**1**

Cables

Formation:	**3G4**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FG16OM16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**HEPR**	K^2S^2 phase conductor:	**$3,272*10^5 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$3,272*10^5 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$3,272*10^5 A^2s$**
Line length:	**30 m**	Partial voltage drop by Ib:	**0,357 %**
Iz withstand current:	**49 A**	Total voltage drop by Ib:	**0,816 %**
Neutral withstand current:	**49 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**1 (Number of circuits: 1)**	Cable temperature by Ib:	**30,1 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**36,4 °C**
Total derating coefficient:	**1**	Ib<=In<=Iz Coordination:	**2,41<=16<=49 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**7,23 kA**	Ip1fn:	**3,35 kA**
Ikv max downstream:	**0,713 kA**	Ik1fnmin:	**0,53 kA**
Imagmax (maximum magnetic):	**526,7 A**	Zk1ftmin:	**326,1 mohm**
Ik1ftmax:	**0,708 kA**	Zk1ftmax:	**416,5 mohm**
Ip1ft:	**3,14 kA**	Zk1fnmin:	**324,1 mohm**
Ik1ftmin:	**0,527 kA**	Zk1fnmx:	**414,4 mohm**
Ik1fnmax:	**0,713 kA**		

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60N-C - 16A + Vigi iC60 A 0,03 A**		
Protection type:	**MT+D**		
Protection nominal current.:	**16 A**	Magnetic rel. < I max. mag:	**160 < 526,7 A**
Number of poles:	**2**	Residual trip setting:	**0,03 A**
Release curve:	**C**	Breaking capacity BC:	**20 kA**
Operational class:	**A**	BC > Upstream short-circuit I max:	**20 >= 7,23 kA**
Thermic trip setting:	**16 A**	Standard:	**Icu - EN 60947**
Magnetic trip setting:	**160 A**		

Identification

Unit ref-mark:	**+QUADRI SECONDARI.QELS-N-QELS-N C-17**
Denomination 1:	FM Montacarichi
Denomination 2:	Lato Sud
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic terminal**		
Rated power:	**3 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**3 kW**	Input frequency:	**50 Hz**
Reactive power:	**1,45 kVAR**	Transferred upstream power:	**3,33 kVA**
Load rated current Ib:	**4,81 A**	Total power:	**11,1 kVA**
Power factor:	**0,9**	Available power:	**7,75 kVA**
Rated voltage:	**400 V**	Number of loads per unit:	**1**

Cables

Formation:	**5G4**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FG16OM16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**HEPR**	K^2S^2 phase conductor:	**$3,272*10^5 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$3,272*10^5 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$3,272*10^5 A^2s$**
Line length:	**30 m**	Partial voltage drop by Ib:	**0,357 %**
Iz withstand current:	**42 A**	Total voltage drop by Ib:	**0,792 %**
Neutral withstand current:	**42 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**1 (Number of circuits: 1)**	Cable temperature by Ib:	**30,8 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**38,7 °C**
Total derating coefficient:	**1**	Ib<=In<=Iz Coordination:	**4,81<=16<=42 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**14,1 kA**	Ip1ft:	**3,25 kA**
Ikv max downstream:	**1,44 kA**	Ik1ftmin:	**0,527 kA**
Imagmax (maximum magnetic):	**526,7 A**	Ik1fnmax:	**0,713 kA**
Ik max:	**1,44 kA**	Ip1fn:	**3,44 kA**
Ip:	**4,09 kA**	Ik1fnmin:	**0,53 kA**
Ik min:	**1,07 kA**	Zk min:	**159,9 mohm**
Ik2ftmax:	**1,28 kA**	Zk max:	**204,3 mohm**
Ip2ft:	**3,92 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**0,944 kA**	Zk2 max:	**0 mohm**
Ik2max:	**1,25 kA**	Zk1ftmin:	**326,1 mohm**
Ip2:	**3,83 kA**	Zk1ftmax:	**416,5 mohm**
Ik2min:	**0,93 kA**	Zk1fnmin:	**324,1 mohm**
Ik1ftmax:	**0,708 kA**	Zk1fnmx:	**414,3 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60L-C - 16A + Vigi iC60 A 0,03 A**		
Protection type:	**MT+D**		
Protection nominal current.:	**16 A**	Neutral thermic trip setting:	**16 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**160 A**
Release curve:	**C**	Residual trip setting:	**0,03 A**
Operational class:	**A**	Breaking capacity BC:	**25 kA**
Thermic trip setting:	**16 A**	BC > Upstream short-circuit I max:	**25 >= 14,1 kA**
Magnetic trip setting:	**160 A**	Standard:	**Icu - EN 60947**
Magnetic rel. < I max. mag:	**160 < 526,7 A**		

Identification

Unit ref-mark:	**+QUADRI SECONDARI.QELS-N-QELS-N C-18**
Denomination 1:	Riserva
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**0 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**0 kW**	Input frequency:	**50 Hz**
Reactive power:	**0 kVAR**	Transferred upstream power:	**0 kVA**
Load rated current Ib:	**0 A**	Total power:	**43,6 kVA**
Power factor:	**0,9**	Available power:	**43,6 kVA**
Rated voltage:	**400 V**		

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**14,1 kA**	Ip1ft:	**7,33 kA**
Ikv max downstream:	**14,1 kA**	Ik1ftmin:	**5,12 kA**
Imagmax (maximum magnetic):	**5122 A**	Ik1fnmax:	**7,23 kA**
Ik max:	**14,1 kA**	Ip1fn:	**8,07 kA**
Ip:	**10,3 kA**	Ik1fnmin:	**5,64 kA**
Ik min:	**11,6 kA**	Zk min:	**16,3 mohm**
Ik2ftmax:	**12,9 kA**	Zk max:	**18,9 mohm**
Ip2ft:	**9,78 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**9,82 kA**	Zk2 max:	**0 mohm**
Ik2max:	**12,2 kA**	Zk1ftmin:	**36,1 mohm**
Ip2:	**9,54 kA**	Zk1ftmax:	**42,8 mohm**
Ik2min:	**10,1 kA**	Zk1fnmin:	**32 mohm**
Ik1ftmax:	**6,4 kA**	Zk1fnmx:	**38,9 mohm**

Protection

Protection manufacturer:	**ABB**		
Protection ref-mark:	**XT4H 160 + XT4 Ekip LS/I + XT1 RC Sel 200**		
Protection type:	**MT+D**		
Protection nominal current.:	**160 A**	Neutral thermic trip setting:	**63 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**630 A**
Operational class:	**AC**	Residual trip setting:	**1 A**
Thermic trip setting:	**63 A**	Breaking capacity BC:	**70 kA**
Magnetic trip setting:	**630 A**	BC > Upstream short-circuit I max:	**70 >= 14,1 kA**
Magnetic rel. < I max. mag:	**630 < 5122 A**	Standard:	**Icu - EN 60947**

Identification

Unit ref-mark:	**+QUADRI SECONDARI.QELS-N-QELS-N C-19**
Denomination 1:	Riserva
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**0 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**0 kW**	Input frequency:	**50 Hz**
Reactive power:	**0 kVAR**	Transferred upstream power:	**0 kVA**
Load rated current Ib:	**0 A**	Total power:	**43,6 kVA**
Power factor:	**0,9**	Available power:	**43,6 kVA**
Rated voltage:	**400 V**		

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**14,1 kA**	Ip1ft:	**7,33 kA**
Ikv max downstream:	**14,1 kA**	Ik1ftmin:	**5,12 kA**
Imagmax (maximum magnetic):	**5122 A**	Ik1fnmax:	**7,23 kA**
Ik max:	**14,1 kA**	Ip1fn:	**8,07 kA**
Ip:	**10,3 kA**	Ik1fnmin:	**5,64 kA**
Ik min:	**11,6 kA**	Zk min:	**16,3 mohm**
Ik2ftmax:	**12,9 kA**	Zk max:	**18,9 mohm**
Ip2ft:	**9,78 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**9,82 kA**	Zk2 max:	**0 mohm**
Ik2max:	**12,2 kA**	Zk1ftmin:	**36,1 mohm**
Ip2:	**9,54 kA**	Zk1ftmax:	**42,8 mohm**
Ik2min:	**10,1 kA**	Zk1fnmin:	**32 mohm**
Ik1ftmax:	**6,4 kA**	Zk1fnmx:	**38,9 mohm**

Protection

Protection manufacturer:	**ABB**		
Protection ref-mark:	**XT4H 160 + XT4 Ekip LS/I + XT1 RC Sel 200**		
Protection type:	**MT+D**		
Protection nominal current.:	**160 A**	Neutral thermic trip setting:	**63 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**630 A**
Operational class:	**AC**	Residual trip setting:	**1 A**
Thermic trip setting:	**63 A**	Breaking capacity BC:	**70 kA**
Magnetic trip setting:	**630 A**	BC > Upstream short-circuit I max:	**70 >= 14,1 kA**
Magnetic rel. < I max. mag:	**630 < 5122 A**	Standard:	**Icu - EN 60947**

Identification

Unit ref-mark:	**+QUADRI SECONDARI.QELS-N-QELS-N C-20**
Denomination 1:	Riserva
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**0 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**0 kW**	Input frequency:	**50 Hz**
Reactive power:	**0 kVAR**	Transferred upstream power:	**0 kVA**
Load rated current Ib:	**0 A**	Total power:	**43,6 kVA**
Power factor:	**0,9**	Available power:	**43,6 kVA**
Rated voltage:	**400 V**		

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**14,1 kA**	Ip1ft:	**7,33 kA**
Ikv max downstream:	**14,1 kA**	Ik1ftmin:	**5,12 kA**
Imagmax (maximum magnetic):	**5122 A**	Ik1fnmax:	**7,23 kA**
Ik max:	**14,1 kA**	Ip1fn:	**8,07 kA**
Ip:	**10,3 kA**	Ik1fnmin:	**5,64 kA**
Ik min:	**11,6 kA**	Zk min:	**16,3 mohm**
Ik2ftmax:	**12,9 kA**	Zk max:	**18,9 mohm**
Ip2ft:	**9,78 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**9,82 kA**	Zk2 max:	**0 mohm**
Ik2max:	**12,2 kA**	Zk1ftmin:	**36,1 mohm**
Ip2:	**9,54 kA**	Zk1ftmax:	**42,8 mohm**
Ik2min:	**10,1 kA**	Zk1fnmin:	**32 mohm**
Ik1ftmax:	**6,4 kA**	Zk1fnmx:	**38,9 mohm**

Protection

Protection manufacturer:	**ABB**		
Protection ref-mark:	**XT4H 160 + XT4 Ekip LS/I + XT1 RC Sel 200**		
Protection type:	**MT+D**		
Protection nominal current.:	**160 A**	Neutral thermic trip setting:	**63 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**630 A**
Operational class:	**AC**	Residual trip setting:	**1 A**
Thermic trip setting:	**63 A**	Breaking capacity BC:	**70 kA**
Magnetic trip setting:	**630 A**	BC > Upstream short-circuit I max:	**70 >= 14,1 kA**
Magnetic rel. < I max. mag:	**630 < 5122 A**	Standard:	**Icu - EN 60947**

Identification

Unit ref-mark:	**+QUADRI SECONDARI.QELS-N-QELS-N C-21**
Denomination 1:	Riserva
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**0 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**0 kW**	Input frequency:	**50 Hz**
Reactive power:	**0 kVAR**	Transferred upstream power:	**0 kVA**
Load rated current Ib:	**0 A**	Total power:	**43,6 kVA**
Power factor:	**0,9**	Available power:	**43,6 kVA**
Rated voltage:	**400 V**		

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**14,1 kA**	Ip1ft:	**7,33 kA**
Ikv max downstream:	**14,1 kA**	Ik1ftmin:	**5,12 kA**
Imagmax (maximum magnetic):	**5122 A**	Ik1fnmax:	**7,23 kA**
Ik max:	**14,1 kA**	Ip1fn:	**8,07 kA**
Ip:	**10,3 kA**	Ik1fnmin:	**5,64 kA**
Ik min:	**11,6 kA**	Zk min:	**16,3 mohm**
Ik2ftmax:	**12,9 kA**	Zk max:	**18,9 mohm**
Ip2ft:	**9,78 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**9,82 kA**	Zk2 max:	**0 mohm**
Ik2max:	**12,2 kA**	Zk1ftmin:	**36,1 mohm**
Ip2:	**9,54 kA**	Zk1ftmax:	**42,8 mohm**
Ik2min:	**10,1 kA**	Zk1fnmin:	**32 mohm**
Ik1ftmax:	**6,4 kA**	Zk1fnmx:	**38,9 mohm**

Protection

Protection manufacturer:	**ABB**		
Protection ref-mark:	**XT4H 160 + XT4 Ekip LS/I + XT1 RC Sel 200**		
Protection type:	**MT+D**		
Protection nominal current.:	**160 A**	Neutral thermic trip setting:	**63 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**630 A**
Operational class:	**AC**	Residual trip setting:	**1 A**
Thermic trip setting:	**63 A**	Breaking capacity BC:	**70 kA**
Magnetic trip setting:	**630 A**	BC > Upstream short-circuit I max:	**70 >= 14,1 kA**
Magnetic rel. < I max. mag:	**630 < 5122 A**	Standard:	**Icu - EN 60947**

Identification

Unit ref-mark:	**+QUADRI SECONDARI.QELS-S1-QELS-S1 C-00**
Denomination 1:	Generale Quadro
Denomination 2:	Sezione Sicura 1
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**5,64 kW**	Distribution system:	**TN-S**
Coefficient:	**0,5**	Phases link:	**3P+N**
Power dimensioning:	**2,82 kW**	Input frequency:	**50 Hz**
Reactive power:	**1,37 kVAR**	Transferred upstream power:	**3,13 kVA**
Load rated current Ib:	**8,05 A**	Total power:	**55,4 kVA**
Power factor:	**0,9**	Available power:	**52,3 kVA**
Rated voltage:	**400 V**		

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**9,89 kA**	Ip1ft:	**4,44 kA**
Ikv max downstream:	**9,89 kA**	Ik1ftmin:	**3,06 kA**
Imagmax (maximum magnetic):	**3061 A**	Ik1fnmax:	**4,22 kA**
Ik max:	**9,89 kA**	Ip1fn:	**4,56 kA**
Ip:	**5,79 kA**	Ik1fnmin:	**3,19 kA**
Ik min:	**7,68 kA**	Zk min:	**23,4 mohm**
Ik2ftmax:	**8,86 kA**	Zk max:	**28,6 mohm**
Ip2ft:	**5,55 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**6,57 kA**	Zk2 max:	**0 mohm**
Ik2max:	**8,56 kA**	Zk1ftmin:	**57,6 mohm**
Ip2:	**5,48 kA**	Zk1ftmax:	**71,7 mohm**
Ik2min:	**6,65 kA**	Zk1fnmin:	**54,7 mohm**
Ik1ftmax:	**4,01 kA**	Zk1fnmx:	**68,9 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iSW-NA 80A**		
Protection nominal current.:	**80 A**	Overload current Ins:	**80 A**
Number of poles:	**4**	Breaking capacity BC:	**n.d.**

Identification

Unit ref-mark:	**+QUADRI SECONDARI.QELS-S1-QELS-S1 C-01**
Denomination 1:	Riserva
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**0 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**0 kW**	Input frequency:	**50 Hz**
Reactive power:	**0 kVAR**	Transferred upstream power:	**0 kVA**
Load rated current Ib:	**0 A**	Total power:	**22,2 kVA**
Power factor:	**0,9**	Available power:	**22,2 kVA**
Rated voltage:	**400 V**		

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**9,89 kA**	Ip1ft:	**3,66 kA**
Ikv max downstream:	**9,89 kA**	Ik1ftmin:	**3,06 kA**
Imagmax (maximum magnetic):	**3061 A**	Ik1fnmax:	**4,22 kA**
Ik max:	**9,89 kA**	Ip1fn:	**3,77 kA**
Ip:	**5,4 kA**	Ik1fnmin:	**3,19 kA**
Ik min:	**7,68 kA**	Zk min:	**23,4 mohm**
Ik2ftmax:	**8,86 kA**	Zk max:	**28,6 mohm**
Ip2ft:	**5,04 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**6,57 kA**	Zk2 max:	**0 mohm**
Ik2max:	**8,56 kA**	Zk1ftmin:	**57,6 mohm**
Ip2:	**4,93 kA**	Zk1ftmax:	**71,7 mohm**
Ik2min:	**6,65 kA**	Zk1fnmin:	**54,7 mohm**
Ik1ftmax:	**4,01 kA**	Zk1fnmx:	**68,9 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60N-D - 32A**		
Protection type:	**MT**		
Protection nominal current.:	**32 A**	Neutral thermic trip setting:	**32 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**448 A**
Release curve:	**D**	Breaking capacity BC:	**10 kA**
Thermic trip setting:	**32 A**	BC > Upstream short-circuit I max:	**10 >= 9,89 kA**
Magnetic trip setting:	**448 A**	Standard:	**Icu - EN 60947**
Magnetic rel. < I max. mag:	**448 < 3061 A**		

Identification

Unit ref-mark:	**+QUADRI SECONDARI.QELS-S1-QELS-S1 C-02**
Denomination 1:	QEAF-S1
Denomination 2:	Q.E. Atrio-Foyer
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**2,3 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**2,3 kW**	Input frequency:	**50 Hz**
Reactive power:	**1,11 kVAR**	Transferred upstream power:	**2,55 kVA**
Load rated current Ib:	**7,05 A**	Total power:	**34,6 kVA**
Power factor:	**0,9**	Available power:	**32,1 kVA**
Rated voltage:	**400 V**		

Cables

Formation:	**5G10**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Coat on horizontal or vertical punched dridges (or not)		
Cable designation	FTG18OM16 0,6/1 kV B2ca-s1a,d1,a1		
Insulating (line+neutral+PE):	**EPR**	K^2S^2 phase conductor:	**$2,045*10^6 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$2,045*10^6 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$2,045*10^6 A^2s$**
Line length:	**95 m**	Partial voltage drop by Ib:	**1,23 %**
Iz withstand current:	**61,5 A**	Total voltage drop by Ib:	**1,57 %**
Neutral withstand current:	**61,5 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**0,82 (Number of circuits: 3)**	Cable temperature by Ib:	**30,8 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**69,7 °C**
Total derating coefficient:	**0,82**	Ib<=In<=Iz Coordination:	**7,05<=50<=61,5 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**9,89 kA**	Ip1ft:	**3,58 kA**
Ikv max downstream:	**1,14 kA**	Ik1ftmin:	**0,411 kA**
Imagmax (maximum magnetic):	**411,3 A**	Ik1fnmax:	**0,555 kA**
Ik max:	**1,14 kA**	Ip1fn:	**3,73 kA**
Ip:	**5,24 kA**	Ik1fnmin:	**0,413 kA**
Ik min:	**0,848 kA**	Zk min:	**202,6 mohm**
Ik2ftmax:	**1,01 kA**	Zk max:	**258,7 mohm**
Ip2ft:	**4,94 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**0,745 kA**	Zk2 max:	**0 mohm**
Ik2max:	**0,987 kA**	Zk1ftmin:	**417,6 mohm**
Ip2:	**4,85 kA**	Zk1ftmax:	**533,4 mohm**
Ik2min:	**0,734 kA**	Zk1fnmin:	**415,8 mohm**
Ik1ftmax:	**0,553 kA**	Zk1fnmx:	**531,5 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60N-D - 50A**		
Protection type:	**MT**		
Protection nominal current.:	**50 A**	Neutral thermic trip setting:	**50 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**700 A**
Release curve:	**D**	Breaking capacity BC:	**10 kA**
Thermic trip setting:	**50 A**	BC > Upstream short-circuit I max:	**10 >= 9,89 kA**
Magnetic trip setting:	**700 A**	Standard:	**Icu - EN 60947**
Magnetic rel. < I max. mag:	**Indirect contacts prot**		

Identification

Unit ref-mark:	**+QUADRI SECONDARI.QELS-S1-QELS-S1 C-03**
Denomination 1:	QERS-S1
Denomination 2:	Q.E. Regia Sale
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**0,45 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**0,45 kW**	Input frequency:	**50 Hz**
Reactive power:	**0,218 kVAR**	Transferred upstream power:	**0,5 kVA**
Load rated current Ib:	**1,44 A**	Total power:	**22,2 kVA**
Power factor:	**0,9**	Available power:	**21,7 kVA**
Rated voltage:	**400 V**		

Cables

Formation:	**5G6**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Coat on horizontal or vertical punched dridges (or not)		
Cable designation	FTG18OM16 0,6/1 kV B2ca-s1a,d1,a1		
Insulating (line+neutral+PE):	**EPR**	K^2S^2 phase conductor:	**$7,362*10^5 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$7,362*10^5 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$7,362*10^5 A^2s$**
Line length:	**95 m**	Partial voltage drop by Ib:	**0,443 %**
Iz withstand current:	**44,3 A**	Total voltage drop by Ib:	**0,788 %**
Neutral withstand current:	**44,3 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**0,82 (Number of circuits: 3)**	Cable temperature by Ib:	**30,1 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**61,3 °C**
Total derating coefficient:	**0,82**	Ib<=In<=Iz Coordination:	**1,44<=32<=44,3 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**9,89 kA**	Ip1ft:	**3,66 kA**
Ikv max downstream:	**0,692 kA**	Ik1ftmin:	**0,252 kA**
Imagmax (maximum magnetic):	**252,4 A**	Ik1fnmax:	**0,341 kA**
Ik max:	**0,692 kA**	Ip1fn:	**3,77 kA**
Ip:	**5,4 kA**	Ik1fnmin:	**0,253 kA**
Ik min:	**0,514 kA**	Zk min:	**333,7 mohm**
Ik2ftmax:	**0,611 kA**	Zk max:	**426,7 mohm**
Ip2ft:	**5,04 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**0,452 kA**	Zk2 max:	**0 mohm**
Ik2max:	**0,599 kA**	Zk1ftmin:	**679,9 mohm**
Ip2:	**4,93 kA**	Zk1ftmax:	**869,3 mohm**
Ik2min:	**0,445 kA**	Zk1fnmin:	**678,2 mohm**
Ik1ftmax:	**0,34 kA**	Zk1fnmx:	**867,5 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60N-D - 32A**		
Protection type:	**MT**		
Protection nominal current.:	**32 A**	Neutral thermic trip setting:	**32 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**448 A**
Release curve:	**D**	Breaking capacity BC:	**10 kA**
Thermic trip setting:	**32 A**	BC > Upstream short-circuit I max:	**10 >= 9,89 kA**
Magnetic trip setting:	**448 A**	Standard:	**Icu - EN 60947**
Magnetic rel. < I max. mag:	**Indirect contacts prot**		

Identification

Unit ref-mark:	**+QUADRI SECONDARI.QELS-S1-QELS-S1 C-04**
Denomination 1:	QEMSTR-S1
Denomination 2:	Q.E. Servizi MT Ricezione
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**0,84 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**0,84 kW**	Input frequency:	**50 Hz**
Reactive power:	**0,407 kVAR**	Transferred upstream power:	**0,933 kVA**
Load rated current Ib:	**1,68 A**	Total power:	**22,2 kVA**
Power factor:	**0,9**	Available power:	**21,2 kVA**
Rated voltage:	**400 V**		

Cables

Formation:	**5G6**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Coat on horizontal or vertical punched dridges (or not)		
Cable designation	FTG18OM16 0,6/1 kV B2ca-s1a,d1,a1		
Insulating (line+neutral+PE):	**EPR**	K^2S^2 phase conductor:	**$7,362*10^5 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$7,362*10^5 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$7,362*10^5 A^2s$**
Line length:	**85 m**	Partial voltage drop by Ib:	**0,327 %**
Iz withstand current:	**44,3 A**	Total voltage drop by Ib:	**0,564 %**
Neutral withstand current:	**44,3 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**0,82 (Number of circuits: 3)**	Cable temperature by Ib:	**30,1 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**61,3 °C**
Total derating coefficient:	**0,82**	Ib<=In<=Iz Coordination:	**1,68<=32<=44,3 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**9,89 kA**	Ip1ft:	**3,66 kA**
Ikv max downstream:	**0,768 kA**	Ik1ftmin:	**0,279 kA**
Imagmax (maximum magnetic):	**279,4 A**	Ik1fnmax:	**0,377 kA**
Ik max:	**0,768 kA**	Ip1fn:	**3,77 kA**
Ip:	**5,4 kA**	Ik1fnmin:	**0,28 kA**
Ik min:	**0,571 kA**	Zk min:	**300,8 mohm**
Ik2ftmax:	**0,678 kA**	Zk max:	**384,6 mohm**
Ip2ft:	**5,04 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**0,502 kA**	Zk2 max:	**0 mohm**
Ik2max:	**0,665 kA**	Zk1ftmin:	**614,1 mohm**
Ip2:	**4,93 kA**	Zk1ftmax:	**785,1 mohm**
Ik2min:	**0,494 kA**	Zk1fnmin:	**612,4 mohm**
Ik1ftmax:	**0,376 kA**	Zk1fnmx:	**783,3 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60N-D - 32A**		
Protection type:	**MT**		
Protection nominal current.:	**32 A**	Neutral thermic trip setting:	**32 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**448 A**
Release curve:	**D**	Breaking capacity BC:	**10 kA**
Thermic trip setting:	**32 A**	BC > Upstream short-circuit I max:	**10 >= 9,89 kA**
Magnetic trip setting:	**448 A**	Standard:	**Icu - EN 60947**
Magnetic rel. < I max. mag:	**Indirect contacts prot**		

Identification

Unit ref-mark:	**+QUADRI SECONDARI.QELS-S1-QELS-S1 C-05**
Denomination 1:	QRTS-S1
Denomination 2:	Q.E. Regia Teatrino Sud
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**0,85 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**0,85 kW**	Input frequency:	**50 Hz**
Reactive power:	**0,412 kVAR**	Transferred upstream power:	**0,944 kVA**
Load rated current Ib:	**2,89 A**	Total power:	**34,6 kVA**
Power factor:	**0,9**	Available power:	**33,7 kVA**
Rated voltage:	**400 V**		

Cables

Formation:	**5G10**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Coat on horizontal or vertical punched dridges (or not)		
Cable designation	FTG18OM16 0,6/1 kV B2ca-s1a,d1,a1		
Insulating (line+neutral+PE):	**EPR**	K^2S^2 phase conductor:	**$2,045*10^6 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$2,045*10^6 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$2,045*10^6 A^2s$**
Line length:	**85 m**	Partial voltage drop by Ib:	**0,463 %**
Iz withstand current:	**61,5 A**	Total voltage drop by Ib:	**0,807 %**
Neutral withstand current:	**61,5 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**0,82 (Number of circuits: 3)**	Cable temperature by Ib:	**30,1 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**69,7 °C**
Total derating coefficient:	**0,82**	Ib<=In<=Iz Coordination:	**2,89<=50<=61,5 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**9,89 kA**	Ip1ft:	**3,58 kA**
Ikv max downstream:	**1,26 kA**	Ik1ftmin:	**0,453 kA**
Imagmax (maximum magnetic):	**452,7 A**	Ik1fnmax:	**0,612 kA**
Ik max:	**1,26 kA**	Ip1fn:	**3,73 kA**
Ip:	**5,24 kA**	Ik1fnmin:	**0,455 kA**
Ik min:	**0,936 kA**	Zk min:	**183,5 mohm**
Ik2ftmax:	**1,11 kA**	Zk max:	**234,4 mohm**
Ip2ft:	**4,94 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**0,822 kA**	Zk2 max:	**0 mohm**
Ik2max:	**1,09 kA**	Zk1ftmin:	**379,5 mohm**
Ip2:	**4,85 kA**	Zk1ftmax:	**484,6 mohm**
Ik2min:	**0,811 kA**	Zk1fnmin:	**377,6 mohm**
Ik1ftmax:	**0,609 kA**	Zk1fnmx:	**482,7 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60N-C - 50A**		
Protection type:	**MT**		
Protection nominal current.:	**50 A**	Neutral thermic trip setting:	**50 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**500 A**
Release curve:	**C**	Breaking capacity BC:	**10 kA**
Thermic trip setting:	**50 A**	BC > Upstream short-circuit I max:	**10 >= 9,89 kA**
Magnetic trip setting:	**500 A**	Standard:	**Icu - EN 60947**
Magnetic rel. < I max. mag:	**Indirect contacts prot**		

Identification

Unit ref-mark:	**+QUADRI SECONDARI.QELS-S1-QELS-S1 C-06**
Denomination 1:	QEUF-S1
Denomination 2:	Q.E. Ufficio
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**1,2 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**1,2 kW**	Input frequency:	**50 Hz**
Reactive power:	**0,581 kVAR**	Transferred upstream power:	**1,33 kVA**
Load rated current Ib:	**3,37 A**	Total power:	**22,2 kVA**
Power factor:	**0,9**	Available power:	**20,8 kVA**
Rated voltage:	**400 V**		

Cables

Formation:	**5G6**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Coat on horizontal or vertical punched dridges (or not)		
Cable designation	FTG18OM16 0,6/1 kV B2ca-s1a,d1,a1		
Insulating (line+neutral+PE):	**EPR**	K^2S^2 phase conductor:	**$7,362*10^5 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$7,362*10^5 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$7,362*10^5 A^2s$**
Line length:	**85 m**	Partial voltage drop by Ib:	**0,914 %**
Iz withstand current:	**44,3 A**	Total voltage drop by Ib:	**1,26 %**
Neutral withstand current:	**44,3 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**0,82 (Number of circuits: 3)**	Cable temperature by Ib:	**30,3 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**61,3 °C**
Total derating coefficient:	**0,82**	Ib<=In<=Iz Coordination:	**3,37<=32<=44,3 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**9,89 kA**	Ip1ft:	**3,66 kA**
Ikv max downstream:	**0,768 kA**	Ik1ftmin:	**0,279 kA**
Imagmax (maximum magnetic):	**279,4 A**	Ik1fnmax:	**0,377 kA**
Ik max:	**0,768 kA**	Ip1fn:	**3,77 kA**
Ip:	**5,4 kA**	Ik1fnmin:	**0,28 kA**
Ik min:	**0,571 kA**	Zk min:	**300,8 mohm**
Ik2ftmax:	**0,678 kA**	Zk max:	**384,6 mohm**
Ip2ft:	**5,04 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**0,502 kA**	Zk2 max:	**0 mohm**
Ik2max:	**0,665 kA**	Zk1ftmin:	**614,1 mohm**
Ip2:	**4,93 kA**	Zk1ftmax:	**785,1 mohm**
Ik2min:	**0,494 kA**	Zk1fnmin:	**612,4 mohm**
Ik1ftmax:	**0,376 kA**	Zk1fnmx:	**783,3 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60N-C - 32A**		
Protection type:	**MT**		
Protection nominal current.:	**32 A**	Neutral thermic trip setting:	**32 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**320 A**
Release curve:	**C**	Breaking capacity BC:	**10 kA**
Thermic trip setting:	**32 A**	BC > Upstream short-circuit I max:	**10 >= 9,89 kA**
Magnetic trip setting:	**320 A**	Standard:	**Icu - EN 60947**
Magnetic rel. < I max. mag:	**Indirect contacts prot**		

Identification

Unit ref-mark:	**+QUADRI SECONDARI.QELS-S1-QELS-S1 C-07**
Denomination 1:	Riserva
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**0 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**0 kW**	Input frequency:	**50 Hz**
Reactive power:	**0 kVAR**	Transferred upstream power:	**0 kVA**
Load rated current Ib:	**0 A**	Total power:	**22,2 kVA**
Power factor:	**0,9**	Available power:	**22,2 kVA**
Rated voltage:	**400 V**		

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**9,89 kA**	Ip1ft:	**3,57 kA**
Ikv max downstream:	**9,89 kA**	Ik1ftmin:	**3,06 kA**
Imagmax (maximum magnetic):	**3061 A**	Ik1fnmax:	**4,22 kA**
Ik max:	**9,89 kA**	Ip1fn:	**3,68 kA**
Ip:	**5,02 kA**	Ik1fnmin:	**3,19 kA**
Ik min:	**7,68 kA**	Zk min:	**23,4 mohm**
Ik2ftmax:	**8,86 kA**	Zk max:	**28,6 mohm**
Ip2ft:	**4,76 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**6,57 kA**	Zk2 max:	**0 mohm**
Ik2max:	**8,56 kA**	Zk1ftmin:	**57,6 mohm**
Ip2:	**4,68 kA**	Zk1ftmax:	**71,7 mohm**
Ik2min:	**6,65 kA**	Zk1fnmin:	**54,7 mohm**
Ik1ftmax:	**4,01 kA**	Zk1fnmx:	**68,9 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60L-C - 32A**		
Protection type:	**MT**		
Protection nominal current.:	**32 A**	Neutral thermic trip setting:	**32 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**320 A**
Release curve:	**C**	Breaking capacity BC:	**20 kA**
Thermic trip setting:	**32 A**	BC > Upstream short-circuit I max:	**20 >= 9,89 kA**
Magnetic trip setting:	**320 A**	Standard:	**Icu - EN 60947**
Magnetic rel. < I max. mag:	**320 < 3061 A**		

Identification

Unit ref-mark:	**+QUADRI SECONDARI.QELS-S1-QELS-S1 C-08**
Denomination 1:	Riserva
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**0 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**0 kW**	Input frequency:	**50 Hz**
Reactive power:	**0 kVAR**	Transferred upstream power:	**0 kVA**
Load rated current Ib:	**0 A**	Total power:	**22,2 kVA**
Power factor:	**0,9**	Available power:	**22,2 kVA**
Rated voltage:	**400 V**		

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**9,89 kA**	Ip1ft:	**3,57 kA**
Ikv max downstream:	**9,89 kA**	Ik1ftmin:	**3,06 kA**
Imagmax (maximum magnetic):	**3061 A**	Ik1fnmax:	**4,22 kA**
Ik max:	**9,89 kA**	Ip1fn:	**3,68 kA**
Ip:	**5,02 kA**	Ik1fnmin:	**3,19 kA**
Ik min:	**7,68 kA**	Zk min:	**23,4 mohm**
Ik2ftmax:	**8,86 kA**	Zk max:	**28,6 mohm**
Ip2ft:	**4,76 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**6,57 kA**	Zk2 max:	**0 mohm**
Ik2max:	**8,56 kA**	Zk1ftmin:	**57,6 mohm**
Ip2:	**4,68 kA**	Zk1ftmax:	**71,7 mohm**
Ik2min:	**6,65 kA**	Zk1fnmin:	**54,7 mohm**
Ik1ftmax:	**4,01 kA**	Zk1fnmx:	**68,9 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60L-C - 32A**		
Protection type:	**MT**		
Protection nominal current.:	**32 A**	Neutral thermic trip setting:	**32 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**320 A**
Release curve:	**C**	Breaking capacity BC:	**20 kA**
Thermic trip setting:	**32 A**	BC > Upstream short-circuit I max:	**20 >= 9,89 kA**
Magnetic trip setting:	**320 A**	Standard:	**Icu - EN 60947**
Magnetic rel. < I max. mag:	**320 < 3061 A**		

Identification

Unit ref-mark:	**+QUADRI SECONDARI.QELS-S1-QELS-S1 C-09**
Denomination 1:	Riserva
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**0 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**0 kW**	Input frequency:	**50 Hz**
Reactive power:	**0 kVAR**	Transferred upstream power:	**0 kVA**
Load rated current Ib:	**0 A**	Total power:	**22,2 kVA**
Power factor:	**0,9**	Available power:	**22,2 kVA**
Rated voltage:	**400 V**		

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**9,89 kA**	Ip1ft:	**3,57 kA**
Ikv max downstream:	**9,89 kA**	Ik1ftmin:	**3,06 kA**
Imagmax (maximum magnetic):	**3061 A**	Ik1fnmax:	**4,22 kA**
Ik max:	**9,89 kA**	Ip1fn:	**3,68 kA**
Ip:	**5,02 kA**	Ik1fnmin:	**3,19 kA**
Ik min:	**7,68 kA**	Zk min:	**23,4 mohm**
Ik2ftmax:	**8,86 kA**	Zk max:	**28,6 mohm**
Ip2ft:	**4,76 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**6,57 kA**	Zk2 max:	**0 mohm**
Ik2max:	**8,56 kA**	Zk1ftmin:	**57,6 mohm**
Ip2:	**4,68 kA**	Zk1ftmax:	**71,7 mohm**
Ik2min:	**6,65 kA**	Zk1fnmin:	**54,7 mohm**
Ik1ftmax:	**4,01 kA**	Zk1fnmx:	**68,9 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60L-C - 32A**		
Protection type:	**MT**		
Protection nominal current.:	**32 A**	Neutral thermic trip setting:	**32 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**320 A**
Release curve:	**C**	Breaking capacity BC:	**20 kA**
Thermic trip setting:	**32 A**	BC > Upstream short-circuit I max:	**20 >= 9,89 kA**
Magnetic trip setting:	**320 A**	Standard:	**Icu - EN 60947**
Magnetic rel. < I max. mag:	**320 < 3061 A**		

Identification

Unit ref-mark:	**+QUADRI SECONDARI.QELS-S2-QELS-S2 C-00**
Denomination 1:	
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**3,7 kW**	Distribution system:	**TN-S**
Coefficient:	**0,5**	Phases link:	**3P+N**
Power dimensioning:	**1,85 kW**	Input frequency:	**50 Hz**
Reactive power:	**0,896 kVAR**	Transferred upstream power:	**2,06 kVA**
Load rated current Ib:	**5,81 A**	Total power:	**55,4 kVA**
Power factor:	**0,9**	Available power:	**53,4 kVA**
Rated voltage:	**400 V**		

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**3,99 kA**	Ip1ft:	**2,58 kA**
Ikv max downstream:	**3,99 kA**	Ik1ftmin:	**1,34 kA**
Imagmax (maximum magnetic):	**1339 A**	Ik1fnmax:	**1,82 kA**
Ik max:	**3,99 kA**	Ip1fn:	**2,62 kA**
Ip:	**4,42 kA**	Ik1fnmin:	**1,36 kA**
Ik min:	**2,99 kA**	Zk min:	**57,9 mohm**
Ik2ftmax:	**3,53 kA**	Zk max:	**73,3 mohm**
Ip2ft:	**4,08 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**2,61 kA**	Zk2 max:	**0 mohm**
Ik2max:	**3,45 kA**	Zk1ftmin:	**129,2 mohm**
Ip2:	**4,01 kA**	Zk1ftmax:	**163,9 mohm**
Ik2min:	**2,59 kA**	Zk1fnmin:	**126,9 mohm**
Ik1ftmax:	**1,79 kA**	Zk1fnmx:	**161,6 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iSW-NA 80A**		
Protection nominal current.:	**80 A**	Overload current Ins:	**80 A**
Number of poles:	**4**	Breaking capacity BC:	**n.d.**

Identification

Unit ref-mark:	**+QUADRI SECONDARI.QELS-S2-QELS-S2 C-01**
Denomination 1:	Riserva
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**0 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**0 kW**	Input frequency:	**50 Hz**
Reactive power:	**0 kVAR**	Transferred upstream power:	**0 kVA**
Load rated current Ib:	**0 A**	Total power:	**22,2 kVA**
Power factor:	**0,9**	Available power:	**22,2 kVA**
Rated voltage:	**400 V**		

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**3,99 kA**	Ip1ft:	**2,03 kA**
Ikv max downstream:	**3,99 kA**	Ik1ftmin:	**1,34 kA**
Imagmax (maximum magnetic):	**1339 A**	Ik1fnmax:	**1,82 kA**
Ik max:	**3,99 kA**	Ip1fn:	**2,06 kA**
Ip:	**3,64 kA**	Ik1fnmin:	**1,36 kA**
Ik min:	**2,99 kA**	Zk min:	**57,9 mohm**
Ik2ftmax:	**3,53 kA**	Zk max:	**73,3 mohm**
Ip2ft:	**3,31 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**2,61 kA**	Zk2 max:	**0 mohm**
Ik2max:	**3,45 kA**	Zk1ftmin:	**129,2 mohm**
Ip2:	**3,24 kA**	Zk1ftmax:	**163,9 mohm**
Ik2min:	**2,59 kA**	Zk1fnmin:	**126,9 mohm**
Ik1ftmax:	**1,79 kA**	Zk1fnmx:	**161,6 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60N-D - 32A**		
Protection type:	**MT**		
Protection nominal current.:	**32 A**	Neutral thermic trip setting:	**32 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**448 A**
Release curve:	**D**	Breaking capacity BC:	**10 kA**
Thermic trip setting:	**32 A**	BC > Upstream short-circuit I max:	**10 >= 3,99 kA**
Magnetic trip setting:	**448 A**	Standard:	**Icu - EN 60947**
Magnetic rel. < I max. mag:	**448 < 1339 A**		

Identification

Unit ref-mark:	**+QUADRI SECONDARI.QELS-S2-QELS-S2 C-02**
Denomination 1:	QEAF-S2
Denomination 2:	Q.E. Atrio-Foyer
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**2,85 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**2,85 kW**	Input frequency:	**50 Hz**
Reactive power:	**1,38 kVAR**	Transferred upstream power:	**3,17 kVA**
Load rated current Ib:	**8,74 A**	Total power:	**34,6 kVA**
Power factor:	**0,9**	Available power:	**31,5 kVA**
Rated voltage:	**400 V**		

Cables

Formation:	**5G10**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Coat on horizontal or vertical punched dridges (or not)		
Cable designation	FTG18OM16 0,6/1 kV B2ca-s1a,d1,a1		
Insulating (line+neutral+PE):	**EPR**	K^2S^2 phase conductor:	**$2,045*10^6 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$2,045*10^6 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$2,045*10^6 A^2s$**
Line length:	**10 m**	Partial voltage drop by Ib:	**0,161 %**
Iz withstand current:	**61,5 A**	Total voltage drop by Ib:	**0,686 %**
Neutral withstand current:	**61,5 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**0,82 (Number of circuits: 3)**	Cable temperature by Ib:	**31,2 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**69,7 °C**
Total derating coefficient:	**0,82**	Ib<=In<=Iz Coordination:	**8,74<=50<=61,5 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**3,99 kA**	Ip1ft:	**2,27 kA**
Ikv max downstream:	**3,01 kA**	Ik1ftmin:	**1,03 kA**
Imagmax (maximum magnetic):	**1033 A**	Ik1fnmax:	**1,4 kA**
Ik max:	**3,01 kA**	Ip1fn:	**2,28 kA**
Ip:	**3,56 kA**	Ik1fnmin:	**1,04 kA**
Ik min:	**2,25 kA**	Zk min:	**76,8 mohm**
Ik2ftmax:	**2,66 kA**	Zk max:	**97,5 mohm**
Ip2ft:	**3,23 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**1,97 kA**	Zk2 max:	**0 mohm**
Ik2max:	**2,61 kA**	Zk1ftmin:	**167 mohm**
Ip2:	**3,17 kA**	Zk1ftmax:	**212,4 mohm**
Ik2min:	**1,95 kA**	Zk1fnmin:	**164,9 mohm**
Ik1ftmax:	**1,38 kA**	Zk1fnmx:	**210,2 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60N-D - 50A**		
Protection type:	**MT**		
Protection nominal current.:	**50 A**	Neutral thermic trip setting:	**50 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**700 A**
Release curve:	**D**	Breaking capacity BC:	**10 kA**
Thermic trip setting:	**50 A**	BC > Upstream short-circuit I max:	**10 >= 3,99 kA**
Magnetic trip setting:	**700 A**	Standard:	**Icu - EN 60947**
Magnetic rel. < I max. mag:	**700 < 1033 A**		

Identification

Unit ref-mark:	**+QUADRI SECONDARI.QELS-S2-QELS-S2 C-03**
Denomination 1:	QRTS-S2
Denomination 2:	Q.E. Regia Teatrino Sud
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**0,85 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**0,85 kW**	Input frequency:	**50 Hz**
Reactive power:	**0,412 kVAR**	Transferred upstream power:	**0,944 kVA**
Load rated current Ib:	**2,89 A**	Total power:	**22,2 kVA**
Power factor:	**0,9**	Available power:	**21,2 kVA**
Rated voltage:	**400 V**		

Cables

Formation:	**5G6**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FTG18OM16 0,6/1 kV B2ca-s1a,d1,a1		
Insulating (line+neutral+PE):	**EPR**	K^2S^2 phase conductor:	**$7,362*10^5 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$7,362*10^5 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$7,362*10^5 A^2s$**
Line length:	**50 m**	Partial voltage drop by Ib:	**0,468 %**
Iz withstand current:	**54 A**	Total voltage drop by Ib:	**0,994 %**
Neutral withstand current:	**54 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**1 (Number of circuits: 1)**	Cable temperature by Ib:	**30,2 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**51,1 °C**
Total derating coefficient:	**1**	Ib<=In<=Iz Coordination:	**2,89<=32<=54 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**3,99 kA**	Ip1ft:	**2,03 kA**
Ikv max downstream:	**1,04 kA**	Ik1ftmin:	**0,376 kA**
Imagmax (maximum magnetic):	**375,7 A**	Ik1fnmax:	**0,507 kA**
Ik max:	**1,04 kA**	Ip1fn:	**2,06 kA**
Ip:	**3,64 kA**	Ik1fnmin:	**0,377 kA**
Ik min:	**0,775 kA**	Zk min:	**221,5 mohm**
Ik2ftmax:	**0,921 kA**	Zk max:	**283,1 mohm**
Ip2ft:	**3,31 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**0,681 kA**	Zk2 max:	**0 mohm**
Ik2max:	**0,903 kA**	Zk1ftmin:	**457 mohm**
Ip2:	**3,24 kA**	Zk1ftmax:	**583,9 mohm**
Ik2min:	**0,671 kA**	Zk1fnmin:	**455,2 mohm**
Ik1ftmax:	**0,505 kA**	Zk1fnmx:	**582 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60N-D - 32A**		
Protection type:	**MT**		
Protection nominal current.:	**32 A**	Neutral thermic trip setting:	**32 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**448 A**
Release curve:	**D**	Breaking capacity BC:	**10 kA**
Thermic trip setting:	**32 A**	BC > Upstream short-circuit I max:	**10 >= 3,99 kA**
Magnetic trip setting:	**448 A**	Standard:	**Icu - EN 60947**
Magnetic rel. < I max. mag:	**Indirect contacts prot**		

Identification

Unit ref-mark:	**+QUADRI SECONDARI.QELS-S2-QELS-S2 C-04**
Denomination 1:	Riserva
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**0 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**0 kW**	Input frequency:	**50 Hz**
Reactive power:	**0 kVAR**	Transferred upstream power:	**0 kVA**
Load rated current Ib:	**0 A**	Total power:	**34,6 kVA**
Power factor:	**0,9**	Available power:	**34,6 kVA**
Rated voltage:	**400 V**		

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**3,99 kA**	Ip1ft:	**2,27 kA**
Ikv max downstream:	**3,99 kA**	Ik1ftmin:	**1,34 kA**
Imagmax (maximum magnetic):	**1339 A**	Ik1fnmax:	**1,82 kA**
Ik max:	**3,99 kA**	Ip1fn:	**2,28 kA**
Ip:	**3,56 kA**	Ik1fnmin:	**1,36 kA**
Ik min:	**2,99 kA**	Zk min:	**57,9 mohm**
Ik2ftmax:	**3,53 kA**	Zk max:	**73,3 mohm**
Ip2ft:	**3,23 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**2,61 kA**	Zk2 max:	**0 mohm**
Ik2max:	**3,45 kA**	Zk1ftmin:	**129,2 mohm**
Ip2:	**3,17 kA**	Zk1ftmax:	**163,9 mohm**
Ik2min:	**2,59 kA**	Zk1fnmin:	**126,9 mohm**
Ik1ftmax:	**1,79 kA**	Zk1fnmx:	**161,6 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60N-C - 50A**		
Protection type:	**MT**		
Protection nominal current.:	**50 A**	Neutral thermic trip setting:	**50 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**500 A**
Release curve:	**C**	Breaking capacity BC:	**10 kA**
Thermic trip setting:	**50 A**	BC > Upstream short-circuit I max:	**10 >= 3,99 kA**
Magnetic trip setting:	**500 A**	Standard:	**Icu - EN 60947**
Magnetic rel. < I max. mag:	**500 < 1339 A**		

Identification

Unit ref-mark:	**+QUADRI SECONDARI.QELS-S2-QELS-S2 C-05**
Denomination 1:	Riserva
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**0 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**0 kW**	Input frequency:	**50 Hz**
Reactive power:	**0 kVAR**	Transferred upstream power:	**0 kVA**
Load rated current Ib:	**0 A**	Total power:	**34,6 kVA**
Power factor:	**0,9**	Available power:	**34,6 kVA**
Rated voltage:	**400 V**		

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**3,99 kA**	Ip1ft:	**2,27 kA**
Ikv max downstream:	**3,99 kA**	Ik1ftmin:	**1,34 kA**
Imagmax (maximum magnetic):	**1339 A**	Ik1fnmax:	**1,82 kA**
Ik max:	**3,99 kA**	Ip1fn:	**2,28 kA**
Ip:	**3,56 kA**	Ik1fnmin:	**1,36 kA**
Ik min:	**2,99 kA**	Zk min:	**57,9 mohm**
Ik2ftmax:	**3,53 kA**	Zk max:	**73,3 mohm**
Ip2ft:	**3,23 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**2,61 kA**	Zk2 max:	**0 mohm**
Ik2max:	**3,45 kA**	Zk1ftmin:	**129,2 mohm**
Ip2:	**3,17 kA**	Zk1ftmax:	**163,9 mohm**
Ik2min:	**2,59 kA**	Zk1fnmin:	**126,9 mohm**
Ik1ftmax:	**1,79 kA**	Zk1fnmx:	**161,6 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60N-C - 50A**		
Protection type:	**MT**		
Protection nominal current.:	**50 A**	Neutral thermic trip setting:	**50 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**500 A**
Release curve:	**C**	Breaking capacity BC:	**10 kA**
Thermic trip setting:	**50 A**	BC > Upstream short-circuit I max:	**10 >= 3,99 kA**
Magnetic trip setting:	**500 A**	Standard:	**Icu - EN 60947**
Magnetic rel. < I max. mag:	**500 < 1339 A**		

Identification

Unit ref-mark:	**+QUADRI SECONDARI.QELS-S2-QELS-S2 C-06**
Denomination 1:	Riserva
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**0 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**0 kW**	Input frequency:	**50 Hz**
Reactive power:	**0 kVAR**	Transferred upstream power:	**0 kVA**
Load rated current Ib:	**0 A**	Total power:	**11,1 kVA**
Power factor:	**0,9**	Available power:	**11,1 kVA**
Rated voltage:	**400 V**		

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**3,99 kA**	Ip1ft:	**1,77 kA**
Ikv max downstream:	**3,99 kA**	Ik1ftmin:	**1,34 kA**
Imagmax (maximum magnetic):	**1339 A**	Ik1fnmax:	**1,82 kA**
Ik max:	**3,99 kA**	Ip1fn:	**1,79 kA**
Ip:	**2,72 kA**	Ik1fnmin:	**1,36 kA**
Ik min:	**2,99 kA**	Zk min:	**57,9 mohm**
Ik2ftmax:	**3,53 kA**	Zk max:	**73,3 mohm**
Ip2ft:	**2,5 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**2,61 kA**	Zk2 max:	**0 mohm**
Ik2max:	**3,45 kA**	Zk1ftmin:	**129,2 mohm**
Ip2:	**2,47 kA**	Zk1ftmax:	**163,9 mohm**
Ik2min:	**2,59 kA**	Zk1fnmin:	**126,9 mohm**
Ik1ftmax:	**1,79 kA**	Zk1fnmx:	**161,6 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60L-C - 16A**		
Protection type:	**MT**		
Protection nominal current.:	**16 A**	Neutral thermic trip setting:	**16 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**160 A**
Release curve:	**C**	Breaking capacity BC:	**25 kA**
Thermic trip setting:	**16 A**	BC > Upstream short-circuit I max:	**25 >= 3,99 kA**
Magnetic trip setting:	**160 A**	Standard:	**Icu - EN 60947**
Magnetic rel. < I max. mag:	**160 < 1339 A**		

Identification

Unit ref-mark:	**+QUADRI SECONDARI.QELN-N-QELN-N C-00**
Denomination 1:	
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**58,1 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**58,1 kW**	Input frequency:	**50 Hz**
Reactive power:	**28,4 kVAR**	Transferred upstream power:	**64,7 kVA**
Load rated current Ib:	**93,7 A**	Total power:	**110,9 kVA**
Power factor:	**0,898**	Available power:	**46,2 kVA**
Rated voltage:	**400 V**		

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**10,6 kA**	Ip1ft:	**6,12 kA**
Ikv max downstream:	**10,6 kA**	Ik1ftmin:	**3,46 kA**
Imagmax (maximum magnetic):	**3458 A**	Ik1fnmax:	**5,99 kA**
Ik max:	**10,6 kA**	Ip1fn:	**6,5 kA**
Ip:	**7,36 kA**	Ik1fnmin:	**4,66 kA**
Ik min:	**8,5 kA**	Zk min:	**21,7 mohm**
Ik2ftmax:	**9,63 kA**	Zk max:	**25,8 mohm**
Ip2ft:	**8,3 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**7,2 kA**	Zk2 max:	**0 mohm**
Ik2max:	**9,21 kA**	Zk1ftmin:	**51,9 mohm**
Ip2:	**8,09 kA**	Zk1ftmax:	**63,4 mohm**
Ik2min:	**7,36 kA**	Zk1fnmin:	**38,4 mohm**
Ik1ftmax:	**4,45 kA**	Zk1fnmx:	**46,8 mohm**

Protection

Protection manufacturer:	**ABB**		
Protection ref-mark:	**Tmax T5D**		
Protection nominal current.:	**400 A**	Overload current Ins:	**160 A**
Number of poles:	**4**	Breaking capacity BC:	**n.d.**

Identification

Unit ref-mark:	**+QUADRI SECONDARI.QELN-N-QELN-N C-01**
Denomination 1:	QEAE-N
Denomination 2:	Q.E. Aree Esterne
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**4,41 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**4,41 kW**	Input frequency:	**50 Hz**
Reactive power:	**2,19 kVAR**	Transferred upstream power:	**4,92 kVA**
Load rated current Ib:	**7,22 A**	Total power:	**55,4 kVA**
Power factor:	**0,896**	Available power:	**50,5 kVA**
Rated voltage:	**400 V**		

Cables

Formation:	**5G25**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FG16OM16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**PVC**	K^2S^2 phase conductor:	**$8,266*10^6 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$8,266*10^6 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$8,266*10^6 A^2s$**
Line length:	**15 m**	Partial voltage drop by Ib:	**0,041 %**
Iz withstand current:	**101 A**	Total voltage drop by Ib:	**0,967 %**
Neutral withstand current:	**101 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**1 (Number of circuits: 1)**	Cable temperature by Ib:	**30,2 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**55,1 °C**
Total derating coefficient:	**1**	Ib<=In<=Iz Coordination:	**7,22<=80<=101 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**10,6 kA**	Ip1ft:	**4,76 kA**
Ikv max downstream:	**7,16 kA**	Ik1ftmin:	**2,43 kA**
Imagmax (maximum magnetic):	**2426 A**	Ik1fnmax:	**3,82 kA**
Ik max:	**7,16 kA**	Ip1fn:	**4,69 kA**
Ip:	**5,15 kA**	Ik1fnmin:	**2,98 kA**
Ik min:	**5,66 kA**	Zk min:	**32,2 mohm**
Ik2ftmax:	**6,42 kA**	Zk max:	**38,8 mohm**
Ip2ft:	**5,82 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**4,86 kA**	Zk2 max:	**0 mohm**
Ik2max:	**6,2 kA**	Zk1ftmin:	**74,1 mohm**
Ip2:	**5,72 kA**	Zk1ftmax:	**90,4 mohm**
Ik2min:	**4,9 kA**	Zk1fnmin:	**60,3 mohm**
Ik1ftmax:	**3,12 kA**	Zk1fnmx:	**73,6 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**NG125N-D**		
Protection type:	**MT**		
Protection nominal current.:	**80 A**	Neutral thermic trip setting:	**80 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**1120 A**
Release curve:	**D**	Breaking capacity BC:	**25 kA**
Thermic trip setting:	**80 A**	BC > Upstream short-circuit I max:	**25 >= 10,6 kA**
Magnetic trip setting:	**1120 A**	Standard:	**Icu - EN 60947**
Magnetic rel. < I max. mag:	**1120 < 2426 A**		

Identification

Unit ref-mark:	**+QUADRI SECONDARI.QELN-N-QELN-N C-02**
Denomination 1:	QESS-N
Denomination 2:	Q.E. Sala Spettatori
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**5,51 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**5,51 kW**	Input frequency:	**50 Hz**
Reactive power:	**2,72 kVAR**	Transferred upstream power:	**6,14 kVA**
Load rated current Ib:	**8,98 A**	Total power:	**55,4 kVA**
Power factor:	**0,897**	Available power:	**49,3 kVA**
Rated voltage:	**400 V**		

Cables

Formation:	**4x(1x70)+1G35**		
Type of lay:	13 - insul. single-core cables, armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FG16M16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**HEPR**	K^2S^2 phase conductor:	**$1,002*10^8 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$1,002*10^8 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$3,795*10^7 A^2s$**
Line length:	**15 m**	Partial voltage drop by Ib:	**0,021 %**
Iz withstand current:	**279 A**	Total voltage drop by Ib:	**0,948 %**
Neutral withstand current:	**279 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**1 (Number of circuits: 1)**	Cable temperature by Ib:	**30,1 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**34,9 °C**
Total derating coefficient:	**1**	Ib<=In<=Iz Coordination:	**8,98<=80<=279 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**10,6 kA**	Ip1ft:	**4,76 kA**
Ikv max downstream:	**8,96 kA**	Ik1ftmin:	**2,77 kA**
Imagmax (maximum magnetic):	**2775 A**	Ik1fnmax:	**4,95 kA**
Ik max:	**8,96 kA**	Ip1fn:	**4,69 kA**
Ip:	**5,15 kA**	Ik1fnmin:	**3,83 kA**
Ik min:	**7,08 kA**	Zk min:	**25,8 mohm**
Ik2ftmax:	**8,09 kA**	Zk max:	**31 mohm**
Ip2ft:	**5,82 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**6,01 kA**	Zk2 max:	**0 mohm**
Ik2max:	**7,76 kA**	Zk1ftmin:	**64,1 mohm**
Ip2:	**5,72 kA**	Zk1ftmax:	**79,1 mohm**
Ik2min:	**6,13 kA**	Zk1fnmin:	**46,6 mohm**
Ik1ftmax:	**3,61 kA**	Zk1fnmx:	**57,3 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**NG125N-D**		
Protection type:	**MT**		
Protection nominal current.:	**80 A**	Neutral thermic trip setting:	**80 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**1120 A**
Release curve:	**D**	Breaking capacity BC:	**25 kA**
Thermic trip setting:	**80 A**	BC > Upstream short-circuit I max:	**25 >= 10,6 kA**
Magnetic trip setting:	**1120 A**	Standard:	**Icu - EN 60947**
Magnetic rel. < I max. mag:	**1120 < 2775 A**		

Identification

Unit ref-mark:	**+QUADRI SECONDARI.QELN-N-QELN-N C-03**
Denomination 1:	QECR-N
Denomination 2:	Q.E. Control Room
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**11 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**11 kW**	Input frequency:	**50 Hz**
Reactive power:	**5,36 kVAR**	Transferred upstream power:	**12,2 kVA**
Load rated current Ib:	**19,2 A**	Total power:	**34,6 kVA**
Power factor:	**0,898**	Available power:	**22,4 kVA**
Rated voltage:	**400 V**		

Cables

Formation:	**5G25**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FG16OM16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**PVC**	K^2S^2 phase conductor:	**$8,266*10^6 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$8,266*10^6 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$8,266*10^6 A^2s$**
Line length:	**45 m**	Partial voltage drop by Ib:	**0,367 %**
Iz withstand current:	**101 A**	Total voltage drop by Ib:	**1,29 %**
Neutral withstand current:	**101 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**1 (Number of circuits: 1)**	Cable temperature by Ib:	**31,5 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**39,8 °C**
Total derating coefficient:	**1**	Ib<=In<=Iz Coordination:	**19,2<=50<=101 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**10,6 kA**	Ip1ft:	**3,96 kA**
Ikv max downstream:	**4,22 kA**	Ik1ftmin:	**1,51 kA**
Imagmax (maximum magnetic):	**1507 A**	Ik1fnmax:	**2,18 kA**
Ik max:	**4,22 kA**	Ip1fn:	**3,95 kA**
Ip:	**4,57 kA**	Ik1fnmin:	**1,7 kA**
Ik min:	**3,32 kA**	Zk min:	**54,7 mohm**
Ik2ftmax:	**3,76 kA**	Zk max:	**66 mohm**
Ip2ft:	**5,07 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**2,88 kA**	Zk2 max:	**0 mohm**
Ik2max:	**3,66 kA**	Zk1ftmin:	**119,7 mohm**
Ip2:	**4,94 kA**	Zk1ftmax:	**145,5 mohm**
Ik2min:	**2,88 kA**	Zk1fnmin:	**105,8 mohm**
Ik1ftmax:	**1,93 kA**	Zk1fnmx:	**128,4 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60H-D - 50A**		
Protection type:	**MT**		
Protection nominal current.:	**50 A**	Neutral thermic trip setting:	**50 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**700 A**
Release curve:	**D**	Breaking capacity BC:	**15 kA**
Thermic trip setting:	**50 A**	BC > Upstream short-circuit I max:	**15 >= 10,6 kA**
Magnetic trip setting:	**700 A**	Standard:	**Icu - EN 60947**
Magnetic rel. < I max. mag:	**700 < 1507 A**		

Identification

Unit ref-mark:	**+QUADRI SECONDARI.QELN-N-QELN-N C-04**
Denomination 1:	QEPTS-N
Denomination 2:	Q.E. Piano Tecnico Sale
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**10,5 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**10,5 kW**	Input frequency:	**50 Hz**
Reactive power:	**5,09 kVAR**	Transferred upstream power:	**11,7 kVA**
Load rated current Ib:	**19,2 A**	Total power:	**22,2 kVA**
Power factor:	**0,9**	Available power:	**10,5 kVA**
Rated voltage:	**400 V**		

Cables

Formation:	**5G16**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FG16OM16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**PVC**	K^2S^2 phase conductor:	**$3,386*10^6 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$3,386*10^6 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$3,386*10^6 A^2s$**
Line length:	**100 m**	Partial voltage drop by Ib:	**1,38 %**
Iz withstand current:	**80 A**	Total voltage drop by Ib:	**2,29 %**
Neutral withstand current:	**80 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**1 (Number of circuits: 1)**	Cable temperature by Ib:	**32,3 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**36,4 °C**
Total derating coefficient:	**1**	Ib<=In<=Iz Coordination:	**19,2<=32<=80 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**10,6 kA**	Ip1ft:	**3,96 kA**
Ikv max downstream:	**1,65 kA**	Ik1ftmin:	**0,626 kA**
Imagmax (maximum magnetic):	**625,6 A**	Ik1fnmax:	**0,834 kA**
Ik max:	**1,65 kA**	Ip1fn:	**3,95 kA**
Ip:	**4,57 kA**	Ik1fnmin:	**0,656 kA**
Ik min:	**1,3 kA**	Zk min:	**139,6 mohm**
Ik2ftmax:	**1,46 kA**	Zk max:	**168,3 mohm**
Ip2ft:	**5,07 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**1,14 kA**	Zk2 max:	**0 mohm**
Ik2max:	**1,43 kA**	Zk1ftmin:	**290,3 mohm**
Ip2:	**4,94 kA**	Zk1ftmax:	**350,7 mohm**
Ik2min:	**1,13 kA**	Zk1fnmin:	**277,1 mohm**
Ik1ftmax:	**0,796 kA**	Zk1fnmx:	**334,3 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60H-D - 32A**		
Protection type:	**MT**		
Protection nominal current.:	**32 A**	Neutral thermic trip setting:	**32 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**448 A**
Release curve:	**D**	Breaking capacity BC:	**15 kA**
Thermic trip setting:	**32 A**	BC > Upstream short-circuit I max:	**15 >= 10,6 kA**
Magnetic trip setting:	**448 A**	Standard:	**Icu - EN 60947**
Magnetic rel. < I max. mag:	**448 < 625,6 A**		

Identification

Unit ref-mark:	**+QUADRI SECONDARI.QELN-N-QELN-N C-05**
Denomination 1:	QRTN-N
Denomination 2:	Q. Regia Teatrino Nord
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**7,41 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**7,41 kW**	Input frequency:	**50 Hz**
Reactive power:	**3,64 kVAR**	Transferred upstream power:	**8,25 kVA**
Load rated current Ib:	**12,5 A**	Total power:	**34,6 kVA**
Power factor:	**0,897**	Available power:	**26,4 kVA**
Rated voltage:	**400 V**		

Cables

Formation:	**5G25**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FG16OM16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**PVC**	K^2S^2 phase conductor:	**$8,266*10^6 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$8,266*10^6 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$8,266*10^6 A^2s$**
Line length:	**95 m**	Partial voltage drop by Ib:	**0,497 %**
Iz withstand current:	**101 A**	Total voltage drop by Ib:	**1,42 %**
Neutral withstand current:	**101 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**1 (Number of circuits: 1)**	Cable temperature by Ib:	**30,6 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**39,8 °C**
Total derating coefficient:	**1**	Ib<=In<=Iz Coordination:	**12,5<=50<=101 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**10,6 kA**	Ip1ft:	**3,96 kA**
Ikv max downstream:	**2,48 kA**	Ik1ftmin:	**0,921 kA**
Imagmax (maximum magnetic):	**920,9 A**	Ik1fnmax:	**1,26 kA**
Ik max:	**2,48 kA**	Ip1fn:	**3,95 kA**
Ip:	**4,57 kA**	Ik1fnmin:	**0,993 kA**
Ik min:	**1,95 kA**	Zk min:	**93,2 mohm**
Ik2ftmax:	**2,2 kA**	Zk max:	**112,2 mohm**
Ip2ft:	**5,07 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**1,71 kA**	Zk2 max:	**0 mohm**
Ik2max:	**2,15 kA**	Zk1ftmin:	**196,8 mohm**
Ip2:	**4,94 kA**	Zk1ftmax:	**238,2 mohm**
Ik2min:	**1,69 kA**	Zk1fnmin:	**182,3 mohm**
Ik1ftmax:	**1,17 kA**	Zk1fnmx:	**220,1 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60H-D - 50A**		
Protection type:	**MT**		
Protection nominal current.:	**50 A**	Neutral thermic trip setting:	**50 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**700 A**
Release curve:	**D**	Breaking capacity BC:	**15 kA**
Thermic trip setting:	**50 A**	BC > Upstream short-circuit I max:	**15 >= 10,6 kA**
Magnetic trip setting:	**700 A**	Standard:	**Icu - EN 60947**
Magnetic rel. < I max. mag:	**700 < 920,9 A**		

Identification

Unit ref-mark:	**+QUADRI SECONDARI.QELN-N-QELN-N C-06**
Denomination 1:	QECAM3-N
Denomination 2:	Q.E. Camerini P1
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**6,91 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**6,91 kW**	Input frequency:	**50 Hz**
Reactive power:	**3,4 kVAR**	Transferred upstream power:	**7,7 kVA**
Load rated current Ib:	**11,4 A**	Total power:	**22,2 kVA**
Power factor:	**0,897**	Available power:	**14,5 kVA**
Rated voltage:	**400 V**		

Cables

Formation:	**5G16**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FG16OM16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**PVC**	K^2S^2 phase conductor:	**$3,386*10^6 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$3,386*10^6 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$3,386*10^6 A^2s$**
Line length:	**95 m**	Partial voltage drop by Ib:	**0,654 %**
Iz withstand current:	**80 A**	Total voltage drop by Ib:	**1,58 %**
Neutral withstand current:	**80 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**1 (Number of circuits: 1)**	Cable temperature by Ib:	**30,8 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**36,4 °C**
Total derating coefficient:	**1**	Ib<=In<=Iz Coordination:	**11,4<=32<=80 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**10,6 kA**	Ip1ft:	**3,96 kA**
Ikv max downstream:	**1,73 kA**	Ik1ftmin:	**0,653 kA**
Imagmax (maximum magnetic):	**652,5 A**	Ik1fnmax:	**0,875 kA**
Ik max:	**1,73 kA**	Ip1fn:	**3,95 kA**
Ip:	**4,57 kA**	Ik1fnmin:	**0,689 kA**
Ik min:	**1,36 kA**	Zk min:	**133,6 mohm**
Ik2ftmax:	**1,53 kA**	Zk max:	**161 mohm**
Ip2ft:	**5,07 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**1,19 kA**	Zk2 max:	**0 mohm**
Ik2max:	**1,5 kA**	Zk1ftmin:	**278,2 mohm**
Ip2:	**4,94 kA**	Zk1ftmax:	**336,2 mohm**
Ik2min:	**1,18 kA**	Zk1fnmin:	**262,5 mohm**
Ik1ftmax:	**0,83 kA**	Zk1fnmx:	**316,5 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60H-D - 32A**		
Protection type:	**MT**		
Protection nominal current.:	**32 A**	Neutral thermic trip setting:	**32 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**448 A**
Release curve:	**D**	Breaking capacity BC:	**15 kA**
Thermic trip setting:	**32 A**	BC > Upstream short-circuit I max:	**15 >= 10,6 kA**
Magnetic trip setting:	**448 A**	Standard:	**Icu - EN 60947**
Magnetic rel. < I max. mag:	**448 < 652,5 A**		

Identification

Unit ref-mark:	**+QUADRI SECONDARI.QELN-N-QELN-N C-07**
Denomination 1:	QEREC1
Denomination 2:	Q.E. Recuperatore di Calore 1
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic terminal**		
Rated power:	**0,17 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**L1-N**
Power dimensioning:	**0,17 kW**	Input frequency:	**50 Hz**
Reactive power:	**0,082 kVAR**	Transferred upstream power:	**0,189 kVA**
Load rated current Ib:	**0,818 A**	Total power:	**1,39 kVA**
Power factor:	**0,9**	Available power:	**1,2 kVA**
Rated voltage:	**231 V**	Number of loads per unit:	**1**

Cables

Formation:	**3G2.5**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FG16OM16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**PVC**	K^2S^2 phase conductor:	**$8,266*10^4 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$8,266*10^4 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$8,266*10^4 A^2s$**
Line length:	**100 m**	Partial voltage drop by Ib:	**0,612 %**
Iz withstand current:	**30 A**	Total voltage drop by Ib:	**1,55 %**
Neutral withstand current:	**30 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**1 (Number of circuits: 1)**	Cable temperature by Ib:	**30 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**31,6 °C**
Total derating coefficient:	**1**	Ib<=In<=Iz Coordination:	**0,818<=6<=30 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**6,02 kA**	Ip1fn:	**2,06 kA**
Ikv max downstream:	**0,142 kA**	Ik1fnmin:	**0,112 kA**
Imagmax (maximum magnetic):	**111,4 A**	Zk1ftmin:	**1638 mohm**
Ik1ftmax:	**0,141 kA**	Zk1ftmax:	**1969 mohm**
Ip1ft:	**2,11 kA**	Zk1fnmin:	**1626 mohm**
Ik1ftmin:	**0,111 kA**	Zk1fnmx:	**1953 mohm**
Ik1fnmax:	**0,142 kA**		

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60N-C - 6A**		
Protection type:	**MT**		
Protection nominal current.:	**6 A**	Magnetic rel. < I max. mag:	**60 < 111,4 A**
Number of poles:	**2**	Breaking capacity BC:	**20 kA**
Release curve:	**C**	BC > Upstream short-circuit I max:	**20 >= 6,02 kA**
Thermic trip setting:	**6 A**	Standard:	**Icu - EN 60947**
Magnetic trip setting:	**60 A**		

Identification

Unit ref-mark:	**+QUADRI SECONDARI.QELN-N-QELN-N C-08**
Denomination 1:	Alimentazione Rivelazione Fumi
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic terminal**		
Rated power:	**0,24 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**L1-N**
Power dimensioning:	**0,24 kW**	Input frequency:	**50 Hz**
Reactive power:	**0,116 kVAR**	Transferred upstream power:	**0,267 kVA**
Load rated current Ib:	**1,15 A**	Total power:	**2,31 kVA**
Power factor:	**0,9**	Available power:	**2,04 kVA**
Rated voltage:	**231 V**	Number of loads per unit:	**1**

Cables

Formation:	**3G2.5**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FG16OM16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**PVC**	K^2S^2 phase conductor:	**$8,266*10^4 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$8,266*10^4 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$8,266*10^4 A^2s$**
Line length:	**50 m**	Partial voltage drop by Ib:	**0,432 %**
Iz withstand current:	**30 A**	Total voltage drop by Ib:	**1,37 %**
Neutral withstand current:	**30 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**1 (Number of circuits: 1)**	Cable temperature by Ib:	**30,1 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**34,4 °C**
Total derating coefficient:	**1**	Ib<=In<=Iz Coordination:	**1,15<=10<=30 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**6,02 kA**	Ip1fn:	**2,62 kA**
Ikv max downstream:	**0,278 kA**	Ik1fnmin:	**0,22 kA**
Imagmax (maximum magnetic):	**216,3 A**	Zk1ftmin:	**842,7 mohm**
Ik1ftmax:	**0,274 kA**	Zk1ftmax:	**1014 mohm**
Ip1ft:	**2,59 kA**	Zk1fnmin:	**829,8 mohm**
Ik1ftmin:	**0,216 kA**	Zk1fnmx:	**998,1 mohm**
Ik1fnmax:	**0,278 kA**		

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60N-C - 10A + Vigi iC60 A 0,03 A**		
Protection type:	**MT+D**		
Protection nominal current.:	**10 A**	Magnetic rel. < I max. mag:	**100 < 216,3 A**
Number of poles:	**2**	Residual trip setting:	**0,03 A**
Release curve:	**C**	Breaking capacity BC:	**20 kA**
Operational class:	**A**	BC > Upstream short-circuit I max:	**20 >= 6,02 kA**
Thermic trip setting:	**10 A**	Standard:	**Icu - EN 60947**
Magnetic trip setting:	**100 A**		

Identification

Unit ref-mark:	**+QUADRI SECONDARI.QELN-N-QELN-N C-09**
Denomination 1:	RTDRN
Denomination 2:	Rack TC Regia Nord
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic terminal**		
Rated power:	**3 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**3 kW**	Input frequency:	**50 Hz**
Reactive power:	**1,45 kVAR**	Transferred upstream power:	**3,33 kVA**
Load rated current Ib:	**4,81 A**	Total power:	**11,1 kVA**
Power factor:	**0,9**	Available power:	**7,75 kVA**
Rated voltage:	**400 V**	Number of loads per unit:	**1**

Cables

Formation:	**5G2.5**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FG16OM16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**PVC**	K^2S^2 phase conductor:	**$8,266*10^4 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$8,266*10^4 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$8,266*10^4 A^2s$**
Line length:	**10 m**	Partial voltage drop by Ib:	**0,18 %**
Iz withstand current:	**25 A**	Total voltage drop by Ib:	**1,11 %**
Neutral withstand current:	**25 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**1 (Number of circuits: 1)**	Cable temperature by Ib:	**31,5 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**46,4 °C**
Total derating coefficient:	**1**	Ib<=In<=Iz Coordination:	**4,81<=16<=25 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**10,6 kA**	Ip1ft:	**2,98 kA**
Ikv max downstream:	**2,36 kA**	Ik1ftmin:	**0,874 kA**
Imagmax (maximum magnetic):	**874 A**	Ik1fnmax:	**1,19 kA**
Ik max:	**2,36 kA**	Ip1fn:	**3,07 kA**
Ip:	**3,44 kA**	Ik1fnmin:	**0,935 kA**
Ik min:	**1,86 kA**	Zk min:	**97,8 mohm**
Ik2ftmax:	**2,09 kA**	Zk max:	**118,3 mohm**
Ip2ft:	**3,85 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**1,62 kA**	Zk2 max:	**0 mohm**
Ik2max:	**2,04 kA**	Zk1ftmin:	**207 mohm**
Ip2:	**3,77 kA**	Zk1ftmax:	**251 mohm**
Ik2min:	**1,61 kA**	Zk1fnmin:	**193,8 mohm**
Ik1ftmax:	**1,12 kA**	Zk1fnmx:	**234,6 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60L-C - 16A + Vigi iC60 A 0,03 A**		
Protection type:	**MT+D**		
Protection nominal current.:	**16 A**	Neutral thermic trip setting:	**16 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**160 A**
Release curve:	**C**	Residual trip setting:	**0,03 A**
Operational class:	**A**	Breaking capacity BC:	**25 kA**
Thermic trip setting:	**16 A**	BC > Upstream short-circuit I max:	**25 >= 10,6 kA**
Magnetic trip setting:	**160 A**	Standard:	**Icu - EN 60947**
Magnetic rel. < I max. mag:	**160 < 874 A**		

Identification

Unit ref-mark:	**+QUADRI SECONDARI.QELN-N-QELN-N C-10**
Denomination 1:	FM Ascensore 1
Denomination 2:	Lato Nord
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic terminal**		
Rated power:	**2,5 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**2,5 kW**	Input frequency:	**50 Hz**
Reactive power:	**1,21 kVAR**	Transferred upstream power:	**2,78 kVA**
Load rated current Ib:	**4,01 A**	Total power:	**11,1 kVA**
Power factor:	**0,9**	Available power:	**8,31 kVA**
Rated voltage:	**400 V**	Number of loads per unit:	**1**

Cables

Formation:	**5G4**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FG16OM16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**HEPR**	K^2S^2 phase conductor:	**$3,272*10^5 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$3,272*10^5 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$3,272*10^5 A^2s$**
Line length:	**30 m**	Partial voltage drop by Ib:	**0,298 %**
Iz withstand current:	**42 A**	Total voltage drop by Ib:	**1,22 %**
Neutral withstand current:	**42 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**1 (Number of circuits: 1)**	Cable temperature by Ib:	**30,5 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**38,7 °C**
Total derating coefficient:	**1**	Ib<=In<=Iz Coordination:	**4,01<=16<=42 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**10,6 kA**	Ip1ft:	**2,98 kA**
Ikv max downstream:	**1,39 kA**	Ik1ftmin:	**0,501 kA**
Imagmax (maximum magnetic):	**500,6 A**	Ik1fnmax:	**0,7 kA**
Ik max:	**1,39 kA**	Ip1fn:	**3,07 kA**
Ip:	**3,44 kA**	Ik1fnmin:	**0,52 kA**
Ik min:	**1,04 kA**	Zk min:	**165,8 mohm**
Ik2ftmax:	**1,23 kA**	Zk max:	**211,8 mohm**
Ip2ft:	**3,85 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**0,91 kA**	Zk2 max:	**0 mohm**
Ik2max:	**1,21 kA**	Zk1ftmin:	**343,2 mohm**
Ip2:	**3,77 kA**	Zk1ftmax:	**438,2 mohm**
Ik2min:	**0,897 kA**	Zk1fnmin:	**330,1 mohm**
Ik1ftmax:	**0,673 kA**	Zk1fnmx:	**422 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60L-C - 16A + Vigi iC60 A 0,03 A**		
Protection type:	**MT+D**		
Protection nominal current.:	**16 A**	Neutral thermic trip setting:	**16 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**160 A**
Release curve:	**C**	Residual trip setting:	**0,03 A**
Operational class:	**A**	Breaking capacity BC:	**25 kA**
Thermic trip setting:	**16 A**	BC > Upstream short-circuit I max:	**25 >= 10,6 kA**
Magnetic trip setting:	**160 A**	Standard:	**Icu - EN 60947**
Magnetic rel. < I max. mag:	**160 < 500,6 A**		

Identification

Unit ref-mark:	**+QUADRI SECONDARI.QELN-N-QELN-N C-11**
Denomination 1:	Luce Ascensore 1
Denomination 2:	Lato Nord
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic terminal**		
Rated power:	**0,5 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**L3-N**
Power dimensioning:	**0,5 kW**	Input frequency:	**50 Hz**
Reactive power:	**0,242 kVAR**	Transferred upstream power:	**0,556 kVA**
Load rated current Ib:	**2,41 A**	Total power:	**3,7 kVA**
Power factor:	**0,9**	Available power:	**3,14 kVA**
Rated voltage:	**231 V**	Number of loads per unit:	**1**

Cables

Formation:	**3G4**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FG16OM16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**HEPR**	K^2S^2 phase conductor:	**$3,272*10^5 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$3,272*10^5 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$3,272*10^5 A^2s$**
Line length:	**30 m**	Partial voltage drop by Ib:	**0,357 %**
Iz withstand current:	**49 A**	Total voltage drop by Ib:	**1,31 %**
Neutral withstand current:	**49 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**1 (Number of circuits: 1)**	Cable temperature by Ib:	**30,1 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**36,4 °C**
Total derating coefficient:	**1**	Ib<=In<=Iz Coordination:	**2,41<=16<=49 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**6,02 kA**	Ip1fn:	**2,96 kA**
Ikv max downstream:	**0,7 kA**	Ik1fnmin:	**0,52 kA**
Imagmax (maximum magnetic):	**500,6 A**	Zk1ftmin:	**343,2 mohm**
Ik1ftmax:	**0,673 kA**	Zk1ftmax:	**438,2 mohm**
Ip1ft:	**3,02 kA**	Zk1fnmin:	**330,1 mohm**
Ik1ftmin:	**0,501 kA**	Zk1fnmx:	**422 mohm**
Ik1fnmax:	**0,7 kA**		

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60N-C - 16A + Vigi iC60 A 0,03 A**		
Protection type:	**MT+D**		
Protection nominal current.:	**16 A**	Magnetic rel. < I max. mag:	**160 < 500,6 A**
Number of poles:	**2**	Residual trip setting:	**0,03 A**
Release curve:	**C**	Breaking capacity BC:	**20 kA**
Operational class:	**A**	BC > Upstream short-circuit I max:	**20 >= 6,02 kA**
Thermic trip setting:	**16 A**	Standard:	**Icu - EN 60947**
Magnetic trip setting:	**160 A**		

Identification

Unit ref-mark:	**+QUADRI SECONDARI.QELN-N-QELN-N C-12**
Denomination 1:	FM Ascensore 2
Denomination 2:	Lato Nord
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic terminal**		
Rated power:	**2,5 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**2,5 kW**	Input frequency:	**50 Hz**
Reactive power:	**1,21 kVAR**	Transferred upstream power:	**2,78 kVA**
Load rated current Ib:	**4,01 A**	Total power:	**11,1 kVA**
Power factor:	**0,9**	Available power:	**8,31 kVA**
Rated voltage:	**400 V**	Number of loads per unit:	**1**

Cables

Formation:	**5G4**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FG16OM16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**HEPR**	K^2S^2 phase conductor:	**$3,272*10^5 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$3,272*10^5 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$3,272*10^5 A^2s$**
Line length:	**30 m**	Partial voltage drop by Ib:	**0,298 %**
Iz withstand current:	**42 A**	Total voltage drop by Ib:	**1,22 %**
Neutral withstand current:	**42 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**1 (Number of circuits: 1)**	Cable temperature by Ib:	**30,5 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**38,7 °C**
Total derating coefficient:	**1**	Ib<=In<=Iz Coordination:	**4,01<=16<=42 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**10,6 kA**	Ip1ft:	**2,98 kA**
Ikv max downstream:	**1,39 kA**	Ik1ftmin:	**0,501 kA**
Imagmax (maximum magnetic):	**500,6 A**	Ik1fnmax:	**0,7 kA**
Ik max:	**1,39 kA**	Ip1fn:	**3,07 kA**
Ip:	**3,44 kA**	Ik1fnmin:	**0,52 kA**
Ik min:	**1,04 kA**	Zk min:	**165,8 mohm**
Ik2ftmax:	**1,23 kA**	Zk max:	**211,8 mohm**
Ip2ft:	**3,85 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**0,91 kA**	Zk2 max:	**0 mohm**
Ik2max:	**1,21 kA**	Zk1ftmin:	**343,2 mohm**
Ip2:	**3,77 kA**	Zk1ftmax:	**438,2 mohm**
Ik2min:	**0,897 kA**	Zk1fnmin:	**330,1 mohm**
Ik1ftmax:	**0,673 kA**	Zk1fnmx:	**422 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60L-C - 16A + Vigi iC60 A 0,03 A**		
Protection type:	**MT+D**		
Protection nominal current.:	**16 A**	Neutral thermic trip setting:	**16 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**160 A**
Release curve:	**C**	Residual trip setting:	**0,03 A**
Operational class:	**A**	Breaking capacity BC:	**25 kA**
Thermic trip setting:	**16 A**	BC > Upstream short-circuit I max:	**25 >= 10,6 kA**
Magnetic trip setting:	**160 A**	Standard:	**Icu - EN 60947**
Magnetic rel. < I max. mag:	**160 < 500,6 A**		

Identification

Unit ref-mark:	**+QUADRI SECONDARI.QELN-N-QELN-N C-13**
Denomination 1:	Luce Ascensore 2
Denomination 2:	Lato Nord
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic terminal**		
Rated power:	**0,5 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**L2-N**
Power dimensioning:	**0,5 kW**	Input frequency:	**50 Hz**
Reactive power:	**0,242 kVAR**	Transferred upstream power:	**0,556 kVA**
Load rated current Ib:	**2,41 A**	Total power:	**3,7 kVA**
Power factor:	**0,9**	Available power:	**3,14 kVA**
Rated voltage:	**231 V**	Number of loads per unit:	**1**

Cables

Formation:	**3G4**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FG16OM16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**HEPR**	K^2S^2 phase conductor:	**$3,272*10^5 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$3,272*10^5 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$3,272*10^5 A^2s$**
Line length:	**30 m**	Partial voltage drop by Ib:	**0,357 %**
Iz withstand current:	**49 A**	Total voltage drop by Ib:	**1,31 %**
Neutral withstand current:	**49 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**1 (Number of circuits: 1)**	Cable temperature by Ib:	**30,1 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**36,4 °C**
Total derating coefficient:	**1**	Ib<=In<=Iz Coordination:	**2,41<=16<=49 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**6,02 kA**	Ip1fn:	**2,96 kA**
Ikv max downstream:	**0,7 kA**	Ik1fnmin:	**0,52 kA**
Imagmax (maximum magnetic):	**500,6 A**	Zk1ftmin:	**343,2 mohm**
Ik1ftmax:	**0,673 kA**	Zk1ftmax:	**438,2 mohm**
Ip1ft:	**3,02 kA**	Zk1fnmin:	**330,1 mohm**
Ik1ftmin:	**0,501 kA**	Zk1fnmx:	**422 mohm**
Ik1fnmax:	**0,7 kA**		

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60N-C - 16A + Vigi iC60 A 0,03 A**		
Protection type:	**MT+D**		
Protection nominal current.:	**16 A**	Magnetic rel. < I max. mag:	**160 < 500,6 A**
Number of poles:	**2**	Residual trip setting:	**0,03 A**
Release curve:	**C**	Breaking capacity BC:	**20 kA**
Operational class:	**A**	BC > Upstream short-circuit I max:	**20 >= 6,02 kA**
Thermic trip setting:	**16 A**	Standard:	**Icu - EN 60947**
Magnetic trip setting:	**160 A**		

Identification

Unit ref-mark:	**+QUADRI SECONDARI.QELN-N-QELN-N C-14**
Denomination 1:	FM Ascensore
Denomination 2:	Lato Nord
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic terminal**		
Rated power:	**3 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**3 kW**	Input frequency:	**50 Hz**
Reactive power:	**1,45 kVAR**	Transferred upstream power:	**3,33 kVA**
Load rated current Ib:	**4,81 A**	Total power:	**11,1 kVA**
Power factor:	**0,9**	Available power:	**7,75 kVA**
Rated voltage:	**400 V**	Number of loads per unit:	**1**

Cables

Formation:	**5G4**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FG16OM16 0.6/1 kV Cca-s1b,d1,a1		
Insulating (line+neutral+PE):	**HEPR**	K^2S^2 phase conductor:	**$3,272*10^5 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$3,272*10^5 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$3,272*10^5 A^2s$**
Line length:	**30 m**	Partial voltage drop by Ib:	**0,357 %**
Iz withstand current:	**42 A**	Total voltage drop by Ib:	**1,28 %**
Neutral withstand current:	**42 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**1 (Number of circuits: 1)**	Cable temperature by Ib:	**30,8 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**38,7 °C**
Total derating coefficient:	**1**	Ib<=In<=Iz Coordination:	**4,81<=16<=42 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**10,6 kA**	Ip1ft:	**2,98 kA**
Ikv max downstream:	**1,39 kA**	Ik1ftmin:	**0,501 kA**
Imagmax (maximum magnetic):	**500,6 A**	Ik1fnmax:	**0,7 kA**
Ik max:	**1,39 kA**	Ip1fn:	**3,07 kA**
Ip:	**3,44 kA**	Ik1fnmin:	**0,52 kA**
Ik min:	**1,04 kA**	Zk min:	**165,8 mohm**
Ik2ftmax:	**1,23 kA**	Zk max:	**211,8 mohm**
Ip2ft:	**3,85 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**0,91 kA**	Zk2 max:	**0 mohm**
Ik2max:	**1,21 kA**	Zk1ftmin:	**343,2 mohm**
Ip2:	**3,77 kA**	Zk1ftmax:	**438,2 mohm**
Ik2min:	**0,897 kA**	Zk1fnmin:	**330,1 mohm**
Ik1ftmax:	**0,673 kA**	Zk1fnmx:	**422 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60L-C - 16A + Vigi iC60 A 0,03 A**		
Protection type:	**MT+D**		
Protection nominal current.:	**16 A**	Neutral thermic trip setting:	**16 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**160 A**
Release curve:	**C**	Residual trip setting:	**0,03 A**
Operational class:	**A**	Breaking capacity BC:	**25 kA**
Thermic trip setting:	**16 A**	BC > Upstream short-circuit I max:	**25 >= 10,6 kA**
Magnetic trip setting:	**160 A**	Standard:	**Icu - EN 60947**
Magnetic rel. < I max. mag:	**160 < 500,6 A**		

Identification

Unit ref-mark:	**+QUADRI SECONDARI.QELN-N-QELN-N C-15**
Denomination 1:	Riserva
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**0 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**0 kW**	Input frequency:	**50 Hz**
Reactive power:	**0 kVAR**	Transferred upstream power:	**0 kVA**
Load rated current Ib:	**0 A**	Total power:	**22,2 kVA**
Power factor:	**0,9**	Available power:	**22,2 kVA**
Rated voltage:	**400 V**		

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**10,6 kA**	Ip1ft:	**6,12 kA**
Ikv max downstream:	**10,6 kA**	Ik1ftmin:	**3,46 kA**
Imagmax (maximum magnetic):	**3458 A**	Ik1fnmax:	**6,02 kA**
Ik max:	**10,6 kA**	Ip1fn:	**6,5 kA**
Ip:	**7,36 kA**	Ik1fnmin:	**4,69 kA**
Ik min:	**8,5 kA**	Zk min:	**21,7 mohm**
Ik2ftmax:	**9,63 kA**	Zk max:	**25,8 mohm**
Ip2ft:	**8,3 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**7,2 kA**	Zk2 max:	**0 mohm**
Ik2max:	**9,21 kA**	Zk1ftmin:	**51,9 mohm**
Ip2:	**8,09 kA**	Zk1ftmax:	**63,4 mohm**
Ik2min:	**7,36 kA**	Zk1fnmin:	**38,4 mohm**
Ik1ftmax:	**4,45 kA**	Zk1fnmx:	**46,8 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**COMPACT NSX160F + TM32D NSX**		
Protection type:	**MT**		
Protection nominal current.:	**160 A**	Neutral thermic trip setting:	**32 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**400 A**
Thermic trip setting:	**32 A**	Breaking capacity BC:	**36 kA**
Magnetic trip setting:	**400 A**	BC > Upstream short-circuit I max:	**36 >= 10,6 kA**
Magnetic rel. < I max. mag:	**400 < 3458 A**	Standard:	**Icu - EN 60947**

Identification

Unit ref-mark:	**+QUADRI SECONDARI.QELN-N-QELN-N C-16**
Denomination 1:	Riserva
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**0 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**0 kW**	Input frequency:	**50 Hz**
Reactive power:	**0 kVAR**	Transferred upstream power:	**0 kVA**
Load rated current Ib:	**0 A**	Total power:	**22,2 kVA**
Power factor:	**0,9**	Available power:	**22,2 kVA**
Rated voltage:	**400 V**		

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**10,6 kA**	Ip1ft:	**6,12 kA**
Ikv max downstream:	**10,6 kA**	Ik1ftmin:	**3,46 kA**
Imagmax (maximum magnetic):	**3458 A**	Ik1fnmax:	**6,02 kA**
Ik max:	**10,6 kA**	Ip1fn:	**6,5 kA**
Ip:	**7,36 kA**	Ik1fnmin:	**4,69 kA**
Ik min:	**8,5 kA**	Zk min:	**21,7 mohm**
Ik2ftmax:	**9,63 kA**	Zk max:	**25,8 mohm**
Ip2ft:	**8,3 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**7,2 kA**	Zk2 max:	**0 mohm**
Ik2max:	**9,21 kA**	Zk1ftmin:	**51,9 mohm**
Ip2:	**8,09 kA**	Zk1ftmax:	**63,4 mohm**
Ik2min:	**7,36 kA**	Zk1fnmin:	**38,4 mohm**
Ik1ftmax:	**4,45 kA**	Zk1fnmx:	**46,8 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**COMPACT NSX160F + TM32D NSX**		
Protection type:	**MT**		
Protection nominal current.:	**160 A**	Neutral thermic trip setting:	**32 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**400 A**
Thermic trip setting:	**32 A**	Breaking capacity BC:	**36 kA**
Magnetic trip setting:	**400 A**	BC > Upstream short-circuit I max:	**36 >= 10,6 kA**
Magnetic rel. < I max. mag:	**400 < 3458 A**	Standard:	**Icu - EN 60947**

Identification

Unit ref-mark:	**+QUADRI SECONDARI.QELN-N-QELN-N C-17**
Denomination 1:	Riserva
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**0 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**0 kW**	Input frequency:	**50 Hz**
Reactive power:	**0 kVAR**	Transferred upstream power:	**0 kVA**
Load rated current Ib:	**0 A**	Total power:	**22,2 kVA**
Power factor:	**0,9**	Available power:	**22,2 kVA**
Rated voltage:	**400 V**		

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**10,6 kA**	Ip1ft:	**6,12 kA**
Ikv max downstream:	**10,6 kA**	Ik1ftmin:	**3,46 kA**
Imagmax (maximum magnetic):	**3458 A**	Ik1fnmax:	**6,02 kA**
Ik max:	**10,6 kA**	Ip1fn:	**6,5 kA**
Ip:	**7,36 kA**	Ik1fnmin:	**4,69 kA**
Ik min:	**8,5 kA**	Zk min:	**21,7 mohm**
Ik2ftmax:	**9,63 kA**	Zk max:	**25,8 mohm**
Ip2ft:	**8,3 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**7,2 kA**	Zk2 max:	**0 mohm**
Ik2max:	**9,21 kA**	Zk1ftmin:	**51,9 mohm**
Ip2:	**8,09 kA**	Zk1ftmax:	**63,4 mohm**
Ik2min:	**7,36 kA**	Zk1fnmin:	**38,4 mohm**
Ik1ftmax:	**4,45 kA**	Zk1fnmx:	**46,8 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**COMPACT NSX160F + TM32D NSX**		
Protection type:	**MT**		
Protection nominal current.:	**160 A**	Neutral thermic trip setting:	**32 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**400 A**
Thermic trip setting:	**32 A**	Breaking capacity BC:	**36 kA**
Magnetic trip setting:	**400 A**	BC > Upstream short-circuit I max:	**36 >= 10,6 kA**
Magnetic rel. < I max. mag:	**400 < 3458 A**	Standard:	**Icu - EN 60947**

Identification

Unit ref-mark:	**+QUADRI SECONDARI.QELN-S1-QELN-S1 C-00**
Denomination 1:	QESS-S1
Denomination 2:	Q.E. Sala Spettatori
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**1,6 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**1,6 kW**	Input frequency:	**50 Hz**
Reactive power:	**0,775 kVAR**	Transferred upstream power:	**1,78 kVA**
Load rated current Ib:	**2,81 A**	Total power:	**55,4 kVA**
Power factor:	**0,9**	Available power:	**53,6 kVA**
Rated voltage:	**400 V**		

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**9,89 kA**	Ip1ft:	**4,44 kA**
Ikv max downstream:	**9,89 kA**	Ik1ftmin:	**3,06 kA**
Imagmax (maximum magnetic):	**3061 A**	Ik1fnmax:	**4,22 kA**
Ik max:	**9,89 kA**	Ip1fn:	**4,56 kA**
Ip:	**5,79 kA**	Ik1fnmin:	**3,19 kA**
Ik min:	**7,68 kA**	Zk min:	**23,4 mohm**
Ik2ftmax:	**8,86 kA**	Zk max:	**28,6 mohm**
Ip2ft:	**5,55 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**6,57 kA**	Zk2 max:	**0 mohm**
Ik2max:	**8,56 kA**	Zk1ftmin:	**57,6 mohm**
Ip2:	**5,48 kA**	Zk1ftmax:	**71,7 mohm**
Ik2min:	**6,65 kA**	Zk1fnmin:	**54,7 mohm**
Ik1ftmax:	**4,01 kA**	Zk1fnmx:	**68,9 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iSW-NA 80A**		
Protection nominal current.:	**80 A**	Overload current Ins:	**80 A**
Number of poles:	**4**	Breaking capacity BC:	**n.d.**

Identification

Unit ref-mark:	**+QUADRI SECONDARI.QELN-S1-QELN-S1 C-01**
Denomination 1:	QESS-S1
Denomination 2:	Q.E. Sala Spettatori
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**0,7 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**0,7 kW**	Input frequency:	**50 Hz**
Reactive power:	**0,339 kVAR**	Transferred upstream power:	**0,778 kVA**
Load rated current Ib:	**1,44 A**	Total power:	**22,2 kVA**
Power factor:	**0,9**	Available power:	**21,4 kVA**
Rated voltage:	**400 V**		

Cables

Formation:	**5G10**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Coat on horizontal or vertical punched dridges (or not)		
Cable designation	FTG18OM16 0,6/1 kV B2ca-s1a,d1,a1		
Insulating (line+neutral+PE):	**EPR**	K^2S^2 phase conductor:	**$2,045*10^6 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$2,045*10^6 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$2,045*10^6 A^2s$**
Line length:	**15 m**	Partial voltage drop by Ib:	**0,028 %**
Iz withstand current:	**61,5 A**	Total voltage drop by Ib:	**0,327 %**
Neutral withstand current:	**61,5 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**0,82 (Number of circuits: 3)**	Cable temperature by Ib:	**30 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**46,2 °C**
Total derating coefficient:	**0,82**	Ib<=In<=Iz Coordination:	**1,44<=32<=61,5 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**9,89 kA**	Ip1ft:	**3,57 kA**
Ikv max downstream:	**4,55 kA**	Ik1ftmin:	**1,53 kA**
Imagmax (maximum magnetic):	**1527 A**	Ik1fnmax:	**2,08 kA**
Ik max:	**4,55 kA**	Ip1fn:	**3,68 kA**
Ip:	**5,02 kA**	Ik1fnmin:	**1,55 kA**
Ik min:	**3,42 kA**	Zk min:	**50,7 mohm**
Ik2ftmax:	**4,04 kA**	Zk max:	**64,1 mohm**
Ip2ft:	**4,76 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**2,98 kA**	Zk2 max:	**0 mohm**
Ik2max:	**3,94 kA**	Zk1ftmin:	**113,4 mohm**
Ip2:	**4,68 kA**	Zk1ftmax:	**143,7 mohm**
Ik2min:	**2,96 kA**	Zk1fnmin:	**111,1 mohm**
Ik1ftmax:	**2,04 kA**	Zk1fnmx:	**141,4 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60L-C - 32A**		
Protection type:	**MT**		
Protection nominal current.:	**32 A**	Neutral thermic trip setting:	**32 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**320 A**
Release curve:	**C**	Breaking capacity BC:	**20 kA**
Thermic trip setting:	**32 A**	BC > Upstream short-circuit I max:	**20 >= 9,89 kA**
Magnetic trip setting:	**320 A**	Standard:	**Icu - EN 60947**
Magnetic rel. < I max. mag:	**320 < 1527 A**		

Identification

Unit ref-mark:	**+QUADRI SECONDARI.QELN-S1-QELN-S1 C-02**
Denomination 1:	QRTN-S1
Denomination 2:	Q. Regia Teatrino Nord
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**0,45 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**0,45 kW**	Input frequency:	**50 Hz**
Reactive power:	**0,218 kVAR**	Transferred upstream power:	**0,5 kVA**
Load rated current Ib:	**0,722 A**	Total power:	**22,2 kVA**
Power factor:	**0,9**	Available power:	**21,7 kVA**
Rated voltage:	**400 V**		

Cables

Formation:	**5G10**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Coat on horizontal or vertical punched dridges (or not)		
Cable designation	FTG18OM16 0,6/1 kV B2ca-s1a,d1,a1		
Insulating (line+neutral+PE):	**EPR**	K^2S^2 phase conductor:	**$2,045*10^6 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$2,045*10^6 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$2,045*10^6 A^2s$**
Line length:	**15 m**	Partial voltage drop by Ib:	**0,01 %**
Iz withstand current:	**61,5 A**	Total voltage drop by Ib:	**0,31 %**
Neutral withstand current:	**61,5 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**0,82 (Number of circuits: 3)**	Cable temperature by Ib:	**30 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**46,2 °C**
Total derating coefficient:	**0,82**	Ib<=In<=Iz Coordination:	**0,722<=32<=61,5 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**9,89 kA**	Ip1ft:	**3,57 kA**
Ikv max downstream:	**4,55 kA**	Ik1ftmin:	**1,53 kA**
Imagmax (maximum magnetic):	**1527 A**	Ik1fnmax:	**2,08 kA**
Ik max:	**4,55 kA**	Ip1fn:	**3,68 kA**
Ip:	**5,02 kA**	Ik1fnmin:	**1,55 kA**
Ik min:	**3,42 kA**	Zk min:	**50,7 mohm**
Ik2ftmax:	**4,04 kA**	Zk max:	**64,1 mohm**
Ip2ft:	**4,76 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**2,98 kA**	Zk2 max:	**0 mohm**
Ik2max:	**3,94 kA**	Zk1ftmin:	**113,4 mohm**
Ip2:	**4,68 kA**	Zk1ftmax:	**143,7 mohm**
Ik2min:	**2,96 kA**	Zk1fnmin:	**111,1 mohm**
Ik1ftmax:	**2,04 kA**	Zk1fnmx:	**141,4 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60L-C - 32A**		
Protection type:	**MT**		
Protection nominal current.:	**32 A**	Neutral thermic trip setting:	**32 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**320 A**
Release curve:	**C**	Breaking capacity BC:	**20 kA**
Thermic trip setting:	**32 A**	BC > Upstream short-circuit I max:	**20 >= 9,89 kA**
Magnetic trip setting:	**320 A**	Standard:	**Icu - EN 60947**
Magnetic rel. < I max. mag:	**320 < 1527 A**		

Identification

Unit ref-mark:	**+QUADRI SECONDARI.QELN-S1-QELN-S1 C-03**
Denomination 1:	QESD-S1
Denomination 2:	Q.E. Sala Danza
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**0 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**0 kW**	Input frequency:	**50 Hz**
Reactive power:	**0 kVAR**	Transferred upstream power:	**0 kVA**
Load rated current Ib:	**0 A**	Total power:	**22,2 kVA**
Power factor:	**0,9**	Available power:	**22,2 kVA**
Rated voltage:	**400 V**		

Cables

Formation:	**5G10**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Coat on horizontal or vertical punched dridges (or not)		
Cable designation	FTG18OM16 0,6/1 kV B2ca-s1a,d1,a1		
Insulating (line+neutral+PE):	**EPR**	K^2S^2 phase conductor:	**2,045*10 ^{6}A²s**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**2,045*10 ^{6}A²s**
Conductor material:	**COPPER**	K^2S^2 PE:	**2,045*10 ^{6}A²s**
Line length:	**45 m**	Partial voltage drop by Ib:	**0 %**
Iz withstand current:	**61,5 A**	Total voltage drop by Ib:	**0,299 %**
Neutral withstand current:	**61,5 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**0,82 (Number of circuits: 3)**	Cable temperature by Ib:	**30 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**46,2 °C**
Total derating coefficient:	**0,82**	Ib<=In<=Iz Coordination:	**0<=32<=61,5 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**9,89 kA**	Ip1ft:	**3,57 kA**
Ikv max downstream:	**2,15 kA**	Ik1ftmin:	**0,758 kA**
Imagmax (maximum magnetic):	**757,7 A**	Ik1fnmax:	**1,03 kA**
Ik max:	**2,15 kA**	Ip1fn:	**3,68 kA**
Ip:	**5,02 kA**	Ik1fnmin:	**0,763 kA**
Ik min:	**1,6 kA**	Zk min:	**107,4 mohm**
Ik2ftmax:	**1,9 kA**	Zk max:	**136,9 mohm**
Ip2ft:	**4,76 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**1,4 kA**	Zk2 max:	**0 mohm**
Ik2max:	**1,86 kA**	Zk1ftmin:	**227,2 mohm**
Ip2:	**4,68 kA**	Zk1ftmax:	**289,6 mohm**
Ik2min:	**1,39 kA**	Zk1fnmin:	**225,2 mohm**
Ik1ftmax:	**1,02 kA**	Zk1fnmx:	**287,6 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60L-C - 32A**		
Protection type:	**MT**		
Protection nominal current.:	**32 A**	Neutral thermic trip setting:	**32 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**320 A**
Release curve:	**C**	Breaking capacity BC:	**20 kA**
Thermic trip setting:	**32 A**	BC > Upstream short-circuit I max:	**20 >= 9,89 kA**
Magnetic trip setting:	**320 A**	Standard:	**Icu - EN 60947**
Magnetic rel. < I max. mag:	**320 < 757,7 A**		

Identification

Unit ref-mark:	**+QUADRI SECONDARI.QELN-S1-QELN-S1 C-04**
Denomination 1:	QECAM3-S1
Denomination 2:	Q.E.Camerini PT
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**0,45 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**0,45 kW**	Input frequency:	**50 Hz**
Reactive power:	**0,218 kVAR**	Transferred upstream power:	**0,5 kVA**
Load rated current Ib:	**0,882 A**	Total power:	**22,2 kVA**
Power factor:	**0,9**	Available power:	**21,7 kVA**
Rated voltage:	**400 V**		

Cables

Formation:	**5G10**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FTG18OM16 0,6/1 kV B2ca-s1a,d1,a1		
Insulating (line+neutral+PE):	**EPR**	K^2S^2 phase conductor:	**$2,045*10^6 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$2,045*10^6 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$2,045*10^6 A^2s$**
Line length:	**50 m**	Partial voltage drop by Ib:	**0,054 %**
Iz withstand current:	**75 A**	Total voltage drop by Ib:	**0,32 %**
Neutral withstand current:	**75 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**1 (Number of circuits: 1)**	Cable temperature by Ib:	**30 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**40,9 °C**
Total derating coefficient:	**1**	Ib<=In<=Iz Coordination:	**0,882<=32<=75 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**9,89 kA**	Ip1ft:	**3,57 kA**
Ikv max downstream:	**1,98 kA**	Ik1ftmin:	**0,699 kA**
Imagmax (maximum magnetic):	**698,9 A**	Ik1fnmax:	**0,946 kA**
Ik max:	**1,98 kA**	Ip1fn:	**3,68 kA**
Ip:	**5,02 kA**	Ik1fnmin:	**0,703 kA**
Ik min:	**1,47 kA**	Zk min:	**116,9 mohm**
Ik2ftmax:	**1,75 kA**	Zk max:	**149 mohm**
Ip2ft:	**4,76 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**1,29 kA**	Zk2 max:	**0 mohm**
Ik2max:	**1,71 kA**	Zk1ftmin:	**246,2 mohm**
Ip2:	**4,68 kA**	Zk1ftmax:	**313,9 mohm**
Ik2min:	**1,27 kA**	Zk1fnmin:	**244,3 mohm**
Ik1ftmax:	**0,938 kA**	Zk1fnmx:	**311,9 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60L-C - 32A**		
Protection type:	**MT**		
Protection nominal current.:	**32 A**	Neutral thermic trip setting:	**32 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**320 A**
Release curve:	**C**	Breaking capacity BC:	**20 kA**
Thermic trip setting:	**32 A**	BC > Upstream short-circuit I max:	**20 >= 9,89 kA**
Magnetic trip setting:	**320 A**	Standard:	**Icu - EN 60947**
Magnetic rel. < I max. mag:	**320 < 698,9 A**		

Identification

Unit ref-mark:	**+QUADRI SECONDARI.QELN-S1-QELN-S1 C-05**
Denomination 1:	Riserva
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**0 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**0 kW**	Input frequency:	**50 Hz**
Reactive power:	**0 kVAR**	Transferred upstream power:	**0 kVA**
Load rated current Ib:	**0 A**	Total power:	**22,2 kVA**
Power factor:	**0,9**	Available power:	**22,2 kVA**
Rated voltage:	**400 V**		

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**9,89 kA**	Ip1ft:	**3,57 kA**
Ikv max downstream:	**9,89 kA**	Ik1ftmin:	**3,06 kA**
Imagmax (maximum magnetic):	**3061 A**	Ik1fnmax:	**4,22 kA**
Ik max:	**9,89 kA**	Ip1fn:	**3,68 kA**
Ip:	**5,02 kA**	Ik1fnmin:	**3,19 kA**
Ik min:	**7,68 kA**	Zk min:	**23,4 mohm**
Ik2ftmax:	**8,86 kA**	Zk max:	**28,6 mohm**
Ip2ft:	**4,76 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**6,57 kA**	Zk2 max:	**0 mohm**
Ik2max:	**8,56 kA**	Zk1ftmin:	**57,6 mohm**
Ip2:	**4,68 kA**	Zk1ftmax:	**71,7 mohm**
Ik2min:	**6,65 kA**	Zk1fnmin:	**54,7 mohm**
Ik1ftmax:	**4,01 kA**	Zk1fnmx:	**68,9 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60L-C - 32A**		
Protection type:	**MT**		
Protection nominal current.:	**32 A**	Neutral thermic trip setting:	**32 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**320 A**
Release curve:	**C**	Breaking capacity BC:	**20 kA**
Thermic trip setting:	**32 A**	BC > Upstream short-circuit I max:	**20 >= 9,89 kA**
Magnetic trip setting:	**320 A**	Standard:	**Icu - EN 60947**
Magnetic rel. < I max. mag:	**320 < 3061 A**		

Identification

Unit ref-mark:	**+QUADRI SECONDARI.QELN-S1-QELN-S1 C-06**
Denomination 1:	Riserva
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**0 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**0 kW**	Input frequency:	**50 Hz**
Reactive power:	**0 kVAR**	Transferred upstream power:	**0 kVA**
Load rated current Ib:	**0 A**	Total power:	**22,2 kVA**
Power factor:	**0,9**	Available power:	**22,2 kVA**
Rated voltage:	**400 V**		

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**9,89 kA**	Ip1ft:	**3,57 kA**
Ikv max downstream:	**9,89 kA**	Ik1ftmin:	**3,06 kA**
Imagmax (maximum magnetic):	**3061 A**	Ik1fnmax:	**4,22 kA**
Ik max:	**9,89 kA**	Ip1fn:	**3,68 kA**
Ip:	**5,02 kA**	Ik1fnmin:	**3,19 kA**
Ik min:	**7,68 kA**	Zk min:	**23,4 mohm**
Ik2ftmax:	**8,86 kA**	Zk max:	**28,6 mohm**
Ip2ft:	**4,76 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**6,57 kA**	Zk2 max:	**0 mohm**
Ik2max:	**8,56 kA**	Zk1ftmin:	**57,6 mohm**
Ip2:	**4,68 kA**	Zk1ftmax:	**71,7 mohm**
Ik2min:	**6,65 kA**	Zk1fnmin:	**54,7 mohm**
Ik1ftmax:	**4,01 kA**	Zk1fnmx:	**68,9 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60L-C - 32A**		
Protection type:	**MT**		
Protection nominal current.:	**32 A**	Neutral thermic trip setting:	**32 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**320 A**
Release curve:	**C**	Breaking capacity BC:	**20 kA**
Thermic trip setting:	**32 A**	BC > Upstream short-circuit I max:	**20 >= 9,89 kA**
Magnetic trip setting:	**320 A**	Standard:	**Icu - EN 60947**
Magnetic rel. < I max. mag:	**320 < 3061 A**		

Identification

Unit ref-mark:	**+QUADRI SECONDARI.QELN-S2-QELN-S2 C-00**
Denomination 1:	
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**5,01 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**5,01 kW**	Input frequency:	**50 Hz**
Reactive power:	**2,43 kVAR**	Transferred upstream power:	**5,57 kVA**
Load rated current Ib:	**16,3 A**	Total power:	**55,4 kVA**
Power factor:	**0,9**	Available power:	**49,9 kVA**
Rated voltage:	**400 V**		

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**5,7 kA**	Ip1ft:	**2,98 kA**
Ikv max downstream:	**5,7 kA**	Ik1ftmin:	**1,6 kA**
Imagmax (maximum magnetic):	**1597 A**	Ik1fnmax:	**2,6 kA**
Ik max:	**5,7 kA**	Ip1fn:	**3,52 kA**
Ip:	**5,09 kA**	Ik1fnmin:	**1,97 kA**
Ik min:	**4,43 kA**	Zk min:	**40,5 mohm**
Ik2ftmax:	**5,12 kA**	Zk max:	**49,5 mohm**
Ip2ft:	**4,8 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**3,78 kA**	Zk2 max:	**0 mohm**
Ik2max:	**4,94 kA**	Zk1ftmin:	**109,7 mohm**
Ip2:	**4,71 kA**	Zk1ftmax:	**137,3 mohm**
Ik2min:	**3,84 kA**	Zk1fnmin:	**88,8 mohm**
Ik1ftmax:	**2,11 kA**	Zk1fnmx:	**111,1 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iSW-NA 80A**		
Protection nominal current.:	**80 A**	Overload current Ins:	**80 A**
Number of poles:	**4**	Breaking capacity BC:	**n.d.**

Identification

Unit ref-mark:	**+QUADRI SECONDARI.QELN-S2-QELN-S2 C-01**
Denomination 1:	QEAE-S2
Denomination 2:	Q.E. Aree Esterne
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**0,8 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**0,8 kW**	Input frequency:	**50 Hz**
Reactive power:	**0,387 kVAR**	Transferred upstream power:	**0,889 kVA**
Load rated current Ib:	**2,81 A**	Total power:	**22,2 kVA**
Power factor:	**0,9**	Available power:	**21,3 kVA**
Rated voltage:	**400 V**		

Cables

Formation:	**5G6**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Coat on horizontal or vertical punched dridges (or not)		
Cable designation	FTG18OM16 0,6/1 kV B2ca-s1a,d1,a1		
Insulating (line+neutral+PE):	**EPR**	K^2S^2 phase conductor:	**$7,362*10^5 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$7,362*10^5 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$7,362*10^5 A^2s$**
Line length:	**15 m**	Partial voltage drop by Ib:	**0,134 %**
Iz withstand current:	**44,3 A**	Total voltage drop by Ib:	**0,608 %**
Neutral withstand current:	**44,3 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**0,82 (Number of circuits: 3)**	Cable temperature by Ib:	**30,2 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**61,3 °C**
Total derating coefficient:	**0,82**	Ib<=In<=Iz Coordination:	**2,81<=32<=44,3 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**5,7 kA**	Ip1ft:	**2,32 kA**
Ikv max downstream:	**2,64 kA**	Ik1ftmin:	**0,838 kA**
Imagmax (maximum magnetic):	**837,8 A**	Ik1fnmax:	**1,25 kA**
Ik max:	**2,64 kA**	Ip1fn:	**2,73 kA**
Ip:	**4,29 kA**	Ik1fnmin:	**0,931 kA**
Ik min:	**1,98 kA**	Zk min:	**87,4 mohm**
Ik2ftmax:	**2,34 kA**	Zk max:	**110,6 mohm**
Ip2ft:	**4,02 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**1,72 kA**	Zk2 max:	**0 mohm**
Ik2max:	**2,29 kA**	Zk1ftmin:	**206,2 mohm**
Ip2:	**3,93 kA**	Zk1ftmax:	**261,9 mohm**
Ik2min:	**1,72 kA**	Zk1fnmin:	**185,3 mohm**
Ik1ftmax:	**1,12 kA**	Zk1fnmx:	**235,6 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60N-D - 32A**		
Protection type:	**MT**		
Protection nominal current.:	**32 A**	Neutral thermic trip setting:	**32 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**448 A**
Release curve:	**D**	Breaking capacity BC:	**10 kA**
Thermic trip setting:	**32 A**	BC > Upstream short-circuit I max:	**10 >= 5,7 kA**
Magnetic trip setting:	**448 A**	Standard:	**Icu - EN 60947**
Magnetic rel. < I max. mag:	**448 < 837,8 A**		

Identification

Unit ref-mark:	**+QUADRI SECONDARI.QELN-S2-QELN-S2 C-02**
Denomination 1:	QESS-S2
Denomination 2:	Q.E. Sala Spettatori
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**0,7 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**0,7 kW**	Input frequency:	**50 Hz**
Reactive power:	**0,339 kVAR**	Transferred upstream power:	**0,778 kVA**
Load rated current Ib:	**2,41 A**	Total power:	**22,2 kVA**
Power factor:	**0,9**	Available power:	**21,4 kVA**
Rated voltage:	**400 V**		

Cables

Formation:	**5G6**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Coat on horizontal or vertical punched dridges (or not)		
Cable designation	FTG18OM16 0,6/1 kV B2ca-s1a,d1,a1		
Insulating (line+neutral+PE):	**EPR**	K^2S^2 phase conductor:	**$7,362*10^5 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$7,362*10^5 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$7,362*10^5 A^2s$**
Line length:	**15 m**	Partial voltage drop by Ib:	**0,117 %**
Iz withstand current:	**44,3 A**	Total voltage drop by Ib:	**0,621 %**
Neutral withstand current:	**44,3 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**0,82 (Number of circuits: 3)**	Cable temperature by Ib:	**30,2 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**61,3 °C**
Total derating coefficient:	**0,82**	Ib<=In<=Iz Coordination:	**2,41<=32<=44,3 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**5,7 kA**	Ip1ft:	**2,32 kA**
Ikv max downstream:	**2,64 kA**	Ik1ftmin:	**0,838 kA**
Imagmax (maximum magnetic):	**837,8 A**	Ik1fnmax:	**1,25 kA**
Ik max:	**2,64 kA**	Ip1fn:	**2,73 kA**
Ip:	**4,29 kA**	Ik1fnmin:	**0,931 kA**
Ik min:	**1,98 kA**	Zk min:	**87,4 mohm**
Ik2ftmax:	**2,34 kA**	Zk max:	**110,6 mohm**
Ip2ft:	**4,02 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**1,72 kA**	Zk2 max:	**0 mohm**
Ik2max:	**2,29 kA**	Zk1ftmin:	**206,2 mohm**
Ip2:	**3,93 kA**	Zk1ftmax:	**261,9 mohm**
Ik2min:	**1,72 kA**	Zk1fnmin:	**185,3 mohm**
Ik1ftmax:	**1,12 kA**	Zk1fnmx:	**235,6 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60N-D - 32A**		
Protection type:	**MT**		
Protection nominal current.:	**32 A**	Neutral thermic trip setting:	**32 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**448 A**
Release curve:	**D**	Breaking capacity BC:	**10 kA**
Thermic trip setting:	**32 A**	BC > Upstream short-circuit I max:	**10 >= 5,7 kA**
Magnetic trip setting:	**448 A**	Standard:	**Icu - EN 60947**
Magnetic rel. < I max. mag:	**448 < 837,8 A**		

Identification

Unit ref-mark:	**+QUADRI SECONDARI.QELN-S2-QELN-S2 C-03**
Denomination 1:	QECR-S2
Denomination 2:	Q.E. Control Room
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**2,85 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**2,85 kW**	Input frequency:	**50 Hz**
Reactive power:	**1,38 kVAR**	Transferred upstream power:	**3,17 kVA**
Load rated current Ib:	**13,7 A**	Total power:	**22,2 kVA**
Power factor:	**0,9**	Available power:	**19 kVA**
Rated voltage:	**400 V**		

Cables

Formation:	**5G6**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FTG18OM16 0,6/1 kV B2ca-s1a,d1,a1		
Insulating (line+neutral+PE):	**EPR**	K^2S^2 phase conductor:	**$7,362*10^5 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$7,362*10^5 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$7,362*10^5 A^2s$**
Line length:	**45 m**	Partial voltage drop by Ib:	**2,05 %**
Iz withstand current:	**54 A**	Total voltage drop by Ib:	**2,68 %**
Neutral withstand current:	**54 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**1 (Number of circuits: 1)**	Cable temperature by Ib:	**33,9 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**51,1 °C**
Total derating coefficient:	**1**	Ib<=In<=Iz Coordination:	**13,7<=32<=54 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**5,7 kA**	Ip1ft:	**2,32 kA**
Ikv max downstream:	**1,25 kA**	Ik1ftmin:	**0,427 kA**
Imagmax (maximum magnetic):	**427,2 A**	Ik1fnmax:	**0,605 kA**
Ik max:	**1,25 kA**	Ip1fn:	**2,73 kA**
Ip:	**4,29 kA**	Ik1fnmin:	**0,45 kA**
Ik min:	**0,93 kA**	Zk min:	**185,1 mohm**
Ik2ftmax:	**1,1 kA**	Zk max:	**236 mohm**
Ip2ft:	**4,02 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**0,813 kA**	Zk2 max:	**0 mohm**
Ik2max:	**1,08 kA**	Zk1ftmin:	**402,4 mohm**
Ip2:	**3,93 kA**	Zk1ftmax:	**513,5 mohm**
Ik2min:	**0,805 kA**	Zk1fnmin:	**381,6 mohm**
Ik1ftmax:	**0,574 kA**	Zk1fnmx:	**487,4 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60N-D - 32A**		
Protection type:	**MT**		
Protection nominal current.:	**32 A**	Neutral thermic trip setting:	**32 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**448 A**
Release curve:	**D**	Breaking capacity BC:	**10 kA**
Thermic trip setting:	**32 A**	BC > Upstream short-circuit I max:	**10 >= 5,7 kA**
Magnetic trip setting:	**448 A**	Standard:	**Icu - EN 60947**
Magnetic rel. < I max. mag:	**Indirect contacts prot**		

Identification

Unit ref-mark:	**+QUADRI SECONDARI.QELN-S2-QELN-S2 C-04**
Denomination 1:	QEPTS-S2
Denomination 2:	Q.E. Piano Tecnico Sale
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**0,21 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**0,21 kW**	Input frequency:	**50 Hz**
Reactive power:	**0,102 kVAR**	Transferred upstream power:	**0,233 kVA**
Load rated current Ib:	**0,673 A**	Total power:	**22,2 kVA**
Power factor:	**0,9**	Available power:	**21,9 kVA**
Rated voltage:	**400 V**		

Cables

Formation:	**5G6**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FTG18OM16 0,6/1 kV B2ca-s1a,d1,a1		
Insulating (line+neutral+PE):	**EPR**	K^2S^2 phase conductor:	**$7,362*10^5 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$7,362*10^5 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$7,362*10^5 A^2s$**
Line length:	**100 m**	Partial voltage drop by Ib:	**0,217 %**
Iz withstand current:	**54 A**	Total voltage drop by Ib:	**0,565 %**
Neutral withstand current:	**54 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**1 (Number of circuits: 1)**	Cable temperature by Ib:	**30 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**51,1 °C**
Total derating coefficient:	**1**	Ib<=In<=Iz Coordination:	**0,673<=32<=54 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**5,7 kA**	Ip1ft:	**2,32 kA**
Ikv max downstream:	**0,632 kA**	Ik1ftmin:	**0,225 kA**
Imagmax (maximum magnetic):	**224,7 A**	Ik1fnmax:	**0,311 kA**
Ik max:	**0,632 kA**	Ip1fn:	**2,73 kA**
Ip:	**4,29 kA**	Ik1fnmin:	**0,231 kA**
Ik min:	**0,47 kA**	Zk min:	**365,6 mohm**
Ik2ftmax:	**0,558 kA**	Zk max:	**467,3 mohm**
Ip2ft:	**4,02 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**0,412 kA**	Zk2 max:	**0 mohm**
Ik2max:	**0,547 kA**	Zk1ftmin:	**763,7 mohm**
Ip2:	**3,93 kA**	Zk1ftmax:	**976,2 mohm**
Ik2min:	**0,407 kA**	Zk1fnmin:	**743 mohm**
Ik1ftmax:	**0,302 kA**	Zk1fnmx:	**950,2 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60N-D - 32A**		
Protection type:	**MT**		
Protection nominal current.:	**32 A**	Neutral thermic trip setting:	**32 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**448 A**
Release curve:	**D**	Breaking capacity BC:	**10 kA**
Thermic trip setting:	**32 A**	BC > Upstream short-circuit I max:	**10 >= 5,7 kA**
Magnetic trip setting:	**448 A**	Standard:	**Icu - EN 60947**
Magnetic rel. < I max. mag:	**Indirect contacts prot**		

Identification

Unit ref-mark:	**+QUADRI SECONDARI.QELN-S2-QELN-S2 C-05**
Denomination 1:	QRTN-S2
Denomination 2:	Q.Regia Nord
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**0,45 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**0,45 kW**	Input frequency:	**50 Hz**
Reactive power:	**0,218 kVAR**	Transferred upstream power:	**0,5 kVA**
Load rated current Ib:	**1,44 A**	Total power:	**22,2 kVA**
Power factor:	**0,9**	Available power:	**21,7 kVA**
Rated voltage:	**400 V**		

Cables

Formation:	**5G6**		
Type of lay:	13 - multi-core cables armed or not armed on punched dridges		
Laying formation:	Beam grouped, buried		
Cable designation	FTG18OM16 0,6/1 kV B2ca-s1a,d1,a1		
Insulating (line+neutral+PE):	**EPR**	K^2S^2 phase conductor:	**$7,362*10^5 A^2s$**
Laying table:	**CEI-UNEL 35024/1**	K^2S^2 neutral:	**$7,362*10^5 A^2s$**
Conductor material:	**COPPER**	K^2S^2 PE:	**$7,362*10^5 A^2s$**
Line length:	**15 m**	Partial voltage drop by Ib:	**0,07 %**
Iz withstand current:	**54 A**	Total voltage drop by Ib:	**0,63 %**
Neutral withstand current:	**54 A**	Ambient temperature:	**30 °C**
Proximity coefficient:	**1 (Number of circuits: 1)**	Cable temperature by Ib:	**30 °C**
Temperature coefficient:	**1**	Cable temperature by In:	**51,1 °C**
Total derating coefficient:	**1**	Ib<=In<=Iz Coordination:	**1,44<=32<=54 A**

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**5,7 kA**	Ip1ft:	**2,32 kA**
Ikv max downstream:	**2,64 kA**	Ik1ftmin:	**0,838 kA**
Imagmax (maximum magnetic):	**837,8 A**	Ik1fnmax:	**1,25 kA**
Ik max:	**2,64 kA**	Ip1fn:	**2,73 kA**
Ip:	**4,29 kA**	Ik1fnmin:	**0,931 kA**
Ik min:	**1,98 kA**	Zk min:	**87,4 mohm**
Ik2ftmax:	**2,34 kA**	Zk max:	**110,6 mohm**
Ip2ft:	**4,02 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**1,72 kA**	Zk2 max:	**0 mohm**
Ik2max:	**2,29 kA**	Zk1ftmin:	**206,2 mohm**
Ip2:	**3,93 kA**	Zk1ftmax:	**261,9 mohm**
Ik2min:	**1,72 kA**	Zk1fnmin:	**185,3 mohm**
Ik1ftmax:	**1,12 kA**	Zk1fnmx:	**235,6 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60N-D - 32A**		
Protection type:	**MT**		
Protection nominal current.:	**32 A**	Neutral thermic trip setting:	**32 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**448 A**
Release curve:	**D**	Breaking capacity BC:	**10 kA**
Thermic trip setting:	**32 A**	BC > Upstream short-circuit I max:	**10 >= 5,7 kA**
Magnetic trip setting:	**448 A**	Standard:	**Icu - EN 60947**
Magnetic rel. < I max. mag:	**448 < 837,8 A**		

Identification

Unit ref-mark:	**+QUADRI SECONDARI.QELN-S2-QELN-S2 C-06**
Denomination 1:	Riserva
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**0 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**0 kW**	Input frequency:	**50 Hz**
Reactive power:	**0 kVAR**	Transferred upstream power:	**0 kVA**
Load rated current Ib:	**0 A**	Total power:	**22,2 kVA**
Power factor:	**0,9**	Available power:	**22,2 kVA**
Rated voltage:	**400 V**		

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**5,7 kA**	Ip1ft:	**2,32 kA**
Ikv max downstream:	**5,7 kA**	Ik1ftmin:	**1,6 kA**
Imagmax (maximum magnetic):	**1597 A**	Ik1fnmax:	**2,6 kA**
Ik max:	**5,7 kA**	Ip1fn:	**2,73 kA**
Ip:	**4,29 kA**	Ik1fnmin:	**1,97 kA**
Ik min:	**4,43 kA**	Zk min:	**40,5 mohm**
Ik2ftmax:	**5,12 kA**	Zk max:	**49,5 mohm**
Ip2ft:	**4,02 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**3,78 kA**	Zk2 max:	**0 mohm**
Ik2max:	**4,94 kA**	Zk1ftmin:	**109,7 mohm**
Ip2:	**3,93 kA**	Zk1ftmax:	**137,3 mohm**
Ik2min:	**3,84 kA**	Zk1fnmin:	**88,8 mohm**
Ik1ftmax:	**2,11 kA**	Zk1fnmx:	**111,1 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60N-C - 32A + Vigi iC60 A 0,03 A**		
Protection type:	**MT+D**		
Protection nominal current.:	**32 A**	Neutral thermic trip setting:	**32 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**320 A**
Release curve:	**C**	Residual trip setting:	**0,03 A**
Operational class:	**A**	Breaking capacity BC:	**10 kA**
Thermic trip setting:	**32 A**	BC > Upstream short-circuit I max:	**10 >= 5,7 kA**
Magnetic trip setting:	**320 A**	Standard:	**Icu - EN 60947**
Magnetic rel. < I max. mag:	**320 < 1597 A**		

Identification

Unit ref-mark:	**+QUADRI SECONDARI.QELN-S2-QELN-S2 C-07**
Denomination 1:	Riserva
Denomination 2:	
Additional Information/Notes 1:	
Additional Information/Notes 2:	

Unit

Unit typology:	**Generic distribution**		
Rated power:	**0 kW**	Distribution system:	**TN-S**
Coefficient:	**1**	Phases link:	**3P+N**
Power dimensioning:	**0 kW**	Input frequency:	**50 Hz**
Reactive power:	**0 kVAR**	Transferred upstream power:	**0 kVA**
Load rated current Ib:	**0 A**	Total power:	**22,2 kVA**
Power factor:	**0,9**	Available power:	**22,2 kVA**
Rated voltage:	**400 V**		

Short-circuit conditions (UTE C 15-500))

Ikm max upstream:	**5,7 kA**	Ip1ft:	**2,44 kA**
Ikv max downstream:	**5,7 kA**	Ik1ftmin:	**1,6 kA**
Imagmax (maximum magnetic):	**1597 A**	Ik1fnmax:	**2,6 kA**
Ik max:	**5,7 kA**	Ip1fn:	**2,9 kA**
Ip:	**4,21 kA**	Ik1fnmin:	**1,97 kA**
Ik min:	**4,43 kA**	Zk min:	**40,5 mohm**
Ik2ftmax:	**5,12 kA**	Zk max:	**49,5 mohm**
Ip2ft:	**3,94 kA**	Zk2 min:	**0 mohm**
Ik2ftmin:	**3,78 kA**	Zk2 max:	**0 mohm**
Ik2max:	**4,94 kA**	Zk1ftmin:	**109,7 mohm**
Ip2:	**3,86 kA**	Zk1ftmax:	**137,3 mohm**
Ik2min:	**3,84 kA**	Zk1fnmin:	**88,8 mohm**
Ik1ftmax:	**2,11 kA**	Zk1fnmx:	**111,1 mohm**

Protection

Protection manufacturer:	**SCHNEIDER ELECTRIC**		
Protection ref-mark:	**iC60L-C - 32A**		
Protection type:	**MT**		
Protection nominal current.:	**32 A**	Neutral thermic trip setting:	**32 A**
Number of poles:	**4**	Neutral magnetic trip setting:	**320 A**
Release curve:	**C**	Breaking capacity BC:	**20 kA**
Thermic trip setting:	**32 A**	BC > Upstream short-circuit I max:	**20 >= 5,7 kA**
Magnetic trip setting:	**320 A**	Standard:	**Icu - EN 60947**
Magnetic rel. < I max. mag:	**320 < 1597 A**		

Unit	System	Circuit	Pn [kW]	Coef.	Pd [kW]	Cosfi	Ikm max [kA]	Formation	Lc [m]	Vn [V]	VDTot (Ib) [%]	Ib<=In<=Iz
CABINA GEN - BT QGBT-TR1												
QGBT-TR1 C-01	TN-S	3P+N	544,5	0,7	381,1	0,979	48,1		0	400	0,06	569,9<=1600 A (Ib<=In)
QGBT-TR1 C-03	TN-S	3P+N	6,71	1	6,71	0,894	48,1	5G16	17	400	0,198	11,9<=63<=70 A
QGBT-TR1 C-00	TN-S	3P+N	2,05	1	2,05	0,894	48,2	5G25	40	400	0,122	3,79<=63<=88,9 A
QGBT-TR1 C-02	TN-S	3P+N	0	1	0	0	48,2	3x(2x150)+1x150+1G150	20	400	-0,022	216,5<=400<=742,4 A
QGBT-TR1 C-04	TN-S	3P+N	53,3	1	53,3	0,9	48,2	4x(1x70)+1G50	100	400	1,39	86,2<=160<=195,3 A
QGBT-TR1 C-05	TN-S	3P+N	40,3	1	40,3	0,9	48,2	4x(1x70)+1G50	90	400	1,07	68,6<=160<=195,3 A
QGBT-TR1 C-06	TN-S	3P+N	18,8	1	18,8	0,899	48,2	5G25	90	400	1,33	32,1<=63<=88,9 A
QGBT-TR1 C-07	TN-S	3P+N	8,61	1	8,61	0,898	48,2	5G25	125	400	1,85	22,4<=40<=88,9 A
QGBT-TR1 C-08	TN-S	3P+N	0	1	0	0,9	48,2		0	400	0,06	0<=63 A (Ib<=In)
QGBT-TR1 C-09	TN-S	3P+N	11,8	1	11,8	0,899	48,2	3x(2x120)+1x120+1G120	25	400	0,126	27,5<=400<=520 A
QGBT-TR1 C-10	TN-S	3P+N	40	1	40	0,9	48,2	5G25	50	400	1,34	64,2<=80<=88,9 A
QGBT-TR1 C-11	TN-S	3P+N	110	1	110	0,9	48,2	4x(1x120)+1G70	50	400	0,915	176,4<=250<=280 A
QGBT-TR1 C-12	TN-S	3P+N	110	1	110	0,9	48,2	4x(1x185)+1G95	95	400	1,23	176,4<=250<=373,1 A
QGBT-TR1 C-13	TN-S	3P+N	130	1	130	0,9	48,2	4x(1x185)+1G95	70	400	1,08	208,5<=250<=373,1 A
QGBT-TR1 C-14	TN-S	3P+N	15	1	15	0,9	48,2	3x(1x50)+1x25+1G25	70	400	0,408	24,1<=100<=151,2 A
QGBT-TR1 C-15	TN-S	3P+N	130,9	1	130,9	0,9	48,2	3x(1x185)+1x95+1G95	70	400	0	209,9<=250<=373,1 A
QGBT-TR1 C-16	TN-S	3P+N	0	1	0	0,9	48,2		0	400	0,06	0<=400 A (Ib<=In)
QGBT-TR1 C-17	TN-S	3P+N	0	1	0	0,9	48,2		0	400	0,06	0<=250 A (Ib<=In)
QGBT-TR1 C-18	TN-S	3P+N	0	1	0	0,9	48,2		0	400	0,06	0<=160 A (Ib<=In)
QGBT-TR1 C-19	TN-S	3P+N	0	1	0	0,9	48,7		0	400	0,06	0<=63 A (Ib<=In)
CABINA GEN - BT QGBT-TR2												
QGBT-TR2 C-01	TN-S	3P+N	241,3	0,7	168,9	0,991	46,1		0	400	0,018	246,3<=3285 A (Ib<=In)
QGBT-TR2 C-00	TN-S	3P+N	0	1	0	0,9	46,1	5G25	40	400	0,018	0<=63<=88,9 A
QGBT-TR2 C-16	TN-S	3P+N	0	1	0	0,9	46,1		0	400	0,018	0<=400 A (Ib<=In)
QGBT-TR2 C-17	TN-S	3P+N	0	1	0	0,9	46,1		0	400	0,018	0<=400 A (Ib<=In)

Unit	System	Circuit	Pn [kW]	Coef.	Pd [kW]	Cosfi	Ikm max [kA]	Formation	Lc [m]	Vn [V]	VDTot (Ib) [%]	Ib<=In<=Iz
QGBT-TR2 C-02	TN-S	3P+N	1,41	1	1,41	0,886	46,1	5G6	45	400	0,673	4,81<=32<=37,8 A
QGBT-TR2 C-03	TN-S	3P+N	1,46	1	1,46	0,887	46,1	5G6	35	400	0,526	4,81<=32<=37,8 A
QGBT-TR2 C-04	TN-S	3P+N	1,46	1	1,46	0,887	46,1	5G6	60	400	0,889	4,81<=32<=37,8 A
QGBT-TR2 C-05	TN-S	3P+N	9,66	1	9,66	0,898	46,1	5G16	60	400	0,604	15,6<=32<=70 A
QGBT-TR2 C-06	TN-S	3P+N	4,9	1	4,9	0,897	46,1	5G10	75	400	0,604	7,91<=32<=52,5 A
QGBT-TR2 C-07	TN-S	3P+N	3,61	1	3,61	0,895	46,1	5G10	95	400	0,632	6,09<=32<=52,5 A
QGBT-TR2 C-08	TN-S	3P+N	58,1	1	58,1	0,898	46,1	4x(1x120)+1G70	100	400	0,927	93,7<=160<=280 A
QGBT-TR2 C-09	TN-S	3P+N	7,21	1	7,21	0,897	46,1	5G6	35	400	1,12	14,4<=32<=37,8 A
QGBT-TR2 C-10	TN-S	3P+N	1,65	1	1,65	0,888	46,1	5G6	35	400	0,476	4,81<=32<=37,8 A
QGBT-TR2 C-11	TN-S	3P+N	53	1	53	0,9	46,1	4x(1x70)+1G35	30	400	0,406	85<=90<=195,3 A
QGBT-TR2 C-12	TN-S	3P+N	5,21	1	5,21	0,896	46,1	3x(1x35)+1x16+1G16	30	400	0,133	9,62<=40<=123,2 A
QGBT-TR2 C-13	TN-S	3P+N	39,6	1	39,6	0,899	46,1	3x(1x150)+1x95+1G95	80	400	0,434	63,7<=175<=324,8 A
QGBT-TR2 C-14	TN-S	3P+N	53	1	53	0,9	46,1	3x(1x240)+1x120+1G120	50	400	0,25	85,5<=90<=607 A
QGBT-TR2 C-15	TN-S	3P+N	1,1	1	1,1	0,902	46,1	3x(1x240)+1x120+1G120	20	400	0,021	1,95<=63<=507 A
QGBT-TR2 C-18	TN-S	3P+N	0	1	0	0,9	46,1		0	400	0,018	0<=250 A (Ib<=In)
QGBT-TR2 C-19	TN-S	3P+N	0	1	0	0,9	46,1		0	400	0,018	0<=250 A (Ib<=In)
QGBT-TR2 C-20	TN-S	3P+N	0	1	0	0	46,1	3x(2x150)+1x150+1G150	20	400	-0,057	216,5<=400<=742,4 A
CABINA GEN - BT QSCAB-N												
QSCAB-N C-00	TN-S	3P+N	6,71	1	6,71	0,894	10,3		0	400	0,198	11,9<=63 A (Ib<=In)
QSCAB-N C-01	TN-S	L3-N	0,6	1	0,6	0,9	5,41	3G4	10	231	0,366	2,89<=25<=49 A
QSCAB-N C-02	TN-S	3P+N	2,46	1	2,46	0,892	10,3	5G2.5	10	400	0,459	4,81<=16<=22 A
QSCAB-N C-03	TN-S	L2-N	0,3	1	0,3	0,9	5,41	3G2.5	10	231	0,293	1,44<=16<=25 A
QSCAB-N C-04	TN-S	L1-N	0,3	1	0,3	0,9	5,41	3G2.5	10	231	0,297	1,44<=16<=25 A
QSCAB-N C-05	TN-S	L3-N	0,307	1	0,307	0,834	5,4		0	231	0,223	1,59<=10 A (Ib<=In)
QSCAB-N C-09	TN-S	L1-N	0,3	1	0,3	0,9	5,41	3G2.5	10	231	0,297	1,44<=6<=25 A
QSCAB-N C-10	TN-S	L3-N	0,3	1	0,3	0,9	5,41	3G2.5	10	231	0,338	1,44<=6<=25 A

Unit	System	Circuit	Pn [kW]	Coef.	Pd [kW]	Cosfi	Ikm max [kA]	Formation	Lc [m]	Vn [V]	VDTot (Ib) [%]	Ib<=In<=Iz
QSCAB-N C-11	TN-S	L1-N	0,9	1	0,9	0,9	5,41	3G1.5	10	231	0,757	4,33<=10<=18,5 A
QSCAB-N C-12	TN-S	L2-N	1	1	1	0,9	5,41	3G2.5	10	231	0,562	4,81<=16<=25 A
QSCAB-N C-13	TN-S	L3-N	0,25	1	0,25	0,9	5,41	3G1.5	10	231	0,383	1,2<=10<=18,5 A
QSCAB-N C-14	TN-S	3P+N	0	1	0	0,9	10,3		0	400	0,198	0<=32 A (Ib<=In)
QSCAB-N C-15	TN-S	3P+N	0	1	0	0,9	10,3		0	400	0,198	0<=16 A (Ib<=In)
QSCAB-N C-16	TN-S	L2-N	0	1	0	0,9	5,41		0	231	0,179	0<=32 A (Ib<=In)
QSCAB-N C-17	TN-S	L2-N	0	1	0	0,9	5,41		0	231	0,179	0<=16 A (Ib<=In)
QSCAB-N C-18	TN-S	L2-N	0	1	0	0,9	5,41		0	231	0,179	0<=10 A (Ib<=In)
AUX TR	TN-S	L3-N	0,307	1	0,307	0,834	5,4		0	231	1,05	1,59<=4,99 A (Ib<=In)
QSCAB-N C-06	TN-S	L3-N	0,1	1	0,1	0,9	1,52		0	24	0	4,63<=16 A (Ib<=In)
QSCAB-N C-07	TN-S	L3-N	0,1	1	0,1	0,9	1,52		0	24	0	4,63<=16 A (Ib<=In)
QSCAB-N C-08	TN-S	L3-N	0,1	1	0,1	0,9	1,52		0	24	0	4,63<=16 A (Ib<=In)
CABINA GEN - BT QEUPS-C												
SGA	TN-S	3P+N	1,1	1	1,1	0,902	32,5		0	400	0,021	1,95<=63 A (Ib<=In)
UPS	TN-S	3P+N	1,1	1	1,1	0,902	32,5		0	400	0,021	1,95<=317,5 A (Ib<=In)
-	TN-S	3P+N	1,08	1	1,08	0,9	32,5	3x(1x240)+1x120+1G120	20	400	0,023	1,92<=192<=634 A
IUPSC	TN-S	3P+N	1,35	0,8	1,08	0,9	24,5		0	400	0,023	1,92<=192 A (Ib<=In)
QEUPS-C C-02	TN-S	3P+N	0,15	1	0,15	0,9	24,5	5G6	100	400	0,179	0,481<=32<=37,8 A
QEUPS-C C-01	TN-S	3P+N	1,2	1	1,2	0,9	24,5	5G10	80	400	0,279	2,41<=40<=52,5 A
QEUPS-C C-03	TN-S	3P+N	0	1	0	0,9	24,5		0	400	0,023	0<=40 A (Ib<=In)
QEUPS-C C-04	TN-S	L1-N	0	1	0	0,9	15,3		0	231	0,023	0<=32 A (Ib<=In)
QEUPS-C C-05	TN-S	3P+N	0	1	0	0,9	24,5		0	400	0,023	0<=32 A (Ib<=In)
QEUPS-C C-06	TN-S	3P+N	0	1	0	0,9	24,5		0	400	0,023	0<=16 A (Ib<=In)
CABINA GEN - BT QSIC-E												
QESIC-E C-00	TN-S	3P+N	3,21	0,8	2,57	0,894	4,62		0	400	0,18	4,73<=63 A (Ib<=In)
QESIC-E C-01	TN-S	3P+N	0	1	0	0,9	4,62	4x(1x35)+1G16	90	400	0,18	0<=63<=123,2 A

Unit	System	Circuit	Pn [kW]	Coef.	Pd [kW]	Cosfi	Ikm max [kA]	Formation	Lc [m]	Vn [V]	VDTot (Ib) [%]	Ib<=In<=Iz
QESIC-E C-02	TN-S	3P+N	0	1	0	0,9	4,62	5G16	75	400	0,18	0<=50<=70 A
QESIC-E C-03	TN-S	3P+N	0	1	0	0,9	4,62	5G4	20	400	0,18	0<=16<=29,4 A
QESIC-E C-04	TN-S	3P+N	0	1	0	0,9	4,62	5G6	50	400	0,18	0<=25<=37,8 A
QESIC-E C-05	TN-S	3P+N	3	1	3	0,9	4,62	5G10	100	400	0,645	4,81<=40<=52,5 A
QESIC-E C-06	TN-S	3P+N	0	1	0	0,9	4,62	5G10	100	400	0,18	0<=32<=52,5 A
QESIC-E C-07	TN-S	L2-N	0,207	1	0,207	0,802	2,02		0	231	0,206	1,12<=10 A (Ib<=In)
QESIC-E C-10	TN-S	3P+N	0	1	0	0,9	4,62		0	400	0,18	0<=63 A (Ib<=In)
QESIC-E C-11	TN-S	3P+N	0	1	0	0,9	4,62		0	400	0,18	0<=32 A (Ib<=In)
AUX TR	TN-S	L2-N	0,207	1	0,207	0,802	2,02		0	231	0,759	1,12<=3,32 A (Ib<=In)
QESIC-E C-08	TN-S	L2-N	0,1	1	0,1	0,9	1,47		0	24	0	4,63<=16 A (Ib<=In)
QESIC-E C-09	TN-S	L2-N	0,1	1	0,1	0,9	1,47		0	24	0	4,63<=16 A (Ib<=In)
CABINA GEN - BT QESIC-S1												
QESIC-S1 C-01	TN-S	3P+N	0,175	1	0,175	0,9	14,1	5G6	30	400	0,322	0,505<=32<=37,8 A
QESIC-S1 C-13	TN-S	3P+N	0,4	1	0,4	0,9	14,1	5G16	10	400	0,296	0,962<=32<=70 A
QESIC-S1 C-04	TN-S	3P+N	0,28	1	0,28	0,9	14,1	5G16	30	400	0,319	1,01<=32<=70 A
QESIC-S1 C-05	TN-S	3P+N	0,21	1	0,21	0,9	14,1	5G16	30	400	0,306	0,673<=32<=70 A
QESIC-S1 C-06	TN-S	3P+N	0,65	1	0,65	0,9	14,1	5G16	30	400	0,359	2,08<=32<=70 A
QESIC-S1 C-07	TN-S	3P+N	1,2	1	1,2	0,9	14,1	5G16	30	400	0,443	4,33<=32<=70 A
QESIC-S1 C-08	TN-S	3P+N	0,49	1	0,49	0,9	14,1	5G16	30	400	0,294	1,15<=32<=70 A
QESIC-S1 C-09	TN-S	3P+N	0,15	1	0,15	0,9	14,1	5G16	30	400	0,286	0,401<=32<=70 A
QESIC-S1 C-10	TN-S	3P+N	0,35	1	0,35	0,9	14,1	5G16	30	400	0,329	1,18<=32<=70 A
QESIC-S1 C-11	TN-S	3P+N	0	1	0	0,9	14,1	5G16	30	400	0,287	0<=32<=70 A
QESIC-S1 C-00	TN-S	3P+N	10,2	0,5	5,08	0,898	14,1		0	400	0,287	12,8<=317,5 A (Ib<=In)
QESIC-S1 C-14	TN-S	L1-N	0,107	1	0,107	0,711	5,83		0	231	0,287	0,653<=10 A (Ib<=In)
QESIC-S1 C-12	TN-S	3P+N	2,82	1	2,82	0,9	14,1	5G25	10	400	0,345	8,05<=80<=88,9 A
QESIC-S1 C-16	TN-S	L1-N	0,15	1	0,15	0,9	5,83	3G4	10	231	0,322	0,722<=10<=49 A

Unit	System	Circuit	Pn [kW]	Coef.	Pd [kW]	Cosfi	Ikm max [kA]	Formation	Lc [m]	Vn [V]	VDTot (Ib) [%]	Ib<=In<=Iz
QESIC-S1 C-03	TN-S	3P+N	1,6	1	1,6	0,9	14,1	5G25	10	400	0,299	2,81<=80<=88,9 A
QESIC-S1 C-17	TN-S	L1-N	0,1	1	0,1	0,9	5,83	3G4	10	231	0,311	0,481<=10<=49 A
QESIC-S1 C-18	TN-S	L3-N	1	1	1	0,9	5,83	3G2.5	10	231	0,65	4,81<=16<=36 A
QESIC-S1 C-02	TN-S	3P+N	0,49	1	0,49	0,9	14,1	5G16	30	400	0,337	1,46<=32<=70 A
QESIC-S1 C-19	TN-S	3P+N	0	1	0	0,9	14,1		0	400	0,287	0<=50 A (Ib<=In)
QESIC-S1 C-20	TN-S	3P+N	0	1	0	0,9	14,1		0	400	0,287	0<=50 A (Ib<=In)
QESIC-S1 C-21	TN-S	3P+N	0	1	0	0,9	14,1		0	400	0,287	0<=32 A (Ib<=In)
AUX TR	TN-S	L1-N	0,107	1	0,107	0,711	5,83		0	231	0,563	0,653<=1,66 A (Ib<=In)
QESIC-S1 C-15	TN-S	L1-N	0,1	1	0,1	0,9	1,51		0	24	0	4,63<=16 A (Ib<=In)
CABINA GEN - BT QESIC-S2												
QESIC-S2 C-00	TN-S	3P+N	12,3	0,5	6,17	0,898	13		0	400	0,287	12,8<=317,5 A (Ib<=In)
QESIC-S2 C-01	TN-S	3P+N	0,75	1	0,75	0,9	13	5G10	100	400	0,407	1,36<=32<=61,5 A
QESIC-S2 C-02	TN-S	3P+N	0,665	1	0,665	0,9	13	5G10	105	400	0,734	2,3<=32<=75 A
QESIC-S2 C-03	TN-S	3P+N	0,4	1	0,4	0,9	13	5G10	70	400	0,424	1,12<=32<=75 A
QESIC-S2 C-04	TN-S	3P+N	5,01	1	5,01	0,9	13	4x(1x95)+1G50	105	400	0,627	16,3<=80<=342 A
QESIC-S2 C-05	TN-S	3P+N	0	1	0	0,9	13	5G10	16	400	0,287	0<=32<=75 A
QESIC-S2 C-06	TN-S	3P+N	1,85	1	1,85	0,9	13	5G16	35	400	0,526	5,81<=80<=82 A
QESIC-S2 C-07	TN-S	3P+N	0,21	1	0,21	0,9	13	5G16	85	400	0,32	0,673<=32<=100 A
QESIC-S2 C-08	TN-S	3P+N	2,1	1	2,1	0,9	13	5G10	85	400	0,563	3,37<=32<=75 A
QESIC-S2 C-09	TN-S	L2-N	0,107	1	0,107	0,711	5,28		0	231	0,252	0,653<=10 A (Ib<=In)
QESIC-S2 C-11	TN-S	L2-N	0,15	1	0,15	0,9	5,28	3G2.5	10	231	0,309	0,722<=10<=36 A
QESIC-S2 C-12	TN-S	L2-N	0,1	1	0,1	0,9	5,28	3G2.5	10	231	0,29	0,481<=10<=36 A
QESIC-S2 C-13	TN-S	L1-N	1	1	1	0,9	5,28	3G2.5	10	231	0,67	4,81<=16<=36 A
QESIC-S2 C-14	TN-S	3P+N	0	1	0	0,9	13		0	400	0,287	0<=16 A (Ib<=In)
QESIC-S2 C-15	TN-S	L1-N	0	1	0	0,9	5,28		0	231	0,287	0<=16 A (Ib<=In)
AUX TR	TN-S	L2-N	0,107	1	0,107	0,711	5,28		0	231	0,528	0,653<=1,66 A (Ib<=In)

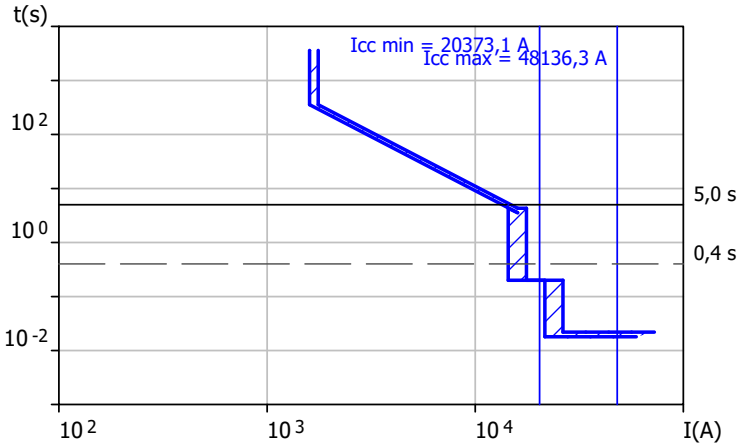
Unit	System	Circuit	Pn [kW]	Coef.	Pd [kW]	Cosfi	Ikm max [kA]	Formation	Lc [m]	Vn [V]	VDTot (Ib) [%]	Ib<=In<=Iz
QESIC-S2 C-10	TN-S	L2-N	0,1	1	0,1	0,9	1,51		0	24	0	4,63<=16 A (Ib<=In)
QUADRI SECONDARI QELS-N												
QELS-N C-00	TN-S	3P+N	79,2	0,5	39,6	0,899	14,1		0	400	0,434	63,7<=175 A (Ib<=In)
QELS-N C-01	TN-S	3P+N	0	1	0	0,9	14,1		0	400	0,434	0<=50 A (Ib<=In)
QELS-N C-02	TN-S	3P+N	21,9	1	21,9	0,899	14,1	4x(1x70)+1G35	40	400	0,655	35,6<=80<=228,8 A
QELS-N C-03	TN-S	3P+N	3,41	1	3,41	0,894	14,1	5G6	15	400	0,574	5,77<=32<=43 A
QELS-N C-04	TN-S	3P+N	2,1	1	2,1	0,894	14,1	5G16	45	400	0,545	3,7<=50<=80 A
QELS-N C-05	TN-S	3P+N	7,61	1	7,61	0,897	14,1	5G16	50	400	0,814	12,6<=50<=80 A
QELS-N C-06	TN-S	3P+N	4,21	1	4,21	0,895	14,1	5G16	90	400	0,85	7,21<=50<=80 A
QELS-N C-07	TN-S	3P+N	0	1	0	0,9	14,1	5G16	15	400	0,434	0<=63<=80 A
QELS-N C-08	TN-S	3P+N	3	1	3	0,9	14,1	5G2.5	70	400	1,7	4,81<=10<=25 A
QELS-N C-09	TN-S	3P+N	3	1	3	0,9	14,1	5G2.5	70	400	1,7	4,81<=10<=25 A
QELS-N C-10	TN-S	3P+N	11	1	11	0,9	14,1	5G4	70	400	3,31	17,6<=25<=34 A
QELS-N C-11	TN-S	3P+N	11	1	11	0,9	14,1	5G4	70	400	3,31	17,6<=25<=34 A
QELS-N C-12	TN-S	3P+N	3	1	3	0,9	14,1	5G10	10	400	0,481	4,81<=16<=75 A
QELS-N C-13	TN-S	3P+N	2,5	1	2,5	0,9	14,1	5G4	30	400	0,732	4,01<=16<=42 A
QELS-N C-14	TN-S	L1-N	0,5	1	0,5	0,9	7,23	3G4	30	231	0,81	2,41<=16<=49 A
QELS-N C-15	TN-S	3P+N	2,5	1	2,5	0,9	14,1	5G4	30	400	0,732	4,01<=16<=42 A
QELS-N C-16	TN-S	L3-N	0,5	1	0,5	0,9	7,23	3G4	30	231	0,816	2,41<=16<=49 A
QELS-N C-17	TN-S	3P+N	3	1	3	0,9	14,1	5G4	30	400	0,792	4,81<=16<=42 A
QELS-N C-18	TN-S	3P+N	0	1	0	0,9	14,1		0	400	0,434	0<=63 A (Ib<=In)
QELS-N C-19	TN-S	3P+N	0	1	0	0,9	14,1		0	400	0,434	0<=63 A (Ib<=In)
QELS-N C-20	TN-S	3P+N	0	1	0	0,9	14,1		0	400	0,434	0<=63 A (Ib<=In)
QELS-N C-21	TN-S	3P+N	0	1	0	0,9	14,1		0	400	0,434	0<=63 A (Ib<=In)
QUADRI SECONDARI QELS-S1												
QELS-S1 C-00	TN-S	3P+N	5,64	0,5	2,82	0,9	9,89		0	400	0,345	8,05<=80 A (Ib<=In)

Unit	System	Circuit	Pn [kW]	Coef.	Pd [kW]	Cosfi	Ikm max [kA]	Formation	Lc [m]	Vn [V]	VDTot (Ib) [%]	Ib<=In<=Iz
QELS-S1 C-01	TN-S	3P+N	0	1	0	0,9	9,89		0	400	0,345	0<=32 A (Ib<=In)
QELS-S1 C-02	TN-S	3P+N	2,3	1	2,3	0,9	9,89	5G10	95	400	1,57	7,05<=50<=61,5 A
QELS-S1 C-03	TN-S	3P+N	0,45	1	0,45	0,9	9,89	5G6	95	400	0,788	1,44<=32<=44,3 A
QELS-S1 C-04	TN-S	3P+N	0,84	1	0,84	0,9	9,89	5G6	85	400	0,564	1,68<=32<=44,3 A
QELS-S1 C-05	TN-S	3P+N	0,85	1	0,85	0,9	9,89	5G10	85	400	0,807	2,89<=50<=61,5 A
QELS-S1 C-06	TN-S	3P+N	1,2	1	1,2	0,9	9,89	5G6	85	400	1,26	3,37<=32<=44,3 A
QELS-S1 C-07	TN-S	3P+N	0	1	0	0,9	9,89		0	400	0,345	0<=32 A (Ib<=In)
QELS-S1 C-08	TN-S	3P+N	0	1	0	0,9	9,89		0	400	0,345	0<=32 A (Ib<=In)
QELS-S1 C-09	TN-S	3P+N	0	1	0	0,9	9,89		0	400	0,345	0<=32 A (Ib<=In)
QUADRI SECONDARI QELS-S2												
QELS-S2 C-00	TN-S	3P+N	3,7	0,5	1,85	0,9	3,99		0	400	0,526	5,81<=80 A (Ib<=In)
QELS-S2 C-01	TN-S	3P+N	0	1	0	0,9	3,99		0	400	0,526	0<=32 A (Ib<=In)
QELS-S2 C-02	TN-S	3P+N	2,85	1	2,85	0,9	3,99	5G10	10	400	0,686	8,74<=50<=61,5 A
QELS-S2 C-03	TN-S	3P+N	0,85	1	0,85	0,9	3,99	5G6	50	400	0,994	2,89<=32<=54 A
QELS-S2 C-04	TN-S	3P+N	0	1	0	0,9	3,99		0	400	0,526	0<=50 A (Ib<=In)
QELS-S2 C-05	TN-S	3P+N	0	1	0	0,9	3,99		0	400	0,526	0<=50 A (Ib<=In)
QELS-S2 C-06	TN-S	3P+N	0	1	0	0,9	3,99		0	400	0,526	0<=16 A (Ib<=In)
QUADRI SECONDARI QELN-N												
QELN-N C-00	TN-S	3P+N	58,1	1	58,1	0,898	10,6		0	400	0,927	93,7<=160 A (Ib<=In)
QELN-N C-01	TN-S	3P+N	4,41	1	4,41	0,896	10,6	5G25	15	400	0,967	7,22<=80<=101 A
QELN-N C-02	TN-S	3P+N	5,51	1	5,51	0,897	10,6	4x(1x70)+1G35	15	400	0,948	8,98<=80<=279 A
QELN-N C-03	TN-S	3P+N	11	1	11	0,898	10,6	5G25	45	400	1,29	19,2<=50<=101 A
QELN-N C-04	TN-S	3P+N	10,5	1	10,5	0,9	10,6	5G16	100	400	2,29	19,2<=32<=80 A
QELN-N C-05	TN-S	3P+N	7,41	1	7,41	0,897	10,6	5G25	95	400	1,42	12,5<=50<=101 A
QELN-N C-06	TN-S	3P+N	6,91	1	6,91	0,897	10,6	5G16	95	400	1,58	11,4<=32<=80 A
QELN-N C-07	TN-S	L1-N	0,17	1	0,17	0,9	6,02	3G2.5	100	231	1,55	0,818<=6<=30 A

Unit	System	Circuit	Pn [kW]	Coef.	Pd [kW]	Cosfi	Ikm max [kA]	Formation	Lc [m]	Vn [V]	VDTot (Ib) [%]	Ib<=In<=Iz
QELN-N C-08	TN-S	L1-N	0,24	1	0,24	0,9	6,02	3G2.5	50	231	1,37	1,15<=10<=30 A
QELN-N C-09	TN-S	3P+N	3	1	3	0,9	10,6	5G2.5	10	400	1,11	4,81<=16<=25 A
QELN-N C-10	TN-S	3P+N	2,5	1	2,5	0,9	10,6	5G4	30	400	1,22	4,01<=16<=42 A
QELN-N C-11	TN-S	L3-N	0,5	1	0,5	0,9	6,02	3G4	30	231	1,31	2,41<=16<=49 A
QELN-N C-12	TN-S	3P+N	2,5	1	2,5	0,9	10,6	5G4	30	400	1,22	4,01<=16<=42 A
QELN-N C-13	TN-S	L2-N	0,5	1	0,5	0,9	6,02	3G4	30	231	1,31	2,41<=16<=49 A
QELN-N C-14	TN-S	3P+N	3	1	3	0,9	10,6	5G4	30	400	1,28	4,81<=16<=42 A
QELN-N C-15	TN-S	3P+N	0	1	0	0,9	10,6		0	400	0,927	0<=32 A (Ib<=In)
QELN-N C-16	TN-S	3P+N	0	1	0	0,9	10,6		0	400	0,927	0<=32 A (Ib<=In)
QELN-N C-17	TN-S	3P+N	0	1	0	0,9	10,6		0	400	0,927	0<=32 A (Ib<=In)
QUADRI SECONDARI QELN-S1												
QELN-S1 C-00	TN-S	3P+N	1,6	1	1,6	0,9	9,89		0	400	0,299	2,81<=80 A (Ib<=In)
QELN-S1 C-01	TN-S	3P+N	0,7	1	0,7	0,9	9,89	5G10	15	400	0,327	1,44<=32<=61,5 A
QELN-S1 C-02	TN-S	3P+N	0,45	1	0,45	0,9	9,89	5G10	15	400	0,31	0,722<=32<=61,5 A
QELN-S1 C-03	TN-S	3P+N	0	1	0	0,9	9,89	5G10	45	400	0,299	0<=32<=61,5 A
QELN-S1 C-04	TN-S	3P+N	0,45	1	0,45	0,9	9,89	5G10	50	400	0,32	0,882<=32<=75 A
QELN-S1 C-05	TN-S	3P+N	0	1	0	0,9	9,89		0	400	0,299	0<=32 A (Ib<=In)
QELN-S1 C-06	TN-S	3P+N	0	1	0	0,9	9,89		0	400	0,299	0<=32 A (Ib<=In)
QUADRI SECONDARI QELN-S2												
QELN-S2 C-00	TN-S	3P+N	5,01	1	5,01	0,9	5,7		0	400	0,627	16,3<=80 A (Ib<=In)
QELN-S2 C-01	TN-S	3P+N	0,8	1	0,8	0,9	5,7	5G6	15	400	0,608	2,81<=32<=44,3 A
QELN-S2 C-02	TN-S	3P+N	0,7	1	0,7	0,9	5,7	5G6	15	400	0,621	2,41<=32<=44,3 A
QELN-S2 C-03	TN-S	3P+N	2,85	1	2,85	0,9	5,7	5G6	45	400	2,68	13,7<=32<=54 A
QELN-S2 C-04	TN-S	3P+N	0,21	1	0,21	0,9	5,7	5G6	100	400	0,565	0,673<=32<=54 A
QELN-S2 C-05	TN-S	3P+N	0,45	1	0,45	0,9	5,7	5G6	15	400	0,63	1,44<=32<=54 A
QELN-S2 C-06	TN-S	3P+N	0	1	0	0,9	5,7		0	400	0,627	0<=32 A (Ib<=In)

Unit	System	Circuit	Pn [kW]	Coef.	Pd [kW]	Cosfi	Ikm max [kA]	Formation	Lc [m]	Vn [V]	VDTot (Ib) [%]	Ib<=In<=Iz
QELN-S2 C-07	TN-S	3P+N	0	1	0	0,9	5,7		0	400	0,627	0<=32 A (Ib<=In)

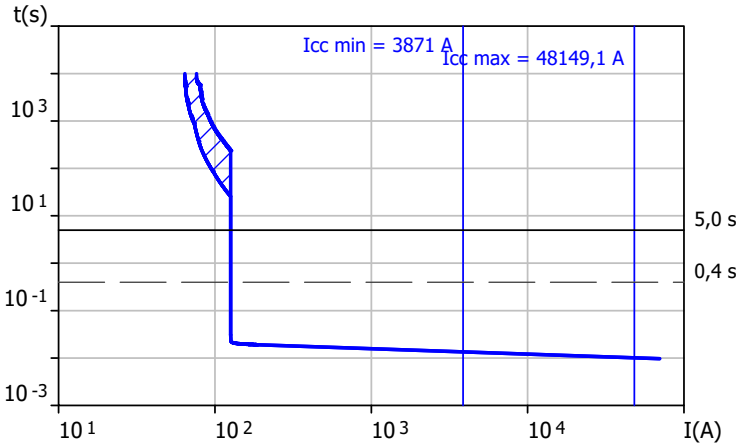
Unit:	**QGBT-TR1 C-01**	
Zone - Panel:	CABINA GEN - BT	QGBT-TR1
Denomination 1:	-	
Denomination 2:	-	
Manufacturer - Mark:	SCHNEIDER ELECTRIC	MTZ1 16 H3
Poles - Rated current IN:	4	1600
Manufacturer - Releaser ref-mark:	SCHNEIDER ELECTRIC	MICROLOGIC 5.0X LSI
Ith [A]:	1600	
Im [A]:	16000	
Ist [A]:	24000	



Currents adjustment		Min	Max
Thermal release [A]:	**1600**	252	6300
CR (Im = x Ir): [I2T = ON]	**10**	1,5	10
IST (Ist = x In):	**15**	2	15
Neutral 1 - Ratio neutral/phase:	**1**		
Neutral 2 - Ratio neutral/phase:	**1**		

Times calibration		Min	Max
LR (tr) [s]:	**12**	0,5	24
CR [s]:	**0,2**	0,02	0,4
IST [s]:	**0,02**		

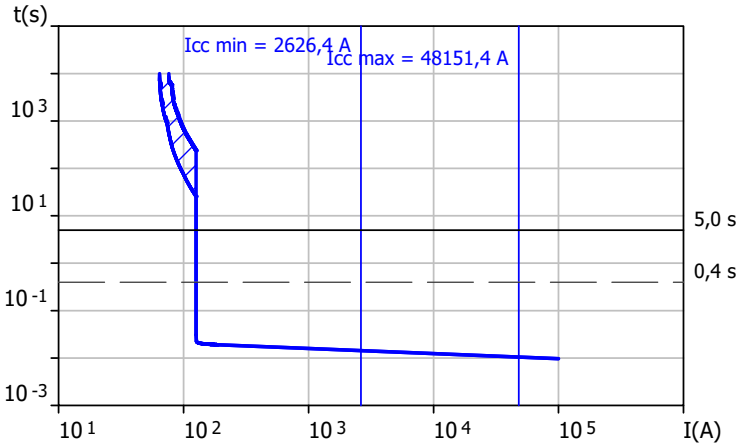
Unit:	**QGBT-TR1 C-03**	
Zone - Panel:	CABINA GEN - BT	QGBT-TR1
Denomination 1:	QSCAB-N	
Denomination 2:	Quadro Servizi di Cabina	
Manufacturer - Mark:	SCHNEIDER ELECTRIC	COMPACT NSX160H
Poles - Rated current IN:	4	160
Manufacturer - Releaser ref-mark:	SCHNEIDER ELECTRIC	TM63G NSX
Ith [A]:	63	
Im [A]:	-	
Ist [A]:	126	



Currents adjustment		Min	Max
Is current [A]:	**63**		
LR (Ir = x Is):	**1**	0,7	1
IST (Ist = x Is):	**2**		
Neutral 1 - Ratio neutral/phase:	**1**		
Neutral 2 - Ratio neutral/phase:	**1**		

Times calibration		Min	Max
IST [s]:	**0,01**		

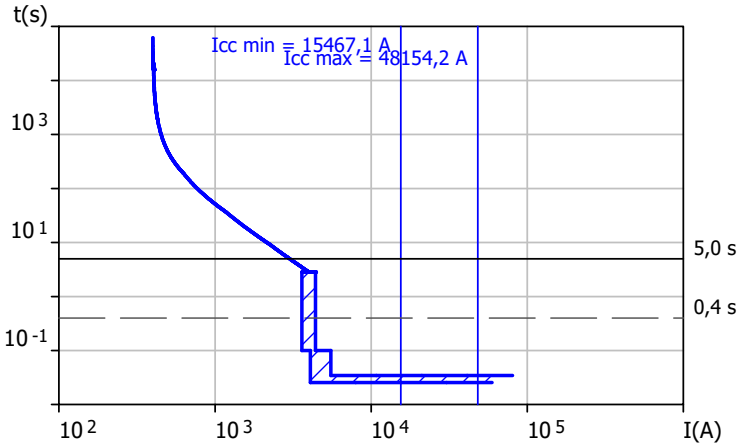
Unit:	**QGBT-TR1 C-00**	
Zone - Panel:	CABINA GEN - BT	QGBT-TR1
Denomination 1:	Luce Scena	
Denomination 2:	Presa Compagnia	
Manufacturer - Mark:	SCHNEIDER ELECTRIC	COMPACT NSX160S
Poles - Rated current IN:	4	160
Manufacturer - Releaser ref-mark:	SCHNEIDER ELECTRIC	TM63G NSX
Ith [A]:	63	
Im [A]:	-	
Ist [A]:	126	



Currents adjustment		Min	Max
Is current [A]:	**63**		
LR (Ir = x Is):	**1**	0,7	1
IST (Ist = x Is):	**2**		
Neutral 1 - Ratio neutral/phase:	**1**		
Neutral 2 - Ratio neutral/phase:	**1**		

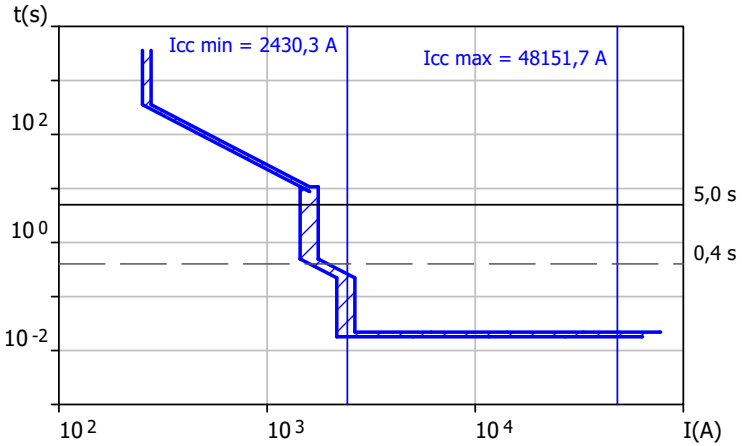
Times calibration		Min	Max
IST [s]:	**0,01**		

Unit:	**QGBT-TR1 C-02**	
Zone - Panel:	CABINA GEN - BT	QGBT-TR1
Denomination 1:	RIF1 Quadro di	
Denomination 2:	Rifasamento Automatico 1	
Manufacturer - Mark:	SCHNEIDER ELECTRIC	COMPACT NSX400H
Poles - Rated current IN:	4	400
Manufacturer - Releaser ref-mark:	SCHNEIDER ELECTRIC	MLOGIC 5.3A NSX (LSI) 400A
Ith [A]:	400	
Im [A]:	4000	
Ist [A]:	4800	



Currents adjustment		Min	Max	**Times calibration**		Min	Max
Is current [A]:	**400**						
Thermal release [A]:	**400**	160	400	LR (tr) [s]:	**8**	0,5	16
LR Regolazione fine:	**400**	1	400				
CR (Im = x Ir): [I2T = ON]	**10**	1,5	10	CR [s]:	**0,1**	0,1	0,4
IST (Ist = x Is):	**12**	1,5	12	IST [s]:	**0,03**		
Neutral 1 - Ratio neutral/phase:	**1**						
Neutral 2 - Ratio neutral/phase:	**1**						

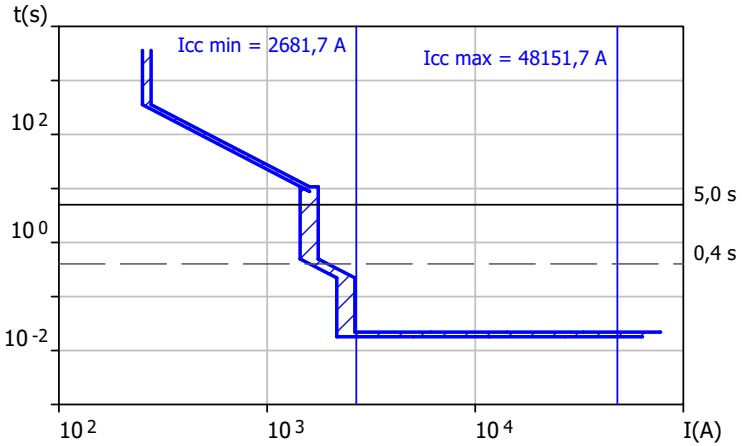
Unit:	**QGBT-TR1 C-04**	
Zone - Panel:	CABINA GEN - BT	QGBT-TR1
Denomination 1:	QECDZ1-N	
Denomination 2:	Q.E. Condizionamento 1	
Manufacturer - Mark:	SCHNEIDER ELECTRIC	COMPACT NSX160H
Poles - Rated current IN:	4	160
Manufacturer - Releaser ref-mark:	SCHNEIDER ELECTRIC	MICROLOGIC 5.0X LSI
Ith [A]:	252	
Im [A]:	1600	
Ist [A]:	2400	



Currents adjustment		Min	Max
Thermal release [A]:	**252**	252	6300
CR (Im = x Ir): [I2T = ON]	**6,3492**	1,5	10
IST (Ist = x In):	**15**	2	15
Neutral 1 - Ratio neutral/phase:	**0,6349**		
Neutral 2 - Ratio neutral/phase:	**1**		

Times calibration		Min	Max
LR (tr) [s]:	**12**	0,5	24
CR [s]:	**0,2**	0,02	0,4
IST [s]:	**0,02**		

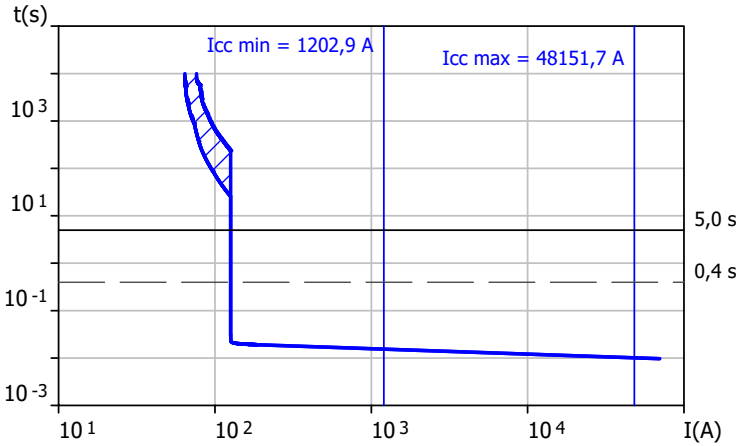
Unit:	**QGBT-TR1 C-05**	
Zone - Panel:	CABINA GEN - BT	QGBT-TR1
Denomination 1:	QECDZ2-N	
Denomination 2:	Q.E. Condizionamento 2	
Manufacturer - Mark:	SCHNEIDER ELECTRIC	COMPACT NSX160H
Poles - Rated current IN:	4	160
Manufacturer - Releaser ref-mark:	SCHNEIDER ELECTRIC	MICROLOGIC 5.0X LSI
Ith [A]:	252	
Im [A]:	1600	
Ist [A]:	2400	



Currents adjustment		Min	Max
Thermal release [A]:	**252**	252	6300
CR (Im = x Ir): [I2T = ON]	**6,3492**	1,5	10
IST (Ist = x In):	**15**	2	15
Neutral 1 - Ratio neutral/phase:	**0,6349**		
Neutral 2 - Ratio neutral/phase:	**1**		

Times calibration		Min	Max
LR (tr) [s]:	**12**	0,5	24
CR [s]:	**0,2**	0,02	0,4
IST [s]:	**0,02**		

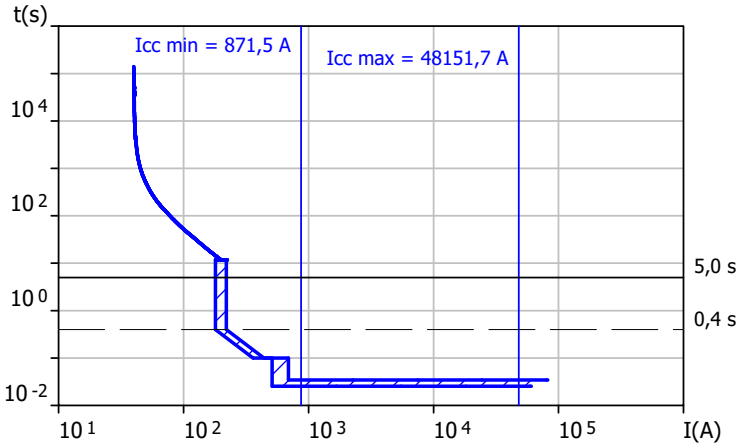
Unit:	**QGBT-TR1 C-06**	
Zone - Panel:	CABINA GEN - BT	QGBT-TR1
Denomination 1:	QECDZ3	
Denomination 2:	Q.E. Unità Trattamento Aria 2	
Manufacturer - Mark:	SCHNEIDER ELECTRIC	COMPACT NSX160H
Poles - Rated current IN:	4	160
Manufacturer - Releaser ref-mark:	SCHNEIDER ELECTRIC	TM63G NSX
Ith [A]:	63	
Im [A]:	-	
Ist [A]:	126	



Currents adjustment		Min	Max
Is current [A]:	**63**		
LR (Ir = x Is):	**1**	0,7	1
IST (Ist = x Is):	**2**		
Neutral 1 - Ratio neutral/phase:	**1**		
Neutral 2 - Ratio neutral/phase:	**1**		

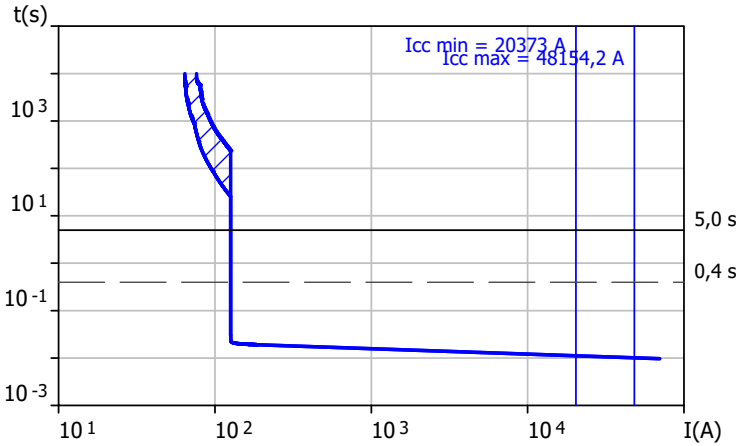
Times calibration		Min	Max
IST [s]:	**0,01**		

Unit:	**QGBT-TR1 C-07**	
Zone - Panel:	CABINA GEN - BT	QGBT-TR1
Denomination 1:	QECDZ4	
Denomination 2:	Q.E. Unità Trattamento Aria 5	
Manufacturer - Mark:	SCHNEIDER ELECTRIC	COMPACT NSX160H
Poles - Rated current IN:	4	160
Manufacturer - Releaser ref-mark:	SCHNEIDER ELECTRIC	MLOGIC 5.2E NSX (LSI) 40A
Ith [A]:	40	
Im [A]:	200	
Ist [A]:	600	



Currents adjustment		Min	Max	**Times calibration**		Min	Max
Is current [A]:	**40**						
Thermal release [A]:	**40**	18	40	LR (tr) [s]:	**8**	0,5	16
LR Regolazione fine:	**40**	1	40				
CR (Im = x Ir): [I2T = ON]	**5**	1,5	10	CR [s]:	**0,1**	0,1	0,4
IST (Ist = x Is):	**15**	1,5	15	IST [s]:	**0,03**		
Neutral 1 - Ratio neutral/phase:	**1**						
Neutral 2 - Ratio neutral/phase:	**1**						

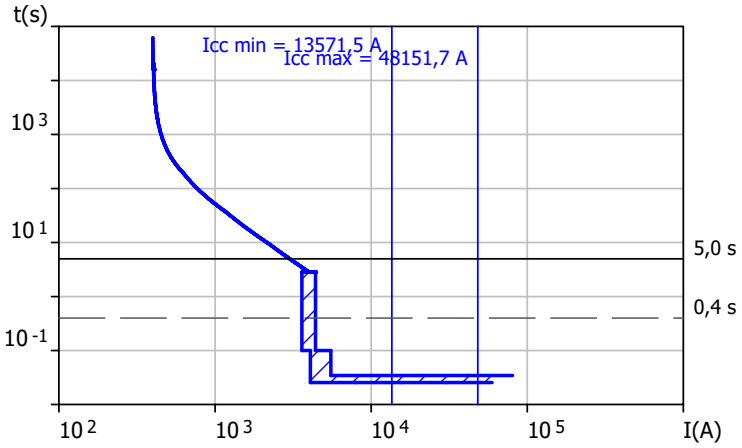
Unit:	**QGBT-TR1 C-08**	
Zone - Panel:	CABINA GEN - BT	QGBT-TR1
Denomination 1:	Riserva	
Denomination 2:	-	
Manufacturer - Mark:	SCHNEIDER ELECTRIC	COMPACT NSX160H
Poles - Rated current IN:	4	160
Manufacturer - Releaser ref-mark:	SCHNEIDER ELECTRIC	TM63G NSX
Ith [A]:	63	
Im [A]:	-	
Ist [A]:	126	



Currents adjustment		Min	Max
Is current [A]:	**63**		
LR (Ir = x Is):	**1**	0,7	1
IST (Ist = x Is):	**2**		
Neutral 1 - Ratio neutral/phase:	**1**		
Neutral 2 - Ratio neutral/phase:	**1**		

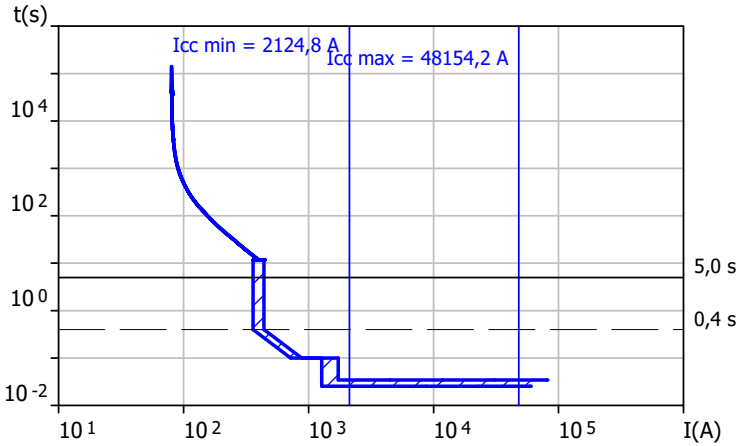
Times calibration		Min	Max
IST [s]:	**0,01**		

Unit:	**QGBT-TR1 C-09**	
Zone - Panel:	CABINA GEN - BT	QGBT-TR1
Denomination 1:	QSRGE-N	
Denomination 2:	Quadro di Scambio Rete-GE	
Manufacturer - Mark:	SCHNEIDER ELECTRIC	COMPACT NSX400H
Poles - Rated current IN:	4	400
Manufacturer - Releaser ref-mark:	SCHNEIDER ELECTRIC	MLOGIC 5.3E NSX (LSI) 400A
Ith [A]:	400	
Im [A]:	4000	
Ist [A]:	4800	



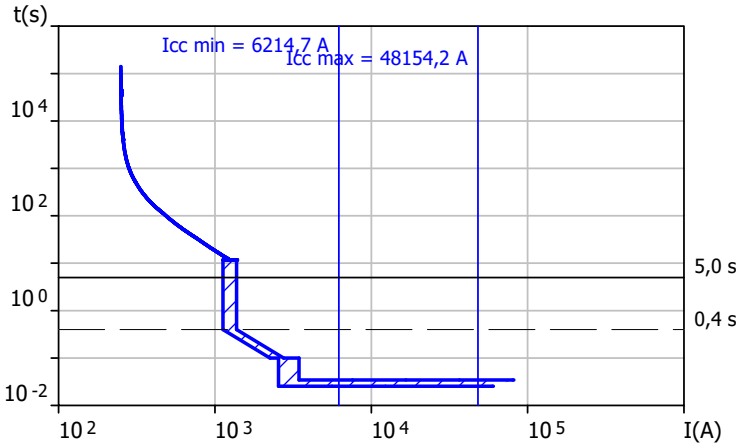
Currents adjustment		Min	Max	**Times calibration**		Min	Max
Is current [A]:	**400**						
Thermal release [A]:	**400**	160	400	LR (tr) [s]:	**8**	0,5	16
LR Regolazione fine:	**400**	1	400				
CR (Im = x Ir): [I2T = ON]	**10**	1,5	10	CR [s]:	**0,1**	0,1	0,4
IST (Ist = x Is):	**12**	1,5	12	IST [s]:	**0,03**		
Neutral 1 - Ratio neutral/phase:	**1**						
Neutral 2 - Ratio neutral/phase:	**1**						

Unit:	**QGBT-TR1 C-10**	
Zone - Panel:	CABINA GEN - BT	QGBT-TR1
Denomination 1:	PDC1	
Denomination 2:	Pompa di Calore 1	
Manufacturer - Mark:	SCHNEIDER ELECTRIC	COMPACT NSX160H
Poles - Rated current IN:	4	160
Manufacturer - Releaser ref-mark:	SCHNEIDER ELECTRIC	MLOGIC 5.2E NSX (LSI) 100A
Ith [A]:	80	
Im [A]:	400	
Ist [A]:	1500	



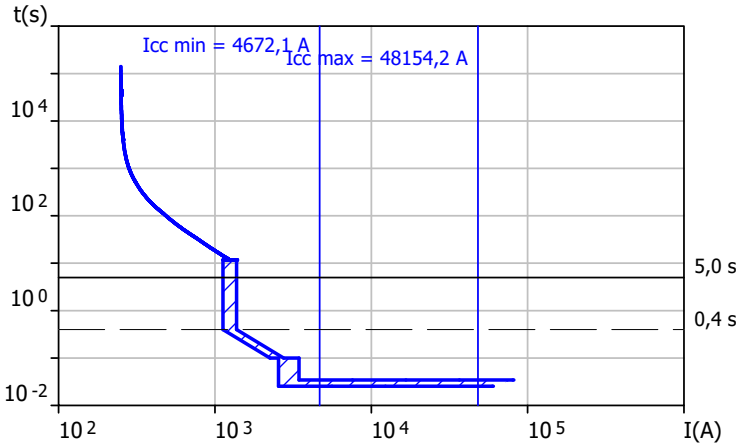
Currents adjustment		Min	Max	**Times calibration**		Min	Max
Is current [A]:	**100**						
Thermal release [A]:	**80**	40	100	LR (tr) [s]:	**8**	0,5	16
LR Regolazione fine:	**80**	1	100				
CR (Im = x Ir): [I2T = ON]	**5**	1,5	10	CR [s]:	**0,1**	0,1	0,4
IST (Ist = x Is):	**15**	1,5	15	IST [s]:	**0,03**		
Neutral 1 - Ratio neutral/phase:	**1**						
Neutral 2 - Ratio neutral/phase:	**1**						

Unit:	**QGBT-TR1 C-11**	
Zone - Panel:	CABINA GEN - BT	QGBT-TR1
Denomination 1:	Luce Scena	
Denomination 2:	Presa Compagnia	
Manufacturer - Mark:	SCHNEIDER ELECTRIC	COMPACT NSX250H
Poles - Rated current IN:	4	250
Manufacturer - Releaser ref-mark:	SCHNEIDER ELECTRIC	MLOGIC 5.2A NSX (LSI) 250A
Ith [A]:	250	
Im [A]:	1250	
Ist [A]:	3000	



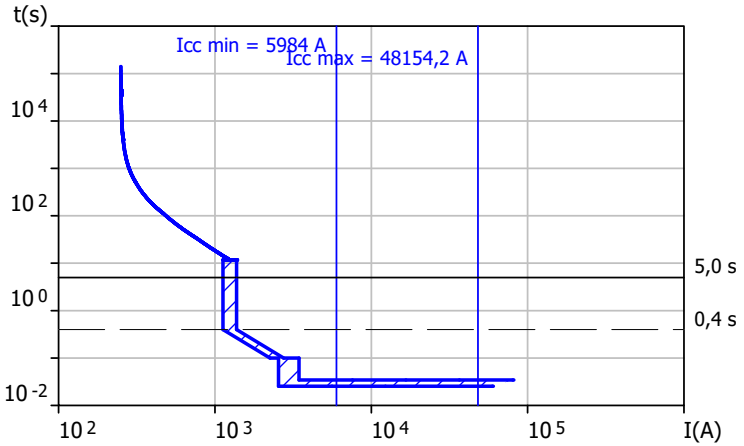
Currents adjustment		Min	Max	**Times calibration**		Min	Max
Is current [A]:	**250**						
Thermal release [A]:	**250**	100	250	LR (tr) [s]:	**8**	0,5	16
LR Regolazione fine:	**250**	1	250				
CR (Im = x Ir): [I2T = ON]	**5**	1,5	10	CR [s]:	**0,1**	0,1	0,4
IST (Ist = x Is):	**12**	1,5	12	IST [s]:	**0,03**		
Neutral 1 - Ratio neutral/phase:	**1**						
Neutral 2 - Ratio neutral/phase:	**1**						

Unit:	**QGBT-TR1 C-12**	
Zone - Panel:	CABINA GEN - BT	QGBT-TR1
Denomination 1:	Macchina Scenica	
Denomination 2:	Alta	
Manufacturer - Mark:	SCHNEIDER ELECTRIC	COMPACT NSX250H
Poles - Rated current IN:	4	250
Manufacturer - Releaser ref-mark:	SCHNEIDER ELECTRIC	MLOGIC 5.2A NSX (LSI) 250A
Ith [A]:	250	
Im [A]:	1250	
Ist [A]:	3000	



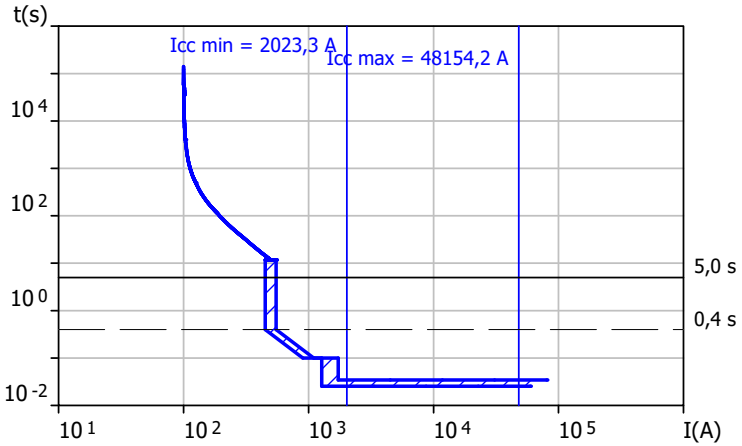
Currents adjustment		Min	Max	**Times calibration**		Min	Max
Is current [A]:	**250**						
Thermal release [A]:	**250**	100	250	LR (tr) [s]:	**8**	0,5	16
LR Regolazione fine:	**250**	1	250				
CR (Im = x Ir): [I2T = ON]	**5**	1,5	10	CR [s]:	**0,1**	0,1	0,4
IST (Ist = x Is):	**12**	1,5	12	IST [s]:	**0,03**		
Neutral 1 - Ratio neutral/phase:	**1**						
Neutral 2 - Ratio neutral/phase:	**1**						

Unit:	**QGBT-TR1 C-13**	
Zone - Panel:	CABINA GEN - BT	QGBT-TR1
Denomination 1:	Luci Scena	
Denomination 2:	Dimmer	
Manufacturer - Mark:	SCHNEIDER ELECTRIC	COMPACT NSX250H
Poles - Rated current IN:	4	250
Manufacturer - Releaser ref-mark:	SCHNEIDER ELECTRIC	MLOGIC 5.2A NSX (LSI) 250A
Ith [A]:	250	
Im [A]:	1250	
Ist [A]:	3000	



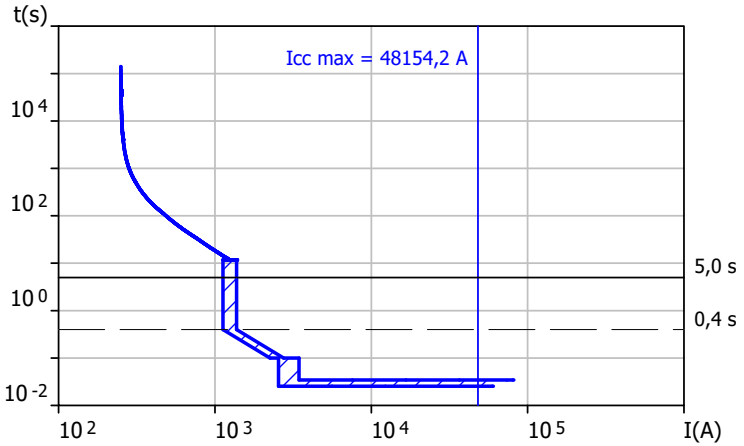
Currents adjustment		Min	Max	**Times calibration**		Min	Max
Is current [A]:	**250**						
Thermal release [A]:	**250**	100	250	LR (tr) [s]:	**8**	0,5	16
LR Regolazione fine:	**250**	1	250				
CR (Im = x Ir): [I2T = ON]	**5**	1,5	10	CR [s]:	**0,1**	0,1	0,4
IST (Ist = x Is):	**12**	1,5	12	IST [s]:	**0,03**		
Neutral 1 - Ratio neutral/phase:	**1**						
Neutral 2 - Ratio neutral/phase:	**1**						

Unit:	**QGBT-TR1 C-14**	
Zone - Panel:	CABINA GEN - BT	QGBT-TR1
Denomination 1:	Macchina Scenica	
Denomination 2:	Bassa	
Manufacturer - Mark:	SCHNEIDER ELECTRIC	COMPACT NSX160H
Poles - Rated current IN:	4	160
Manufacturer - Releaser ref-mark:	SCHNEIDER ELECTRIC	MLOGIC 5.2A NSX (LSI) 100A
Ith [A]:	100	
Im [A]:	500	
Ist [A]:	1500	



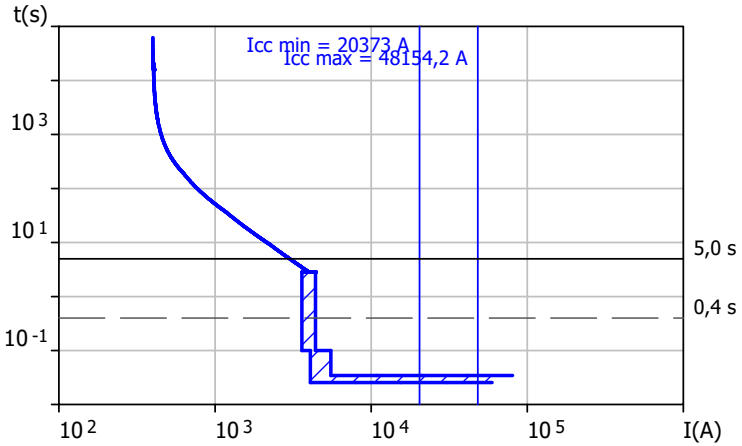
Currents adjustment		Min	Max	**Times calibration**		Min	Max
Is current [A]:	**100**						
Thermal release [A]:	**100**	40	100	LR (tr) [s]:	**8**	0,5	16
LR Regolazione fine:	**100**	1	100				
CR (Im = x Ir): [I2T = ON]	**5**	1,5	10	CR [s]:	**0,1**	0,1	0,4
IST (Ist = x Is):	**15**	1,5	15	IST [s]:	**0,03**		
Neutral 1 - Ratio neutral/phase:	**1**						
Neutral 2 - Ratio neutral/phase:	**1**						

Unit:	**QGBT-TR1 C-15**	
Zone - Panel:	CABINA GEN - BT	QGBT-TR1
Denomination 1:	Fotovoltaico	
Denomination 2:	-	
Manufacturer - Mark:	SCHNEIDER ELECTRIC	COMPACT NSX250H
Poles - Rated current IN:	4	250
Manufacturer - Releaser ref-mark:	SCHNEIDER ELECTRIC	MLOGIC 5.2A NSX (LSI) 250A
Ith [A]:	250	
Im [A]:	1250	
Ist [A]:	3000	



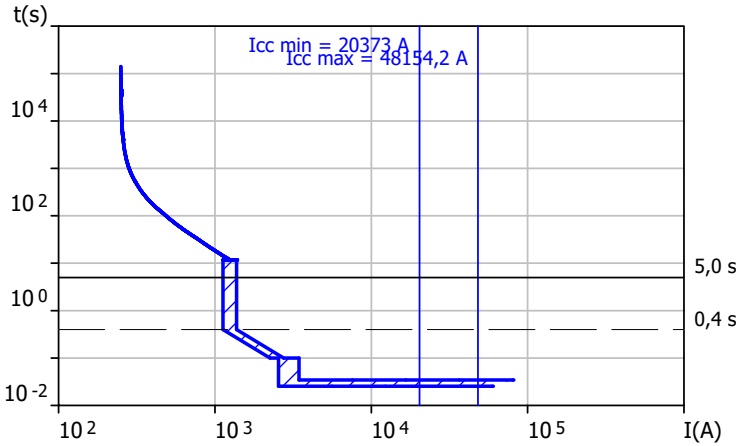
Currents adjustment		Min	Max	**Times calibration**		Min	Max
Is current [A]:	**250**						
Thermal release [A]:	**250**	100	250	LR (tr) [s]:	**8**	0,5	16
LR Regolazione fine:	**250**	1	250				
CR (Im = x Ir): [I2T = ON]	**5**	1,5	10	CR [s]:	**0,1**	0,1	0,4
IST (Ist = x Is):	**12**	1,5	12	IST [s]:	**0,03**		
Neutral 1 - Ratio neutral/phase:	**1**						
Neutral 2 - Ratio neutral/phase:	**1**						

Unit:	**QGBT-TR1 C-16**	
Zone - Panel:	CABINA GEN - BT	QGBT-TR1
Denomination 1:	Riserva	
Denomination 2:	-	
Manufacturer - Mark:	SCHNEIDER ELECTRIC	COMPACT NSX400H
Poles - Rated current IN:	4	400
Manufacturer - Releaser ref-mark:	SCHNEIDER ELECTRIC	MLOGIC 5.3E NSX (LSI) 400A
Ith [A]:	400	
Im [A]:	4000	
Ist [A]:	4800	



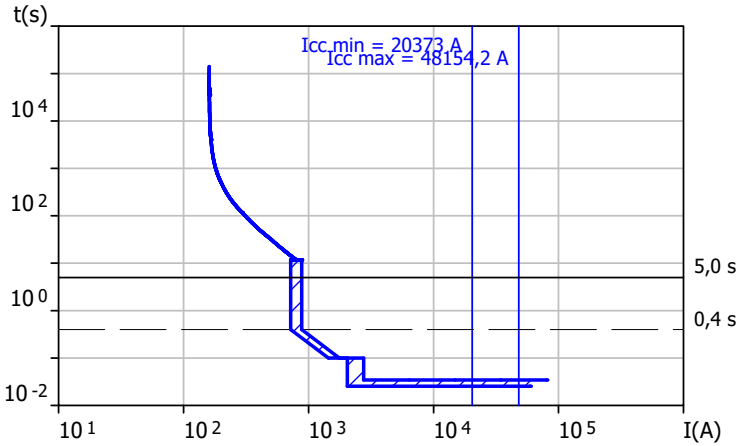
Currents adjustment		Min	Max	**Times calibration**		Min	Max
Is current [A]:	**400**						
Thermal release [A]:	**400**	160	400	LR (tr) [s]:	**8**	0,5	16
LR Regolazione fine:	**400**	1	400				
CR (Im = x Ir): [I2T = ON]	**10**	1,5	10	CR [s]:	**0,1**	0,1	0,4
IST (Ist = x Is):	**12**	1,5	12	IST [s]:	**0,03**		
Neutral 1 - Ratio neutral/phase:	**1**						
Neutral 2 - Ratio neutral/phase:	**1**						

Unit:	**QGBT-TR1 C-17**	
Zone - Panel:	CABINA GEN - BT	QGBT-TR1
Denomination 1:	Riserva	
Denomination 2:	-	
Manufacturer - Mark:	SCHNEIDER ELECTRIC	COMPACT NSX250H
Poles - Rated current IN:	4	250
Manufacturer - Releaser ref-mark:	SCHNEIDER ELECTRIC	MLOGIC 5.2A NSX (LSI) 250A
Ith [A]:	250	
Im [A]:	1250	
Ist [A]:	3000	



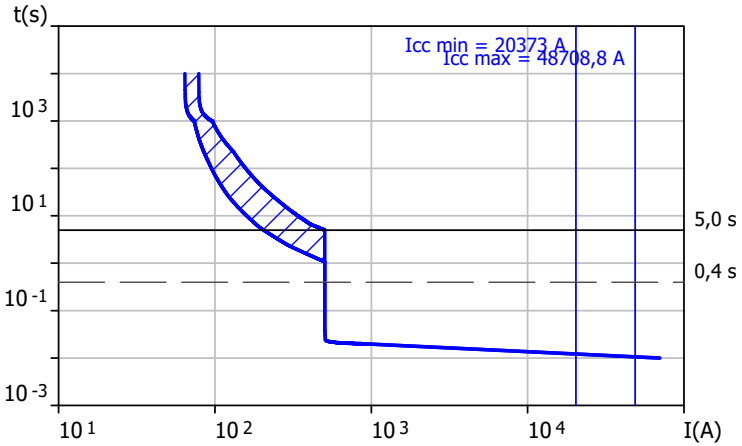
Currents adjustment		Min	Max	**Times calibration**		Min	Max
Is current [A]:	**250**						
Thermal release [A]:	**250**	100	250	LR (tr) [s]:	**8**	0,5	16
LR Regolazione fine:	**250**	1	250				
CR (Im = x Ir): [I2T = ON]	**5**	1,5	10	CR [s]:	**0,1**	0,1	0,4
IST (Ist = x Is):	**12**	1,5	12	IST [s]:	**0,03**		
Neutral 1 - Ratio neutral/phase:	**1**						
Neutral 2 - Ratio neutral/phase:	**1**						

Unit:	**QGBT-TR1 C-18**	
Zone - Panel:	CABINA GEN - BT	QGBT-TR1
Denomination 1:	Riserva	
Denomination 2:	-	
Manufacturer - Mark:	SCHNEIDER ELECTRIC	COMPACT NSX160H
Poles - Rated current IN:	4	160
Manufacturer - Releaser ref-mark:	SCHNEIDER ELECTRIC	MLOGIC 5.2A NSX (LSI) 160A
Ith [A]:	160	
Im [A]:	800	
Ist [A]:	2400	



Currents adjustment		Min	Max	**Times calibration**		Min	Max
Is current [A]:	**160**						
Thermal release [A]:	**160**	63	160	LR (tr) [s]:	**8**	0,5	16
LR Regolazione fine:	**160**	1	160				
CR (Im = x Ir): [I2T = ON]	**5**	1,5	10	CR [s]:	**0,1**	0,1	0,4
IST (Ist = x Is):	**15**	1,5	15	IST [s]:	**0,03**		
Neutral 1 - Ratio neutral/phase:	**1**						
Neutral 2 - Ratio neutral/phase:	**1**						

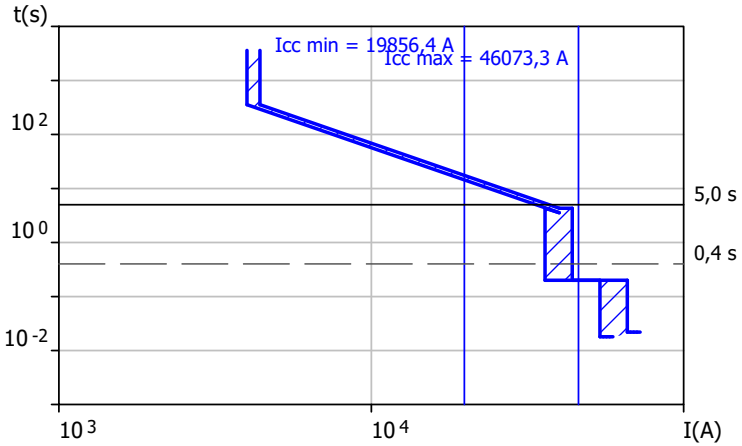
Unit:	**QGBT-TR1 C-19**	
Zone - Panel:	CABINA GEN - BT	QGBT-TR1
Denomination 1:	Riserva	
Denomination 2:	-	
Manufacturer - Mark:	SCHNEIDER ELECTRIC	COMPACT NSX160H
Poles - Rated current IN:	4	160
Manufacturer - Releaser ref-mark:	SCHNEIDER ELECTRIC	TM63D NSX
Ith [A]:	63	
Im [A]:	-	
Ist [A]:	504	



Currents adjustment		Min	Max
Is current [A]:	**63**		
LR (Ir = x Is):	**1**	0,7	1
IST (Ist = x Is):	**8**		
Neutral 1 - Ratio neutral/phase:	**1**		
Neutral 2 - Ratio neutral/phase:	**1**		

Times calibration		Min	Max
IST [s]:	**0,01**		

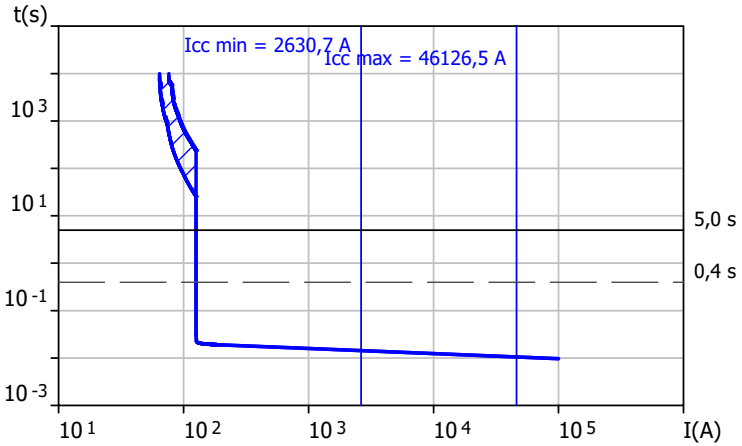
Unit:	**QGBT-TR2 C-01**	
Zone - Panel:	CABINA GEN - BT	QGBT-TR2
Denomination 1:	-	
Denomination 2:	-	
Manufacturer - Mark:	SCHNEIDER ELECTRIC	MTZ2 40 H1 extr
Poles - Rated current IN:	3	4000
Manufacturer - Releaser ref-mark:	SCHNEIDER ELECTRIC	MICROLOGIC 5.0X LSI
Ith [A]:	4000	
Im [A]:	40000	
Ist [A]:	60000	



Currents adjustment		Min	Max
Thermal release [A]:	**4000**	252	6300
CR (Im = x Ir): [I2T = ON]	**10**	1,5	10
IST (Ist = x In):	**15**	2	15

Times calibration		Min	Max
LR (tr) [s]:	**12**	0,5	24
CR [s]:	**0,2**	0,02	0,4
IST [s]:	**0,02**		

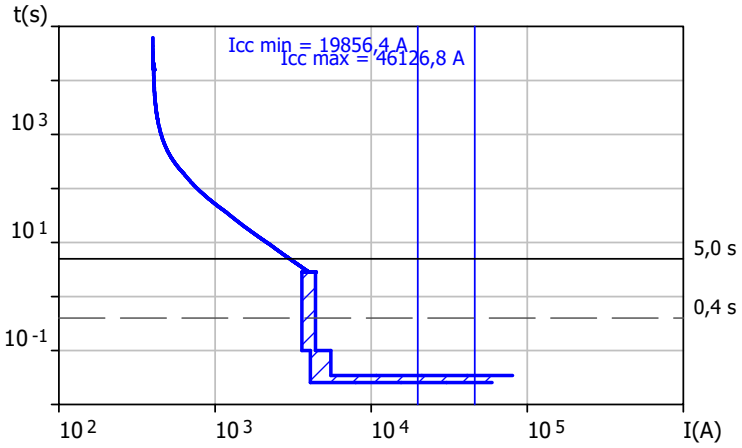
Unit:	**QGBT-TR2 C-00**	
Zone - Panel:	CABINA GEN - BT	QGBT-TR2
Denomination 1:	Luce Scena	
Denomination 2:	Presa Compagnia	
Manufacturer - Mark:	SCHNEIDER ELECTRIC	COMPACT NSX160S
Poles - Rated current IN:	4	160
Manufacturer - Releaser ref-mark:	SCHNEIDER ELECTRIC	TM63G NSX
Ith [A]:	63	
Im [A]:	-	
Ist [A]:	126	



Currents adjustment		Min	Max
Is current [A]:	**63**		
LR (Ir = x Is):	**1**	0,7	1
IST (Ist = x Is):	**2**		
Neutral 1 - Ratio neutral/phase:	**1**		
Neutral 2 - Ratio neutral/phase:	**1**		

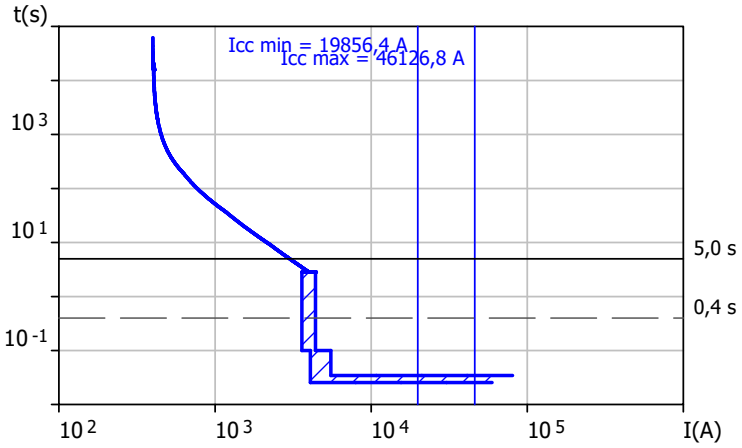
Times calibration		Min	Max
IST [s]:	**0,01**		

Unit:	**QGBT-TR2 C-16**	
Zone - Panel:	CABINA GEN - BT	QGBT-TR2
Denomination 1:	Riserva	
Denomination 2:	-	
Manufacturer - Mark:	SCHNEIDER ELECTRIC	COMPACT NSX400H
Poles - Rated current IN:	4	400
Manufacturer - Releaser ref-mark:	SCHNEIDER ELECTRIC	MLOGIC 5.3E NSX (LSI) 400A
Ith [A]:	400	
Im [A]:	4000	
Ist [A]:	4800	



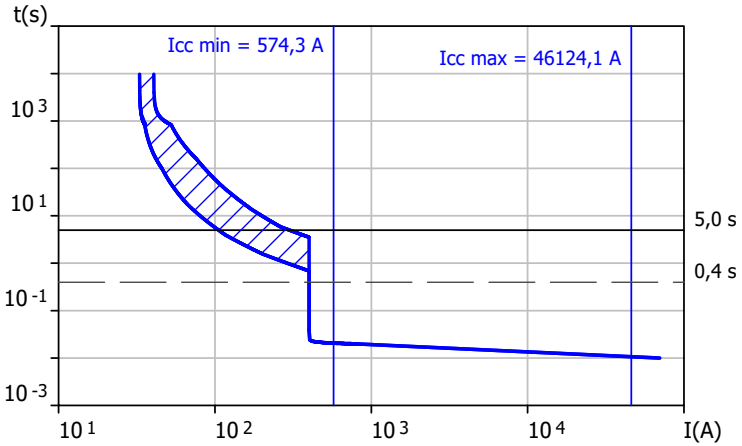
Currents adjustment		Min	Max	**Times calibration**		Min	Max
Is current [A]:	**400**						
Thermal release [A]:	**400**	160	400	LR (tr) [s]:	**8**	0,5	16
LR Regolazione fine:	**400**	1	400				
CR (Im = x Ir): [I2T = ON]	**10**	1,5	10	CR [s]:	**0,1**	0,1	0,4
IST (Ist = x Is):	**12**	1,5	12	IST [s]:	**0,03**		
Neutral 1 - Ratio neutral/phase:	**1**						
Neutral 2 - Ratio neutral/phase:	**1**						

Unit:	**QGBT-TR2 C-17**	
Zone - Panel:	CABINA GEN - BT	QGBT-TR2
Denomination 1:	Riserva	
Denomination 2:	-	
Manufacturer - Mark:	SCHNEIDER ELECTRIC	COMPACT NSX400H
Poles - Rated current IN:	4	400
Manufacturer - Releaser ref-mark:	SCHNEIDER ELECTRIC	MLOGIC 5.3E NSX (LSI) 400A
Ith [A]:	400	
Im [A]:	4000	
Ist [A]:	4800	



Currents adjustment		Min	Max	**Times calibration**		Min	Max
Is current [A]:	**400**						
Thermal release [A]:	**400**	160	400	LR (tr) [s]:	**8**	0,5	16
LR Regolazione fine:	**400**	1	400				
CR (Im = x Ir): [I2T = ON]	**10**	1,5	10	CR [s]:	**0,1**	0,1	0,4
IST (Ist = x Is):	**12**	1,5	12	IST [s]:	**0,03**		
Neutral 1 - Ratio neutral/phase:	**1**						
Neutral 2 - Ratio neutral/phase:	**1**						

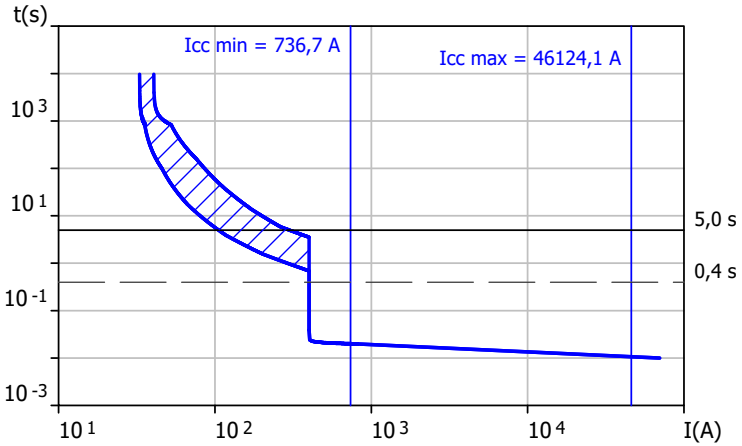
Unit:	**QGBT-TR2 C-02**	
Zone - Panel:	CABINA GEN - BT	QGBT-TR2
Denomination 1:	QESC1-N	
Denomination 2:	Q.E. Scale 1	
Manufacturer - Mark:	SCHNEIDER ELECTRIC	COMPACT NSX160H
Poles - Rated current IN:	4	160
Manufacturer - Releaser ref-mark:	SCHNEIDER ELECTRIC	TM32D NSX
Ith [A]:	32	
Im [A]:	-	
Ist [A]:	400	



Currents adjustment		Min	Max
Is current [A]:	**32**		
LR (Ir = x Is):	**1**	0,7	1
IST (Ist = x Is):	**12,5**		
Neutral 1 - Ratio neutral/phase:	**1**		
Neutral 2 - Ratio neutral/phase:	**1**		

Times calibration		Min	Max
IST [s]:	**0,01**		

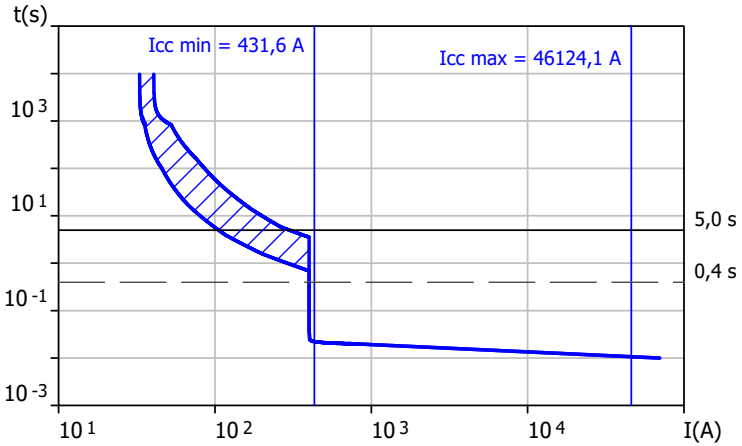
Unit:	**QGBT-TR2 C-03**	
Zone - Panel:	CABINA GEN - BT	QGBT-TR2
Denomination 1:	QESC2-N	
Denomination 2:	Q.E. Scale 2	
Manufacturer - Mark:	SCHNEIDER ELECTRIC	COMPACT NSX160H
Poles - Rated current IN:	4	160
Manufacturer - Releaser ref-mark:	SCHNEIDER ELECTRIC	TM32D NSX
Ith [A]:	32	
Im [A]:	-	
Ist [A]:	400	



Currents adjustment		Min	Max
Is current [A]:	**32**		
LR (Ir = x Is):	**1**	0,7	1
IST (Ist = x Is):	**12,5**		
Neutral 1 - Ratio neutral/phase:	**1**		
Neutral 2 - Ratio neutral/phase:	**1**		

Times calibration		Min	Max
IST [s]:	**0,01**		

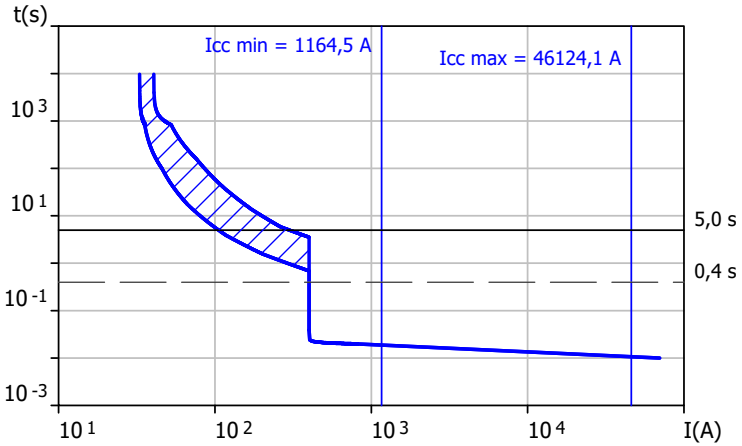
Unit:	**QGBT-TR2 C-04**	
Zone - Panel:	CABINA GEN - BT	QGBT-TR2
Denomination 1:	QESC3-N	
Denomination 2:	Q.E. Scale 3	
Manufacturer - Mark:	SCHNEIDER ELECTRIC	COMPACT NSX160H
Poles - Rated current IN:	4	160
Manufacturer - Releaser ref-mark:	SCHNEIDER ELECTRIC	TM32D NSX
Ith [A]:	32	
Im [A]:	-	
Ist [A]:	400	



Currents adjustment		Min	Max
Is current [A]:	**32**		
LR (Ir = x Is):	**1**	0,7	1
IST (Ist = x Is):	**12,5**		
Neutral 1 - Ratio neutral/phase:	**1**		
Neutral 2 - Ratio neutral/phase:	**1**		

Times calibration		Min	Max
IST [s]:	**0,01**		

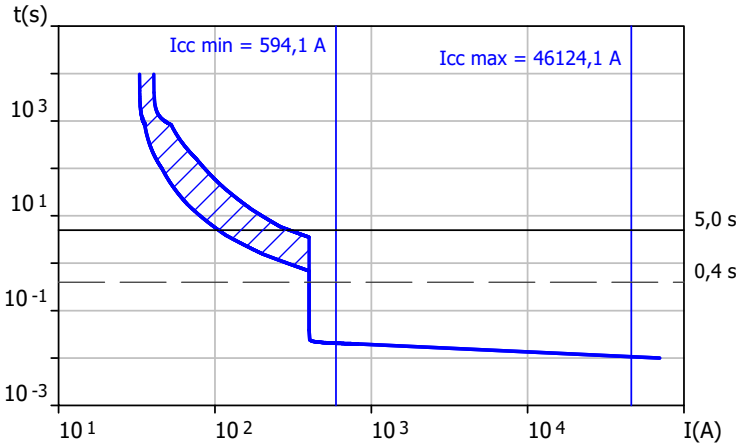
Unit:	**QGBT-TR2 C-05**	
Zone - Panel:	CABINA GEN - BT	QGBT-TR2
Denomination 1:	QECAM1-N	
Denomination 2:	Q.E. Camerini P-2	
Manufacturer - Mark:	SCHNEIDER ELECTRIC	COMPACT NSX160H
Poles - Rated current IN:	4	160
Manufacturer - Releaser ref-mark:	SCHNEIDER ELECTRIC	TM32D NSX
Ith [A]:	32	
Im [A]:	-	
Ist [A]:	400	



Currents adjustment		Min	Max
Is current [A]:	**32**		
LR (Ir = x Is):	**1**	0,7	1
IST (Ist = x Is):	**12,5**		
Neutral 1 - Ratio neutral/phase:	**1**		
Neutral 2 - Ratio neutral/phase:	**1**		

Times calibration		Min	Max
IST [s]:	**0,01**		

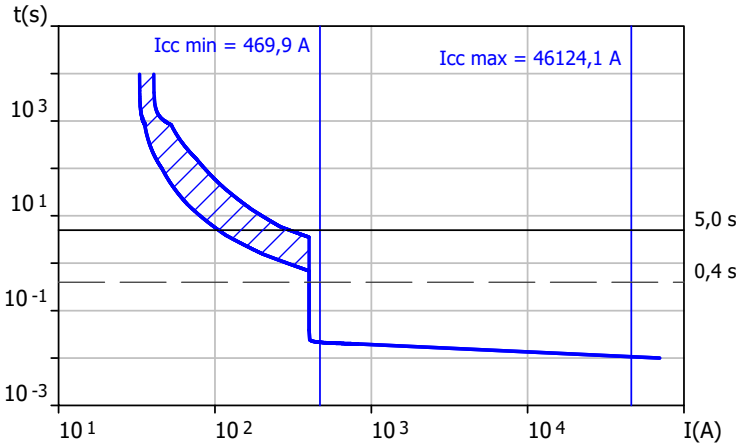
Unit:	**QGBT-TR2 C-06**	
Zone - Panel:	CABINA GEN - BT	QGBT-TR2
Denomination 1:	QECAM2-N	
Denomination 2:	Q.E. Camerini P-1	
Manufacturer - Mark:	SCHNEIDER ELECTRIC	COMPACT NSX160H
Poles - Rated current IN:	4	160
Manufacturer - Releaser ref-mark:	SCHNEIDER ELECTRIC	TM32D NSX
Ith [A]:	32	
Im [A]:	-	
Ist [A]:	400	



Currents adjustment		Min	Max
Is current [A]:	**32**		
LR (Ir = x Is):	**1**	0,7	1
IST (Ist = x Is):	**12,5**		
Neutral 1 - Ratio neutral/phase:	**1**		
Neutral 2 - Ratio neutral/phase:	**1**		

Times calibration		Min	Max
IST [s]:	**0,01**		

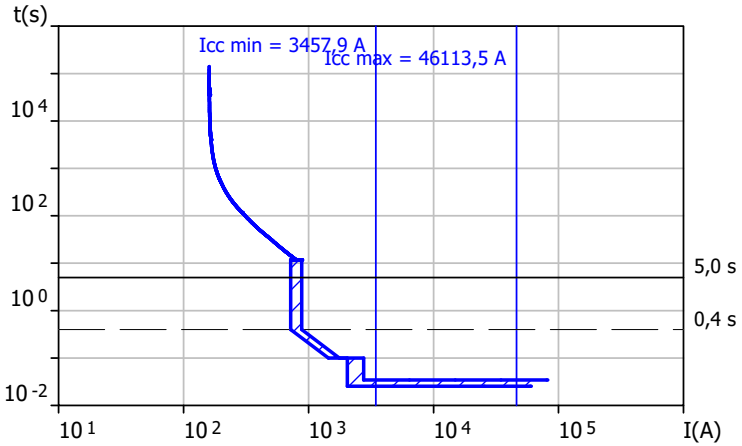
Unit:	**QGBT-TR2 C-07**	
Zone - Panel:	CABINA GEN - BT	QGBT-TR2
Denomination 1:	QESD-N	
Denomination 2:	Q.E. Sala Danza	
Manufacturer - Mark:	SCHNEIDER ELECTRIC	COMPACT NSX160H
Poles - Rated current IN:	4	160
Manufacturer - Releaser ref-mark:	SCHNEIDER ELECTRIC	TM32D NSX
Ith [A]:	32	
Im [A]:	-	
Ist [A]:	400	



Currents adjustment		Min	Max
Is current [A]:	**32**		
LR (Ir = x Is):	**1**	0,7	1
IST (Ist = x Is):	**12,5**		
Neutral 1 - Ratio neutral/phase:	**1**		
Neutral 2 - Ratio neutral/phase:	**1**		

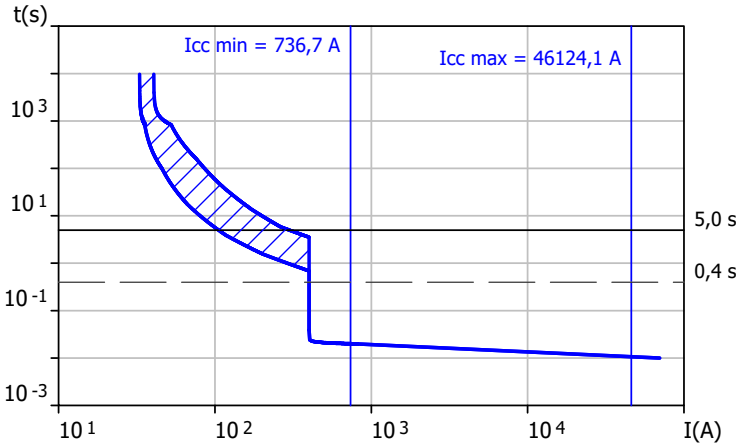
Times calibration		Min	Max
IST [s]:	**0,01**		

Unit:	**QGBT-TR2 C-08**	
Zone - Panel:	CABINA GEN - BT	QGBT-TR2
Denomination 1:	QELN-N	
Denomination 2:	Q.E. Lato Nord	
Manufacturer - Mark:	SCHNEIDER ELECTRIC	COMPACT NSX160H
Poles - Rated current IN:	4	160
Manufacturer - Releaser ref-mark:	SCHNEIDER ELECTRIC	MLOGIC 5.2E NSX (LSI) 160A
Ith [A]:	160	
Im [A]:	800	
Ist [A]:	2400	



Currents adjustment		Min	Max	**Times calibration**		Min	Max
Is current [A]:	**160**						
Thermal release [A]:	**160**	63	160	LR (tr) [s]:	**8**	0,5	16
LR Regolazione fine:	**160**	1	160				
CR (Im = x Ir): [I2T = ON]	**5**	1,5	10	CR [s]:	**0,1**	0,1	0,4
IST (Ist = x Is):	**15**	1,5	15	IST [s]:	**0,03**		
Neutral 1 - Ratio neutral/phase:	**1**						
Neutral 2 - Ratio neutral/phase:	**1**						

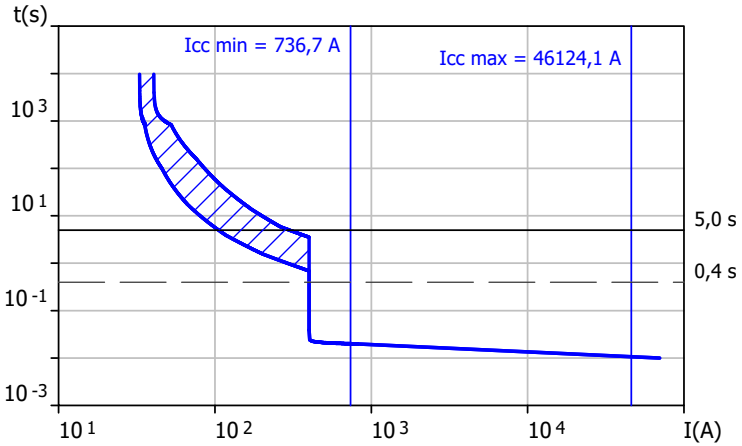
Unit:	**QGBT-TR2 C-09**	
Zone - Panel:	CABINA GEN - BT	QGBT-TR2
Denomination 1:	QECS-N	
Denomination 2:	Q.E. Centro Stella	
Manufacturer - Mark:	SCHNEIDER ELECTRIC	COMPACT NSX160H
Poles - Rated current IN:	4	160
Manufacturer - Releaser ref-mark:	SCHNEIDER ELECTRIC	TM32D NSX
Ith [A]:	32	
Im [A]:	-	
Ist [A]:	400	



Currents adjustment		Min	Max
Is current [A]:	**32**		
LR (Ir = x Is):	**1**	0,7	1
IST (Ist = x Is):	**12,5**		
Neutral 1 - Ratio neutral/phase:	**1**		
Neutral 2 - Ratio neutral/phase:	**1**		

Times calibration		Min	Max
IST [s]:	**0,01**		

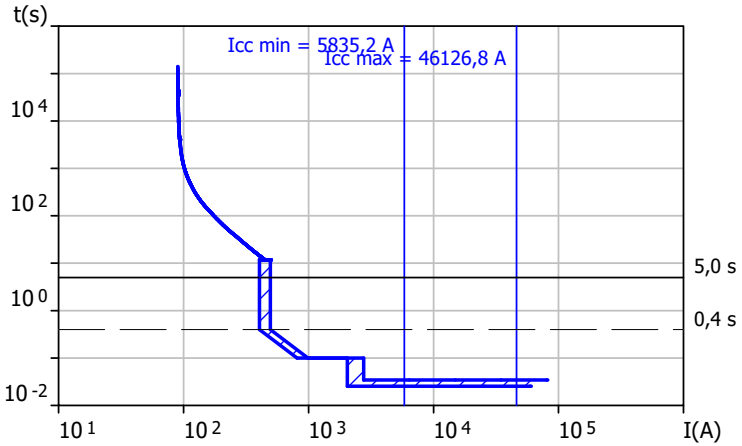
Unit:	**QGBT-TR2 C-10**	
Zone - Panel:	CABINA GEN - BT	QGBT-TR2
Denomination 1:	QEFO-N	
Denomination 2:	Q.E. Fosse Orchestra	
Manufacturer - Mark:	SCHNEIDER ELECTRIC	COMPACT NSX160H
Poles - Rated current IN:	4	160
Manufacturer - Releaser ref-mark:	SCHNEIDER ELECTRIC	TM32D NSX
Ith [A]:	32	
Im [A]:	-	
Ist [A]:	400	



Currents adjustment		Min	Max
Is current [A]:	**32**		
LR (Ir = x Is):	**1**	0,7	1
IST (Ist = x Is):	**12,5**		
Neutral 1 - Ratio neutral/phase:	**1**		
Neutral 2 - Ratio neutral/phase:	**1**		

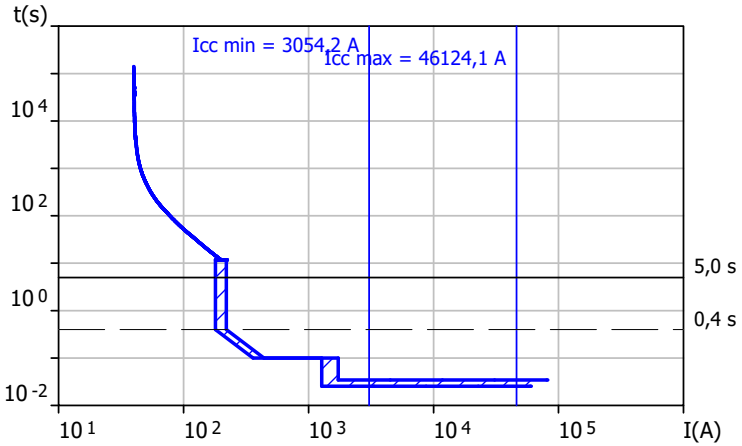
Times calibration		Min	Max
IST [s]:	**0,01**		

Unit:	**QGBT-TR2 C-11**	
Zone - Panel:	CABINA GEN - BT	QGBT-TR2
Denomination 1:	QSCP-N	
Denomination 2:	Q.E. Sottocentrale Pompaggi	
Manufacturer - Mark:	SCHNEIDER ELECTRIC	COMPACT NSX160H
Poles - Rated current IN:	4	160
Manufacturer - Releaser ref-mark:	SCHNEIDER ELECTRIC	MLOGIC 5.2E NSX (LSI) 160A
Ith [A]:	90	
Im [A]:	450	
Ist [A]:	2400	



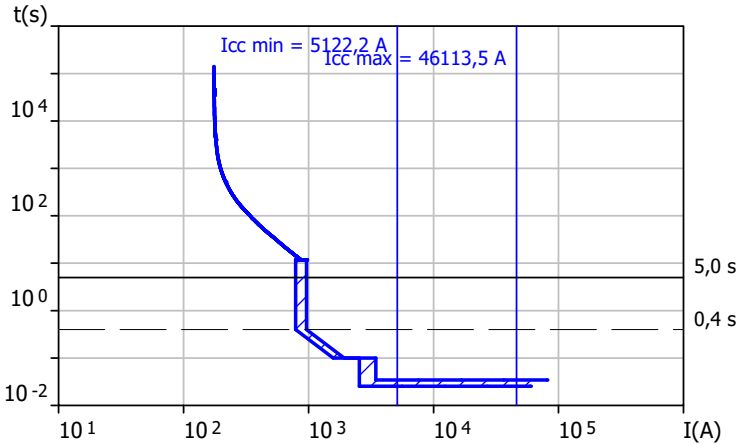
Currents adjustment		Min	Max	**Times calibration**		Min	Max
Is current [A]:	**160**						
Thermal release [A]:	**90**	63	160	LR (tr) [s]:	**8**	0,5	16
LR Regolazione fine:	**90**	1	160				
CR (Im = x Ir): [I2T = ON]	**5**	1,5	10	CR [s]:	**0,1**	0,1	0,4
IST (Ist = x Is):	**15**	1,5	15	IST [s]:	**0,03**		
Neutral 1 - Ratio neutral/phase:	**1**						
Neutral 2 - Ratio neutral/phase:	**1**						

Unit:	**QGBT-TR2 C-12**	
Zone - Panel:	CABINA GEN - BT	QGBT-TR2
Denomination 1:	QEMAG-N	
Denomination 2:	Q.E. Magazzino	
Manufacturer - Mark:	SCHNEIDER ELECTRIC	COMPACT NSX160H
Poles - Rated current IN:	4	160
Manufacturer - Releaser ref-mark:	SCHNEIDER ELECTRIC	MLOGIC 5.2E NSX (LSI) 100A
Ith [A]:	40	
Im [A]:	200	
Ist [A]:	1500	



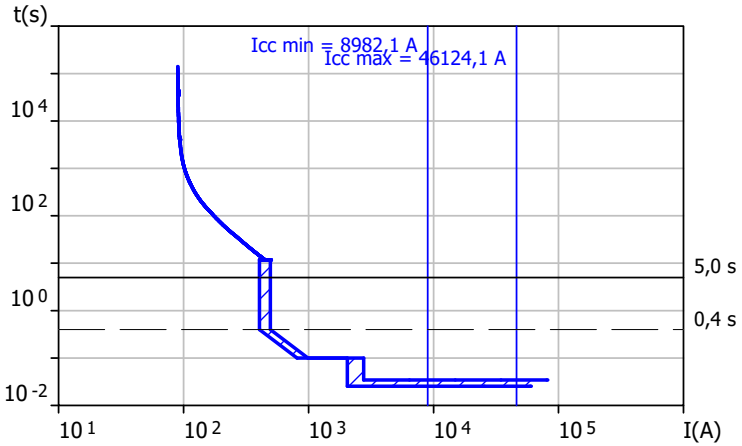
Currents adjustment		Min	Max	**Times calibration**		Min	Max
Is current [A]:	**100**						
Thermal release [A]:	**40**	40	100	LR (tr) [s]:	**8**	0,5	16
LR Regolazione fine:	**40**	1	100				
CR (Im = x Ir): [I2T = ON]	**5**	1,5	10	CR [s]:	**0,1**	0,1	0,4
IST (Ist = x Is):	**15**	1,5	15	IST [s]:	**0,03**		
Neutral 1 - Ratio neutral/phase:	**1**						
Neutral 2 - Ratio neutral/phase:	**1**						

Unit:	**QGBT-TR2 C-13**	
Zone - Panel:	CABINA GEN - BT	QGBT-TR2
Denomination 1:	QELS-N	
Denomination 2:	Q.E. Lato Sud	
Manufacturer - Mark:	SCHNEIDER ELECTRIC	COMPACT NSX250H
Poles - Rated current IN:	4	250
Manufacturer - Releaser ref-mark:	SCHNEIDER ELECTRIC	MLOGIC 5.2E NSX (LSI) 250A
Ith [A]:	175	
Im [A]:	875	
Ist [A]:	3000	



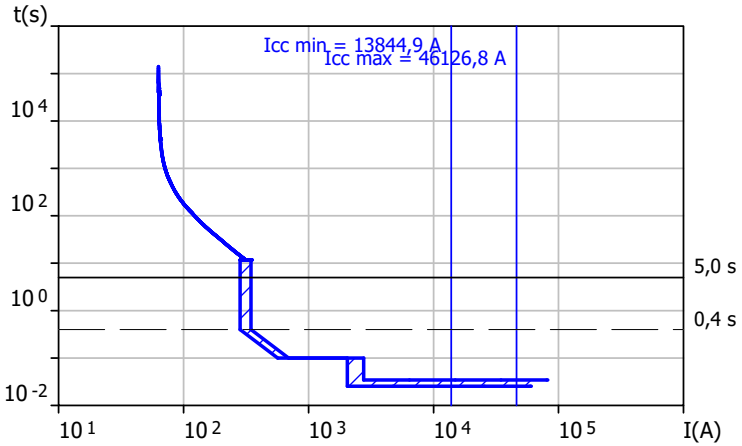
Currents adjustment		Min	Max	**Times calibration**		Min	Max
Is current [A]:	**250**						
Thermal release [A]:	**175**	100	250	LR (tr) [s]:	**8**	0,5	16
LR Regolazione fine:	**175**	1	250				
CR (Im = x Ir): [I2T = ON]	**5**	1,5	10	CR [s]:	**0,1**	0,1	0,4
IST (Ist = x Is):	**12**	1,5	12	IST [s]:	**0,03**		
Neutral 1 - Ratio neutral/phase:	**1**						
Neutral 2 - Ratio neutral/phase:	**1**						

Unit:	**QGBT-TR2 C-14**	
Zone - Panel:	CABINA GEN - BT	QGBT-TR2
Denomination 1:	QPALCO	
Denomination 2:	Q.E. Palco	
Manufacturer - Mark:	SCHNEIDER ELECTRIC	COMPACT NSX160H
Poles - Rated current IN:	4	160
Manufacturer - Releaser ref-mark:	SCHNEIDER ELECTRIC	MLOGIC 5.2E NSX (LSI) 160A
Ith [A]:	90	
Im [A]:	450	
Ist [A]:	2400	



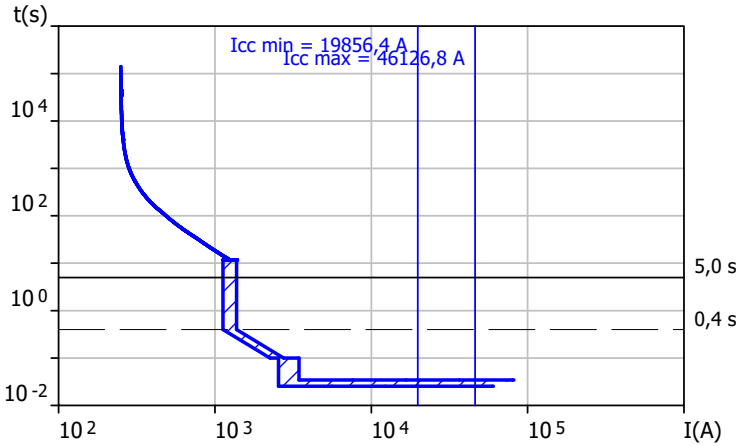
Currents adjustment		Min	Max	**Times calibration**		Min	Max
Is current [A]:	**160**						
Thermal release [A]:	**90**	63	160	LR (tr) [s]:	**8**	0,5	16
LR Regolazione fine:	**90**	1	160				
CR (Im = x Ir): [I2T = ON]	**5**	1,5	10	CR [s]:	**0,1**	0,1	0,4
IST (Ist = x Is):	**15**	1,5	15	IST [s]:	**0,03**		
Neutral 1 - Ratio neutral/phase:	**1**						
Neutral 2 - Ratio neutral/phase:	**1**						

Unit:	**QGBT-TR2 C-15**	
Zone - Panel:	CABINA GEN - BT	QGBT-TR2
Denomination 1:	UPS-C	
Denomination 2:	Continuità	
Manufacturer - Mark:	SCHNEIDER ELECTRIC	COMPACT NSX160H
Poles - Rated current IN:	4	160
Manufacturer - Releaser ref-mark:	SCHNEIDER ELECTRIC	MLOGIC 5.2E NSX (LSI) 160A
Ith [A]:	63	
Im [A]:	315	
Ist [A]:	2400	



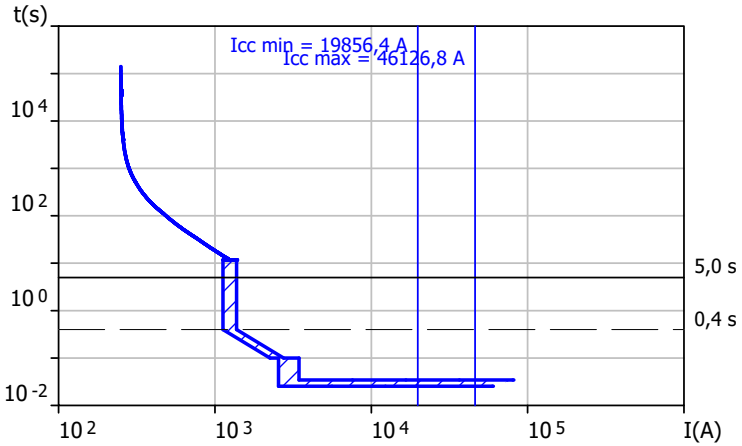
Currents adjustment		Min	Max	**Times calibration**		Min	Max
Is current [A]:	**160**						
Thermal release [A]:	**63**	63	160	LR (tr) [s]:	**8**	0,5	16
LR Regolazione fine:	**63**	1	160				
CR (Im = x Ir): [I2T = ON]	**5**	1,5	10	CR [s]:	**0,1**	0,1	0,4
IST (Ist = x Is):	**15**	1,5	15	IST [s]:	**0,03**		
Neutral 1 - Ratio neutral/phase:	**1**						
Neutral 2 - Ratio neutral/phase:	**1**						

Unit:	**QGBT-TR2 C-18**	
Zone - Panel:	CABINA GEN - BT	QGBT-TR2
Denomination 1:	Riserva	
Denomination 2:	-	
Manufacturer - Mark:	SCHNEIDER ELECTRIC	COMPACT NSX250H
Poles - Rated current IN:	4	250
Manufacturer - Releaser ref-mark:	SCHNEIDER ELECTRIC	MLOGIC 5.2E NSX (LSI) 250A
Ith [A]:	250	
Im [A]:	1250	
Ist [A]:	3000	



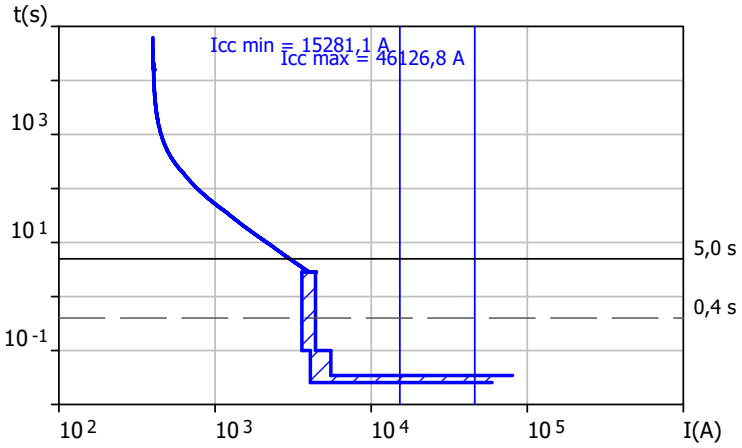
Currents adjustment		Min	Max	**Times calibration**		Min	Max
Is current [A]:	**250**						
Thermal release [A]:	**250**	100	250	LR (tr) [s]:	**8**	0,5	16
LR Regolazione fine:	**250**	1	250				
CR (Im = x Ir): [I2T = ON]	**5**	1,5	10	CR [s]:	**0,1**	0,1	0,4
IST (Ist = x Is):	**12**	1,5	12	IST [s]:	**0,03**		
Neutral 1 - Ratio neutral/phase:	**1**						
Neutral 2 - Ratio neutral/phase:	**1**						

Unit:	**QGBT-TR2 C-19**	
Zone - Panel:	CABINA GEN - BT	QGBT-TR2
Denomination 1:	Riserva	
Denomination 2:	-	
Manufacturer - Mark:	SCHNEIDER ELECTRIC	COMPACT NSX250H
Poles - Rated current IN:	4	250
Manufacturer - Releaser ref-mark:	SCHNEIDER ELECTRIC	MLOGIC 5.2E NSX (LSI) 250A
Ith [A]:	250	
Im [A]:	1250	
Ist [A]:	3000	



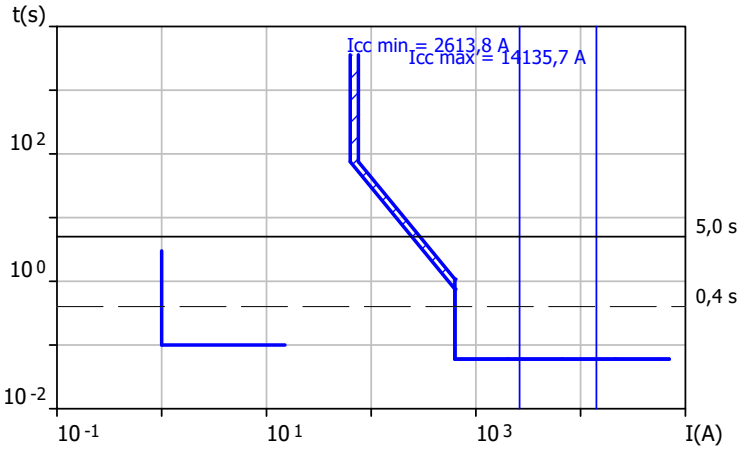
Currents adjustment		Min	Max	**Times calibration**		Min	Max
Is current [A]:	**250**						
Thermal release [A]:	**250**	100	250	LR (tr) [s]:	**8**	0,5	16
LR Regolazione fine:	**250**	1	250				
CR (Im = x Ir): [I2T = ON]	**5**	1,5	10	CR [s]:	**0,1**	0,1	0,4
IST (Ist = x Is):	**12**	1,5	12	IST [s]:	**0,03**		
Neutral 1 - Ratio neutral/phase:	**1**						
Neutral 2 - Ratio neutral/phase:	**1**						

Unit:	**QGBT-TR2 C-20**	
Zone - Panel:	CABINA GEN - BT	QGBT-TR2
Denomination 1:	RIF2 Quadro di	
Denomination 2:	Rifasamento Automatico 2	
Manufacturer - Mark:	SCHNEIDER ELECTRIC	COMPACT NSX400H
Poles - Rated current IN:	4	400
Manufacturer - Releaser ref-mark:	SCHNEIDER ELECTRIC	MLOGIC 5.3A NSX (LSI) 400A
Ith [A]:	400	
Im [A]:	4000	
Ist [A]:	4800	



Currents adjustment		Min	Max	**Times calibration**		Min	Max
Is current [A]:	**400**						
Thermal release [A]:	**400**	160	400	LR (tr) [s]:	**8**	0,5	16
LR Regolazione fine:	**400**	1	400				
CR (Im = x Ir): [I2T = ON]	**10**	1,5	10	CR [s]:	**0,1**	0,1	0,4
IST (Ist = x Is):	**12**	1,5	12	IST [s]:	**0,03**		
Neutral 1 - Ratio neutral/phase:	**1**						
Neutral 2 - Ratio neutral/phase:	**1**						

Unit:	**QELS-N C-07**	
Zone - Panel:	QUADRI SECONDARI	QELS-N
Denomination 1:	UPS-C	
Denomination 2:	Continuità	
Manufacturer - Mark:	ABB	XT4H 160
Poles - Rated current IN:	4	160
Manufacturer - Releaser ref-mark:	ABB	XT4 Ekip LS/I
Ith [A]:	63	
Im [A]:	630	
Ist [A]:	630	

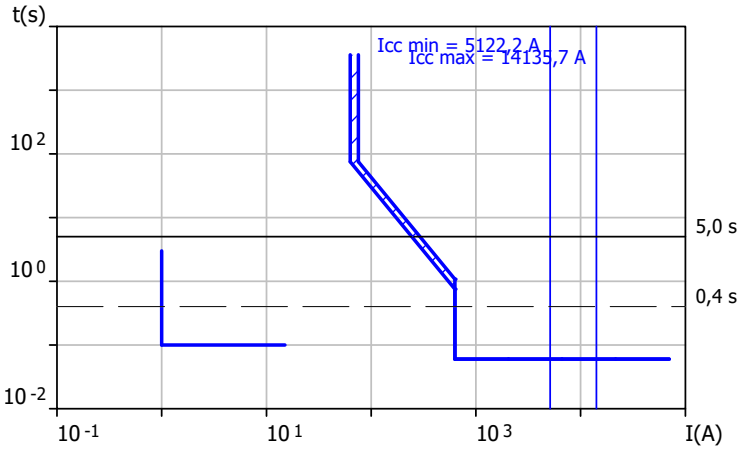


Currents adjustment		Min	Max	**Times calibration**		Min	Max
Is current [A]:	**63**						
LR (Ir = x Is):	**1**	0,4	1	LR (tr) [s]:	**12**	12	36
CR (Im = x Is):	**10**	1	10	CR [s]:	**0,1**	0,1	0,2
IST (Ist = x Is):	**10**	1	10	IST [s]:	**0,06**		
Neutral 1 - Ratio neutral/phase:	**1**						
Neutral 2 - Ratio neutral/phase:	**1**						

Manufacturer - Mark:	ABB	XT1 RC Sel 200
Poles - Rated current IN:	4	160
Manufacturer - Releaser ref-mark:	-	-
Ith [A]:	-	
Im [A]:	-	
Ist [A]:	-	

Currents adjustment		Min	Max	**Times calibration**		Min	Max
Residual-current release [A]:	**1**	0,03	10	T2 [s]:	**0,1**	0,1	3

Unit:	**QELS-N C-18**	
Zone - Panel:	QUADRI SECONDARI	QELS-N
Denomination 1:	Riserva	
Denomination 2:	-	
Manufacturer - Mark:	ABB	XT4H 160
Poles - Rated current IN:	4	160
Manufacturer - Releaser ref-mark:	ABB	XT4 Ekip LS/I
Ith [A]:	63	
Im [A]:	630	
Ist [A]:	630	

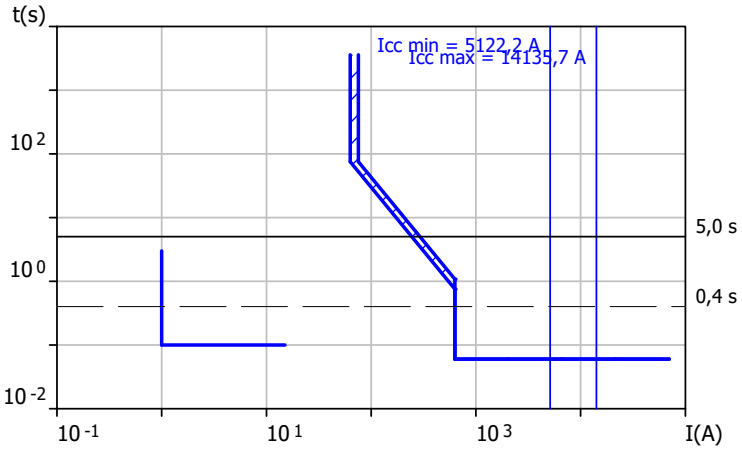


Currents adjustment		Min	Max	**Times calibration**		Min	Max
Is current [A]:	**63**						
LR (Ir = x Is):	**1**	0,4	1	LR (tr) [s]:	**12**	12	36
CR (Im = x Is):	**10**	1	10	CR [s]:	**0,1**	0,1	0,2
IST (Ist = x Is):	**10**	1	10	IST [s]:	**0,06**		
Neutral 1 - Ratio neutral/phase:	**1**						
Neutral 2 - Ratio neutral/phase:	**1**						

Manufacturer - Mark:	ABB	XT1 RC Sel 200
Poles - Rated current IN:	4	160
Manufacturer - Releaser ref-mark:	-	-
Ith [A]:	-	
Im [A]:	-	
Ist [A]:	-	

Currents adjustment		Min	Max	**Times calibration**		Min	Max
Residual-current release [A]:	**1**	0,03	10	T2 [s]:	**0,1**	0,1	3

Unit:	**QELS-N C-19**	
Zone - Panel:	QUADRI SECONDARI	QELS-N
Denomination 1:	Riserva	
Denomination 2:	-	
Manufacturer - Mark:	ABB	XT4H 160
Poles - Rated current IN:	4	160
Manufacturer - Releaser ref-mark:	ABB	XT4 Ekip LS/I
Ith [A]:	63	
Im [A]:	630	
Ist [A]:	630	

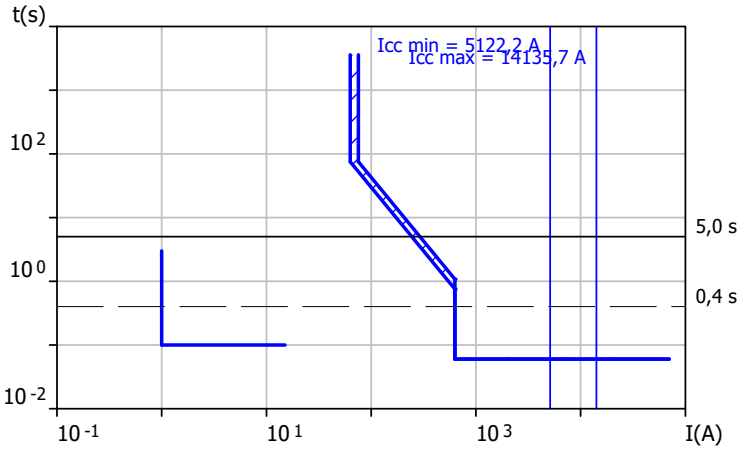


Currents adjustment		Min	Max	**Times calibration**		Min	Max
Is current [A]:	**63**						
LR (Ir = x Is):	**1**	0,4	1	LR (tr) [s]:	**12**	12	36
CR (Im = x Is):	**10**	1	10	CR [s]:	**0,1**	0,1	0,2
IST (Ist = x Is):	**10**	1	10	IST [s]:	**0,06**		
Neutral 1 - Ratio neutral/phase:	**1**						
Neutral 2 - Ratio neutral/phase:	**1**						

Manufacturer - Mark:	ABB	XT1 RC Sel 200
Poles - Rated current IN:	4	160
Manufacturer - Releaser ref-mark:	-	-
Ith [A]:	-	
Im [A]:	-	
Ist [A]:	-	

Currents adjustment		Min	Max	**Times calibration**		Min	Max
Residual-current release [A]:	**1**	0,03	10	T2 [s]:	**0,1**	0,1	3

Unit:	**QELS-N C-20**	
Zone - Panel:	QUADRI SECONDARI	QELS-N
Denomination 1:	Riserva	
Denomination 2:	-	
Manufacturer - Mark:	ABB	XT4H 160
Poles - Rated current IN:	4	160
Manufacturer - Releaser ref-mark:	ABB	XT4 Ekip LS/I
Ith [A]:	63	
Im [A]:	630	
Ist [A]:	630	

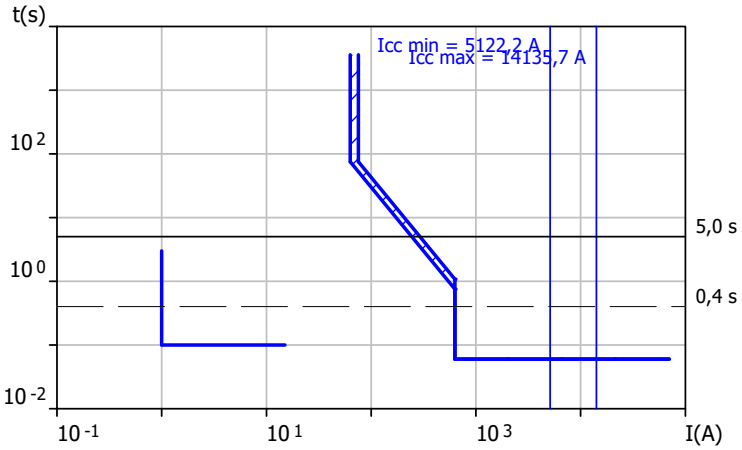


Currents adjustment		Min	Max	**Times calibration**		Min	Max
Is current [A]:	**63**						
LR (Ir = x Is):	**1**	0,4	1	LR (tr) [s]:	**12**	12	36
CR (Im = x Is):	**10**	1	10	CR [s]:	**0,1**	0,1	0,2
IST (Ist = x Is):	**10**	1	10	IST [s]:	**0,06**		
Neutral 1 - Ratio neutral/phase:	**1**						
Neutral 2 - Ratio neutral/phase:	**1**						

Manufacturer - Mark:	ABB	XT1 RC Sel 200
Poles - Rated current IN:	4	160
Manufacturer - Releaser ref-mark:	-	-
Ith [A]:	-	
Im [A]:	-	
Ist [A]:	-	

Currents adjustment		Min	Max	**Times calibration**		Min	Max
Residual-current release [A]:	**1**	0,03	10	T2 [s]:	**0,1**	0,1	3

Unit:	**QELS-N C-21**	
Zone - Panel:	QUADRI SECONDARI	QELS-N
Denomination 1:	Riserva	
Denomination 2:	-	
Manufacturer - Mark:	ABB	XT4H 160
Poles - Rated current IN:	4	160
Manufacturer - Releaser ref-mark:	ABB	XT4 Ekip LS/I
Ith [A]:	63	
Im [A]:	630	
Ist [A]:	630	

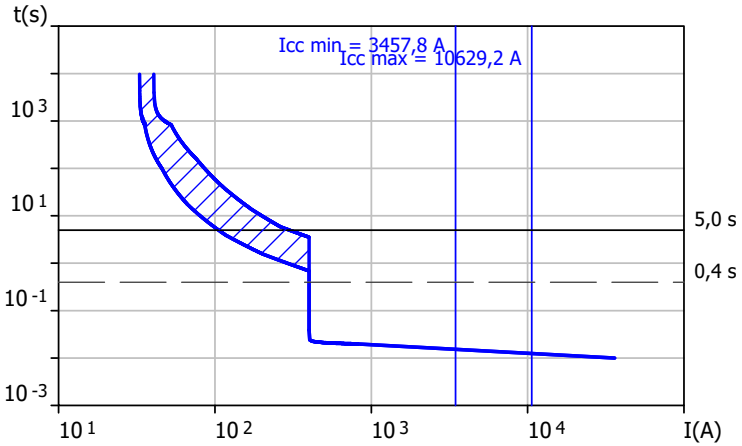


Currents adjustment		Min	Max	**Times calibration**		Min	Max
Is current [A]:	**63**						
LR (Ir = x Is):	**1**	0,4	1	LR (tr) [s]:	**12**	12	36
CR (Im = x Is):	**10**	1	10	CR [s]:	**0,1**	0,1	0,2
IST (Ist = x Is):	**10**	1	10	IST [s]:	**0,06**		
Neutral 1 - Ratio neutral/phase:	**1**						
Neutral 2 - Ratio neutral/phase:	**1**						

Manufacturer - Mark:	ABB	XT1 RC Sel 200
Poles - Rated current IN:	4	160
Manufacturer - Releaser ref-mark:	-	-
Ith [A]:	-	
Im [A]:	-	
Ist [A]:	-	

Currents adjustment		Min	Max	**Times calibration**		Min	Max
Residual-current release [A]:	**1**	0,03	10	T2 [s]:	**0,1**	0,1	3

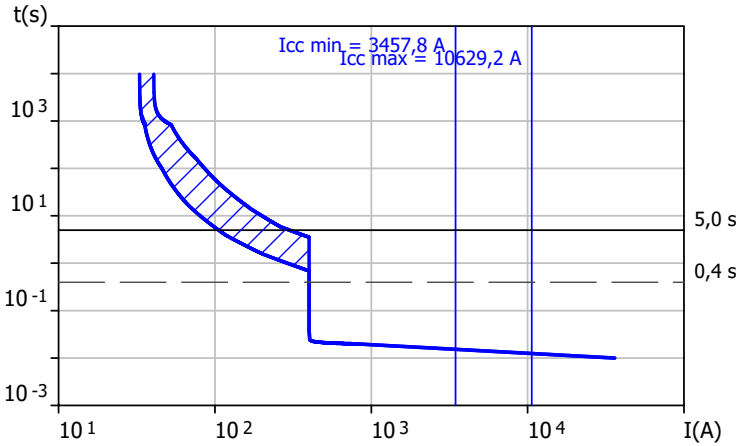
Unit:	**QELN-N C-15**	
Zone - Panel:	QUADRI SECONDARI	QELN-N
Denomination 1:	Riserva	
Denomination 2:	-	
Manufacturer - Mark:	SCHNEIDER ELECTRIC	COMPACT NSX160F
Poles - Rated current IN:	4	160
Manufacturer - Releaser ref-mark:	SCHNEIDER ELECTRIC	TM32D NSX
Ith [A]:	32	
Im [A]:	-	
Ist [A]:	400	



Currents adjustment		Min	Max
Is current [A]:	**32**		
LR (Ir = x Is):	**1**	0,7	1
IST (Ist = x Is):	**12,5**		
Neutral 1 - Ratio neutral/phase:	**1**		
Neutral 2 - Ratio neutral/phase:	**1**		

Times calibration		Min	Max
IST [s]:	**0,01**		

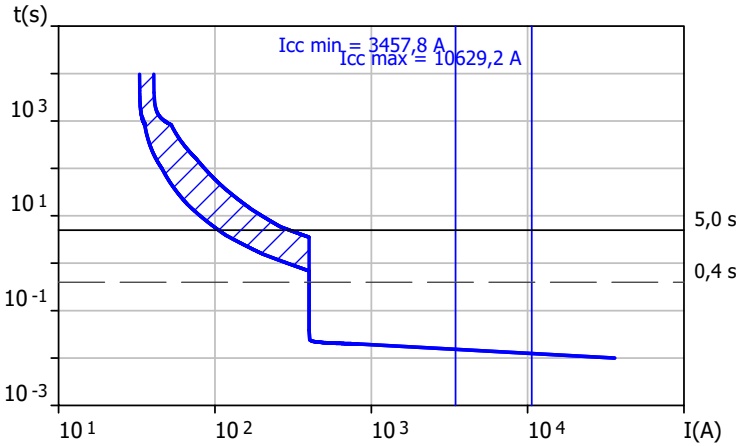
Unit:	**QELN-N C-16**	
Zone - Panel:	QUADRI SECONDARI	QELN-N
Denomination 1:	Riserva	
Denomination 2:	-	
Manufacturer - Mark:	SCHNEIDER ELECTRIC	COMPACT NSX160F
Poles - Rated current IN:	4	160
Manufacturer - Releaser ref-mark:	SCHNEIDER ELECTRIC	TM32D NSX
Ith [A]:	32	
Im [A]:	-	
Ist [A]:	400	



Currents adjustment		Min	Max
Is current [A]:	**32**		
LR (Ir = x Is):	**1**	0,7	1
IST (Ist = x Is):	**12,5**		
Neutral 1 - Ratio neutral/phase:	**1**		
Neutral 2 - Ratio neutral/phase:	**1**		

Times calibration		Min	Max
IST [s]:	**0,01**		

Unit:	**QELN-N C-17**	
Zone - Panel:	QUADRI SECONDARI	QELN-N
Denomination 1:	Riserva	
Denomination 2:	-	
Manufacturer - Mark:	SCHNEIDER ELECTRIC	COMPACT NSX160F
Poles - Rated current IN:	4	160
Manufacturer - Releaser ref-mark:	SCHNEIDER ELECTRIC	TM32D NSX
Ith [A]:	32	
Im [A]:	-	
Ist [A]:	400	

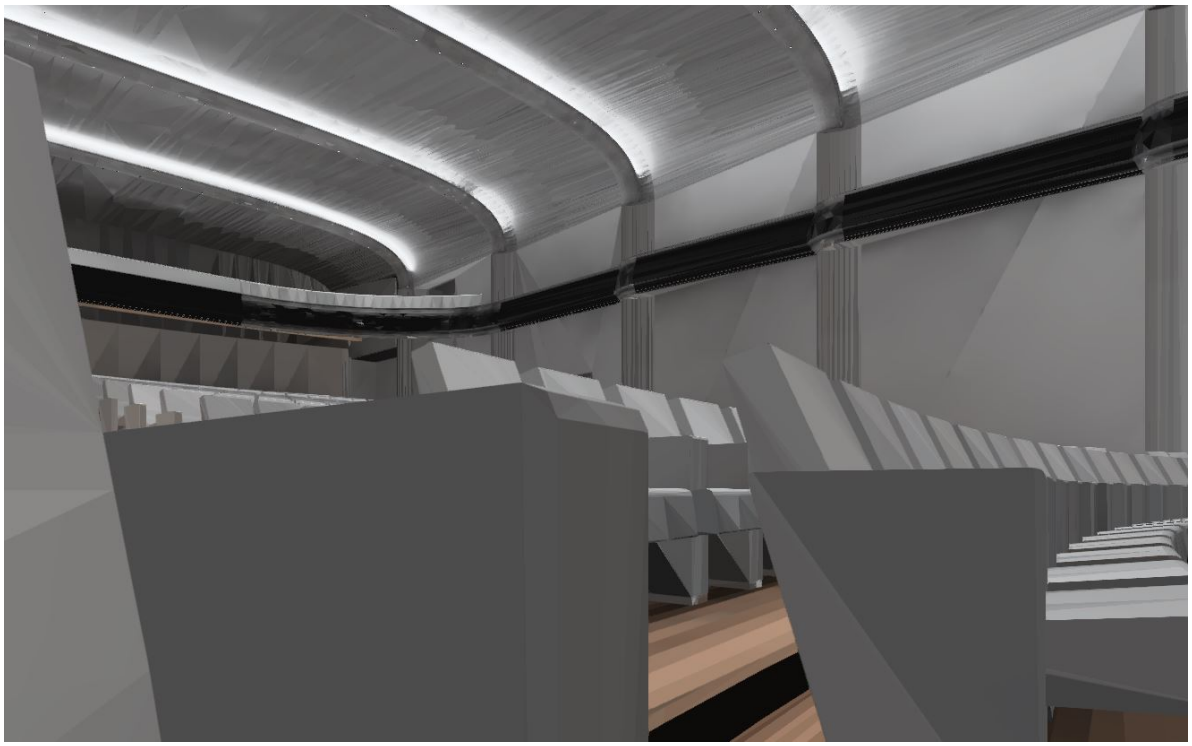


Currents adjustment		Min	Max
Is current [A]:	**32**		
LR (Ir = x Is):	**1**	0,7	1
IST (Ist = x Is):	**12,5**		
Neutral 1 - Ratio neutral/phase:	**1**		
Neutral 2 - Ratio neutral/phase:	**1**		

Times calibration		Min	Max
IST [s]:	**0,01**		

ALLEGATO 2

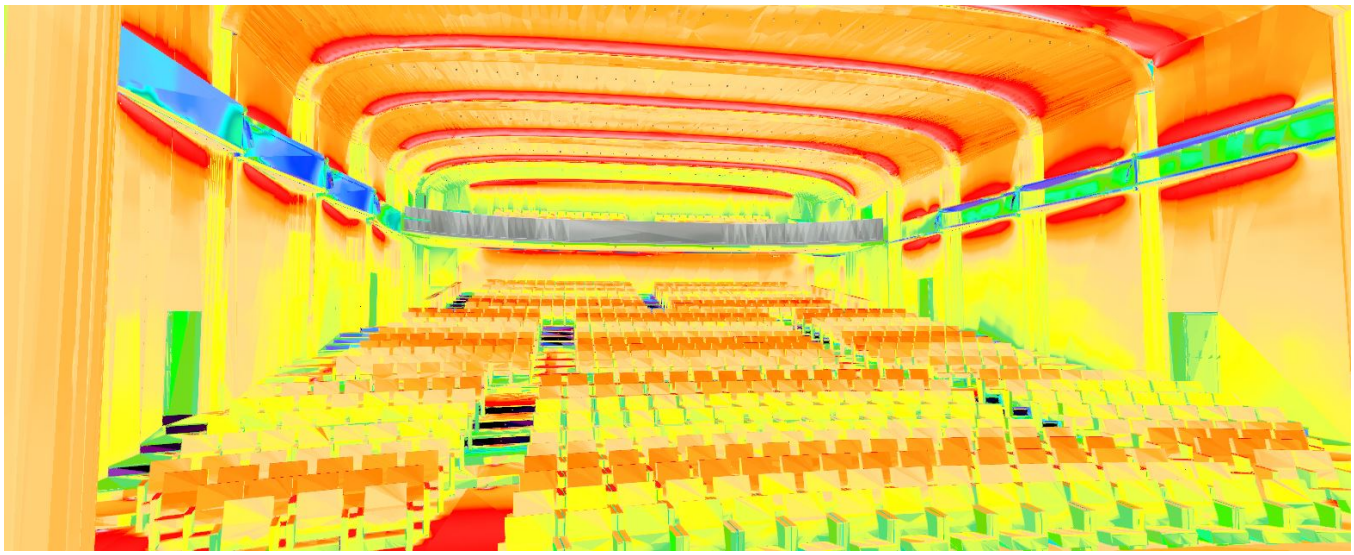
VERIFICHE ILLUMINOTECNICHE

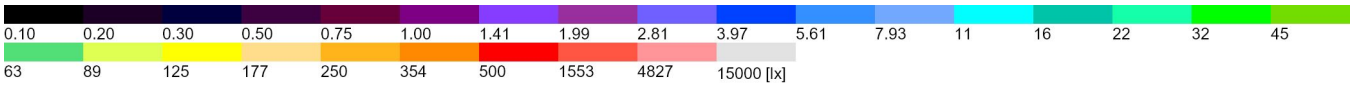


Teatro Nuovo di Torino_Report di calcolo illuminotecnico

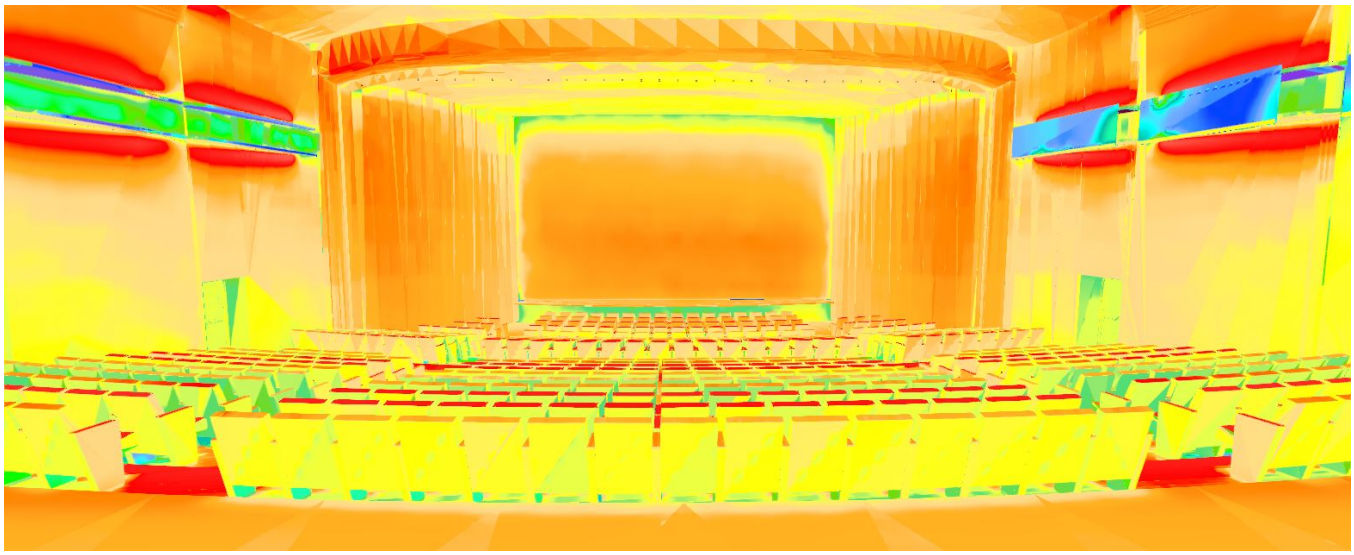
Created with DIALux

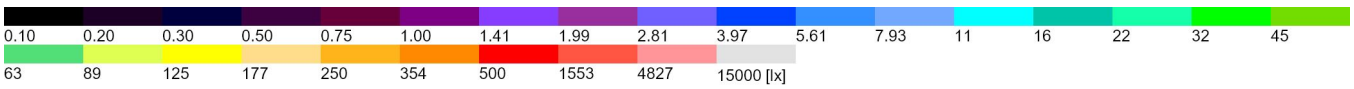
Immagini




0.10
0.20
0.30
0.50
0.75
1.00
1.41
1.99
2.81
3.97
5.61
7.93
11
16
22
32
45
63
89
125
177
250
354
500
1553
4827
15000 [lx]

Immagini



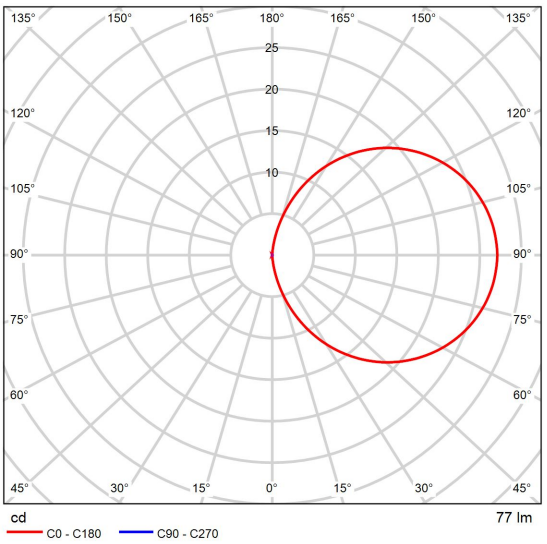

0.10
0.20
0.30
0.50
0.75
1.00
1.41
1.99
2.81
3.97
5.61
7.93
11
16
22
32
45
63
89
125
177
250
354
500
1553
4827
15000 [lx]

Scheda tecnica prodotto

BEGA - Apparecchio da incasso a parete

BEGA

Articolo No.	50116.2K3
P	3.0 W
$\Phi_{Lampadina}$	–
$\Phi_{Lampada}$	77 lm
η	–
Efficienza	25.7 lm/W
CCT	3114 K
CRI	90



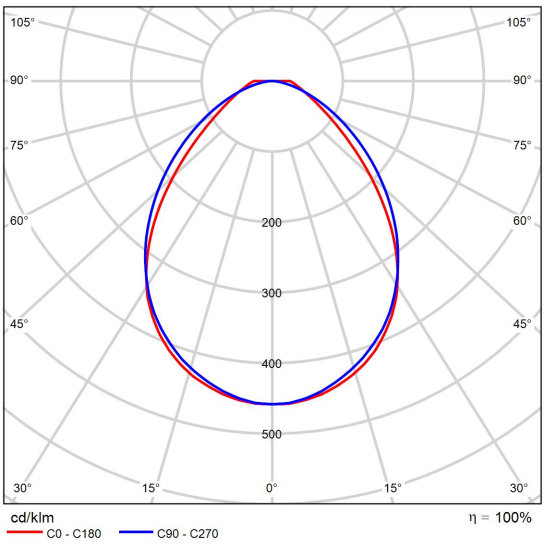
CDL polare

BEGA ACCENTA Apparecchio da incasso 50116.2K3 per interni. Luce a fascio libero. LED, 3 W Potenza luminoso apparecchi, Flusso luminoso apparecchi 78 lm, temperatura di colore 3000 K. Indice di resa del colore (CRI) > 90. Con modulo LED BEGA sostituibile con protezione dalle alte temperature e durata prevista di almeno 50.000 ore di esercizio. 20 anni di garanzia di disponibilità dei pezzi di ricambio su modulo LED e parti usurabili. Con alimentatore LED 220-240 V, 0/50-60 Hz. Armatura lampada in fusione di zinco. Vetro di sicurezza, interno bianco. Anello di chiusura superficie Acciaio inox. Una presa per il montaggio in scatola da incasso con morsetti di fissaggio è compresa nella consegna dell' apparecchio. Cavo di allacciamento alla rete fino a 10,5 mm, max. 3 x 1,5 qmm. Apparecchio per l'installazione in fori d'incasso con misure Ø 68 x 65 mm. Diametro apparecchi 75 mm, profondità 65 mm.

Scheda tecnica prodotto

LED Linear - XOOCOVE HYDRA LD25 W830 DR IP40 1010

Articolo No.	W830
P	25.0 W
$\Phi_{Lampadina}$	2462 lm
$\Phi_{Lampada}$	2465 lm
η	100.11 %
Efficienza	98.6 lm/W
CCT	3000 K
CRI	85

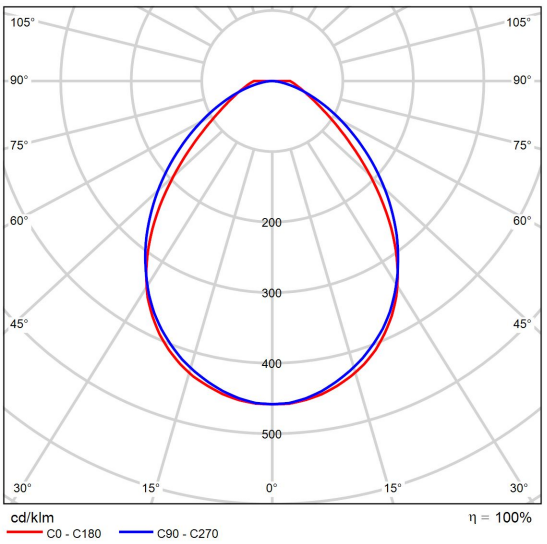


CDL polare

Scheda tecnica prodotto

LED Linear - XOOCOVE HYDRA LD25 W830 DR IP40 2510

Articolo No.	W830
P	62.5 W
$\Phi_{Lampadina}$	6155 lm
$\Phi_{Lampada}$	6162 lm
η	100.11 %
Efficienza	98.6 lm/W
CCT	3000 K
CRI	85

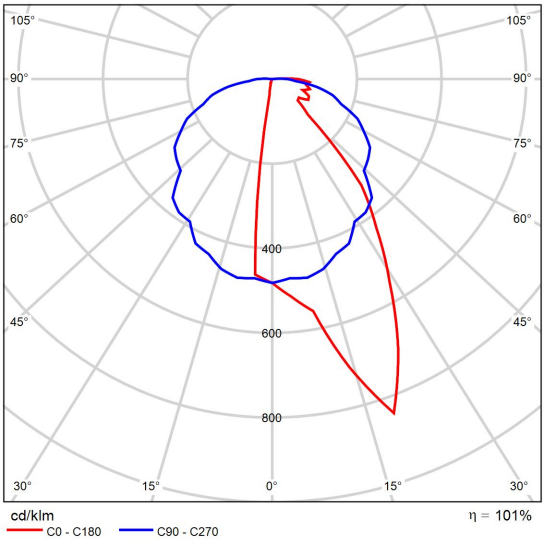


CDL polare

Scheda tecnica prodotto

Linea Light Group - Clip X 2W Steel Wall Outdoor | powerLed 630mA Cri80

Articolo No.	92313W70
P	2.0 W
$\Phi_{Lampadina}$	174 lm
$\Phi_{Lampada}$	175 lm
η	100.84 %
Efficienza	87.7 lm/W
CCT	3000 K
CRI	100

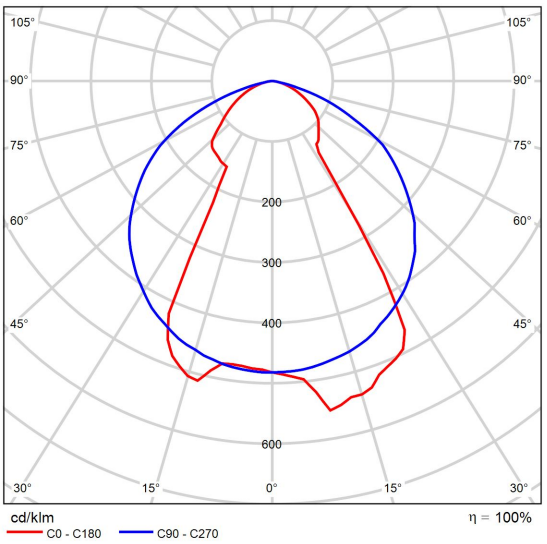


CDL polare

Scheda tecnica prodotto

LINERGY S.r.l. - PRODIGY WALL 1,5H SE IP40 DALI

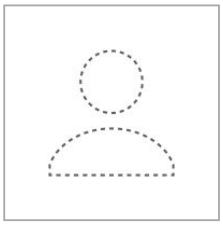
Articolo No.	PW1616
P	0.2 W
$\Phi_{Lampadina}$	223 lm
$\Phi_{Lampada}$	223 lm
η	99.91 %
Efficienza	1114.0 lm/W
CCT	6000 K
CRI	80



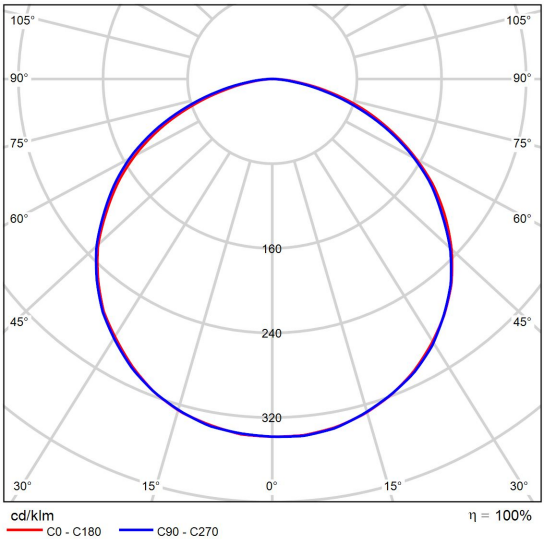
CDL polare

Scheda tecnica prodotto

Tridonic Jennersdorf - LLE FLEX EXC Gen4



Articolo No.	1
P	0.6 W
$\Phi_{Lampadina}$	60 lm
$\Phi_{Lampada}$	60 lm
η	100.01 %
Efficienza	100.0 lm/W
CCT	3000 K
CRI	100

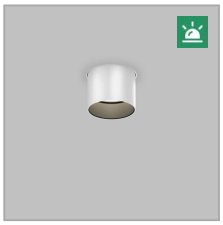


CDL polare

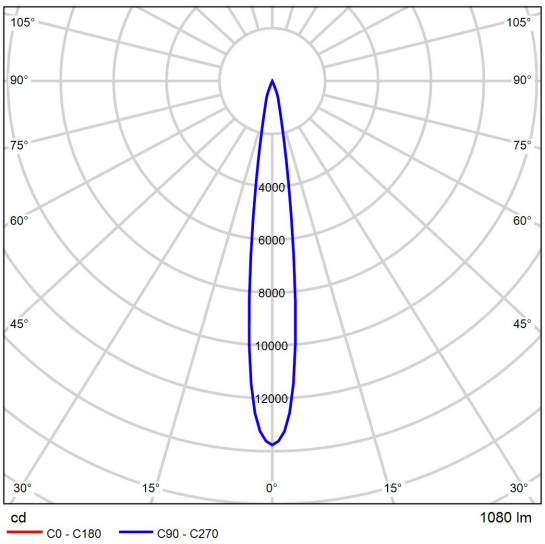
DIALux

Scheda tecnica prodotto

XAL - MOVE IN 45 round trimless COB LED 930 S



Articolo No.	063-8121517S_063-8812117_002-90723
P	14.5 W
$P_{Illuminazione\ di\ emergenza}$	14.5 W
$\Phi_{Lampadina}$	–
$\Phi_{Lampada}$	1080 lm
$\Phi_{Illuminazione\ di\ emergenza}$	1080 lm
η	–
Efficienza	74.3 lm/W
CCT	3000 K
CRI	90
ELF	100 %



CDL polare

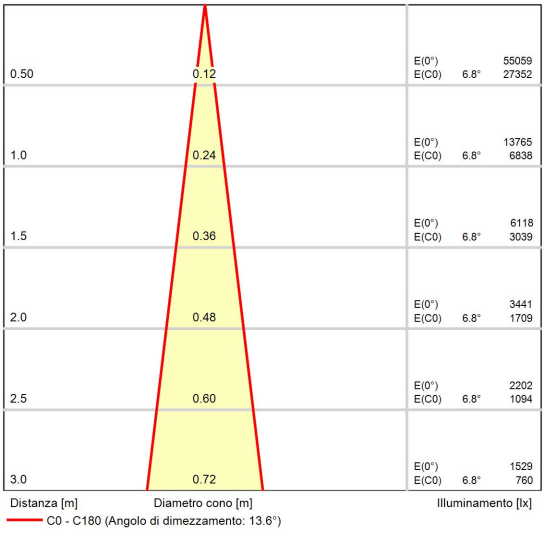


Diagramma conico

Elemento faretto rotondo in alluminio; superficie verniciata a polveri bianco; montaggio senza attrezzi con sistema brevettato a moschettone sferico; per incasso a scomparsa in soffitti di cartongesso; adatto per soffitti con spessore di 9-25 mm; utensile di montaggio speciale per una facile installazione dell'housing senza bordi disponibile come accessorio; faretto regolabile in altezza senza utensili: a filo soffitto o sporgente di 25 mm o 35 mm; raffreddamento passivo del LED grazie alla geometria ottimizzata del dissipadore; con tecnologia COB (Chip on Board) per la massima efficienza; assenza di ombre multiple; colore della luce 3000 K; binning iniziale MacAdam ≤ 2 SDCM; CRI ≥ 90; 80 % min. del flusso luminoso dopo 50000 ore di esercizio; LED a efficienza energetica con un'elevata resa cromatica; riflettore d'alta qualità con ottica sfaccettata in alluminio applicato a vapore; emissione precisa con angolo di emissione di 14°; ottimo anti-

Scheda tecnica prodotto

XAL - MOVE IN 45 round trimless COB LED 930 S

abbagliamento con livelli punto luce rientrati; unità ottico disponibile come accessorio; accessorio indicato a parte; grado protezione IP20; classe isolamento 2 220-240V; incl. convertitore DALI-2; ;
Convertitore cablato su lato secondario; sorgente luminosa sostituibile da tecnici specializzati autorizzati; dispositivo di controllo sostituibile da tecnici specializzati autorizzati;

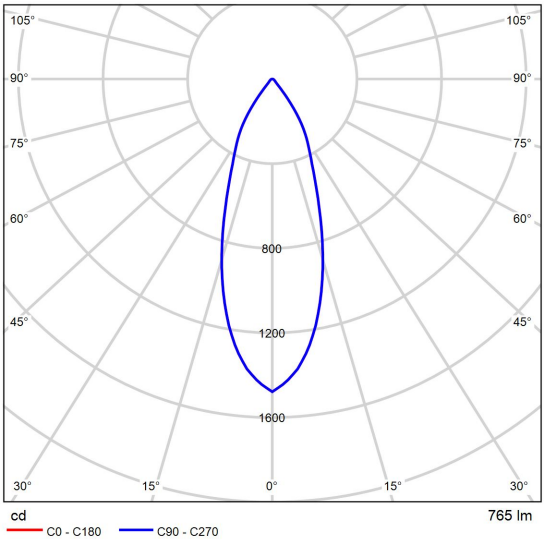
Generale: Soffitto, Semi-incasso, bianco, Mounting set bianco traffico, RAL9016, IP20, 1080 lm
LED: 3000 K, CRI ≥ 90, L80 / 50000 h, initial MacAdam ≤ 2 SDCM , R$_g$: 100, R$_f$: 91, R$_{1-15}$: 88, MR 0.59, MDER 0.53
Ottico: spot, angolo del fascio 14°
Elettrico: DALI-2, 14.5 W, inset 12.4 W, classe isolamento 2 220-240V, 74 lm/W, 1 Ind. Dali
Dati fisici: senza bordo, diametro 75 mm, altezza 106 mm, 0.3 kg
Sagoma: diametro 65 mm, spessore min. soffitto 9 mm, spessore max. soffitto 25 mm, profondità di incasso 230 mm

063-8121517S_063-8812117_002-90723

Scheda tecnica prodotto

XAL - SASSO PRO 80 adjustable offset trim round cob 930 F

Articolo No.	048-2310517F_052-1932327
P	8.3 W
$P_{Illuminazione\ di\ emergenza}$	8.3 W
$\Phi_{Lampadina}$	–
$\Phi_{Lampada}$	765 lm
$\Phi_{Illuminazione\ di\ emergenza}$	765 lm
η	–
Efficienza	92.7 lm/W
CCT	3000 K
CRI	90
ELF	100 %



CDL polare

Faretto a incasso rotondo in alluminio pressofuso con livello faro rientrato; superficie verniciata a polveri bianco; girevole 360° e orientabile 35°; montaggio senza attrezzi con sistema brevettato a moschettone sferico; cassaforma rotondo; con bordo perimetrale bianco traffico; adatto per soffitti con spessore di 2-25 mm; raffreddamento passivo del LED grazie alla geometria ottimizzata del dissipadore; con tecnologia COB (Chip on Board) per la massima efficienza; assenza di ombre multiple; colore della luce 3000 K; binning iniziale MacAdam ≤ 3 SDCM; CRI ≥ 90; 90 % min. del flusso luminoso dopo 50000 ore di esercizio; LED a efficienza energetica con un'elevata resa cromatica; incl. riflettore in plastica di qualità con ottica a sfaccettature sferiche; alluminio applicato a vapore; riflesso colore neutro grazie ad una assoluta libertà dei colori di interferenza; per una presentazione brillante degli oggetti; emissione precisa con angolo di emissione di 37°; installabile e

Scheda tecnica prodotto

XAL - SASSO PRO 80 adjustable offset trim round cob 930 F

intercambiabile senza attrezzi; unità ottiche disponibili come accessori; accessorio indicato a parte; grado protezione IP20; classe isolamento 2 220-240V; incl. convertitore, non dimmerabile; ; Convertitore cablato su lato secondario; scatola di allacciamento per cablaggio passante, tripolare o pentapolare, disponibile come accessorio; sorgente luminosa sostituibile da tecnici specializzati autorizzati; dispositivo di controllo sostituibile da tecnici specializzati autorizzati;

Generale: Soffitto, Incasso, orientabile max 35°, rotazione 360°, bianco, Set di montaggio bianco traffico, RAL9016, IP20, 765 lm
LED: 3000 K, CRI ≥ 90, L90 / 50000 h, MacAdam iniziale ≤ 3 SDCM , Rg: 100, Rf: 89, R{1-15}: 89, MR 0.56, MDER 0.51
Ottico: flood, angolo del fascio 37°, UGR < 22, PstLM ≤ 1.0, SVM ≤ 0.4
Dati elettrici: non DIM, 8.3 W, classe isolamento 2 220-240V, 92 lm/W, inserto 124 lm/W
Dati fisici: bordo, diametro 98 mm, altezza 83 mm, 0.43 kg
Sagoma: diametro 92 mm, spessore min. del soffitto 2 mm, spessore max. del soffitto 25 mm, profondità di incasso 130 mm

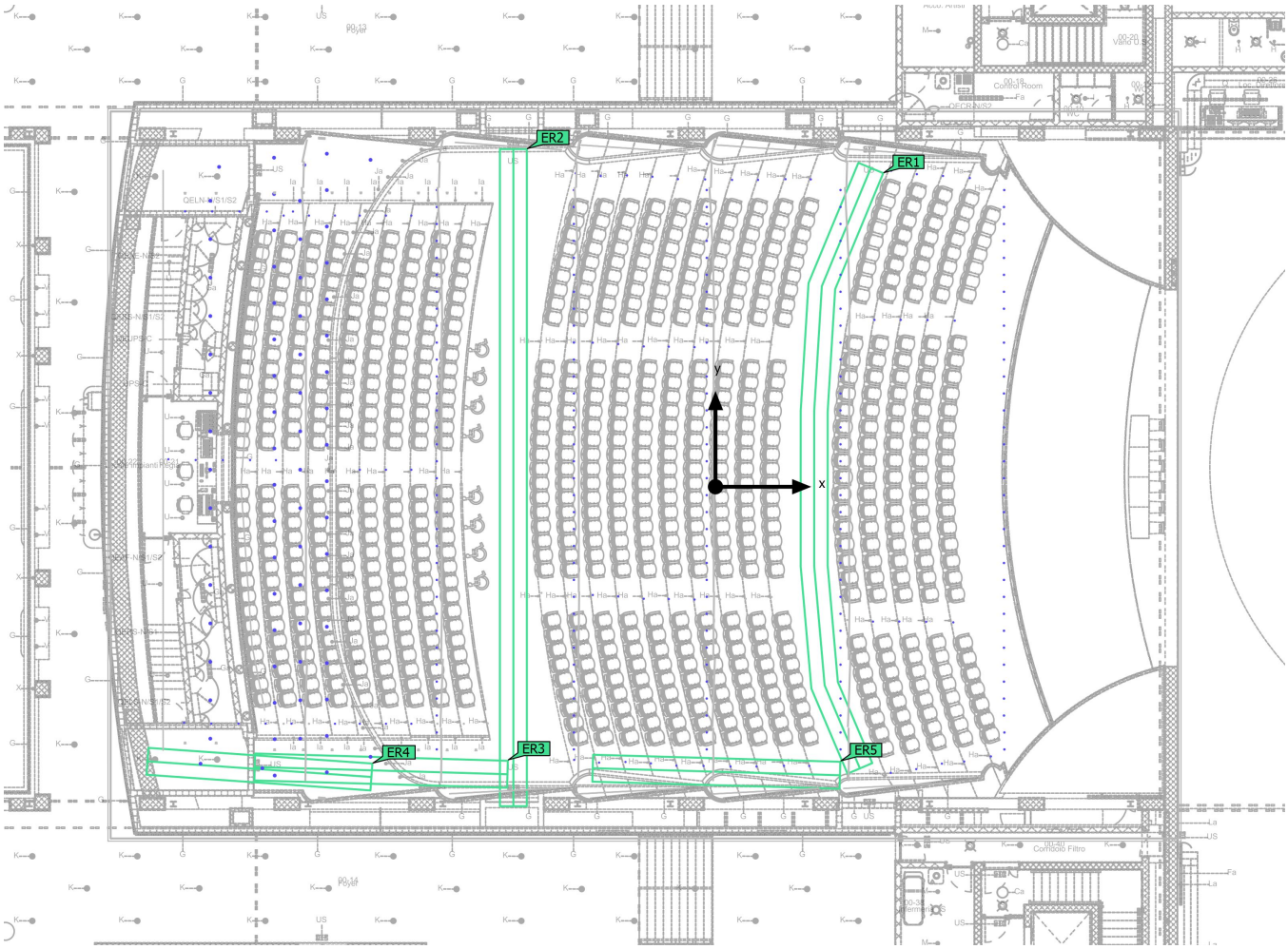
048-2310517F_052-1932327

γ	C0°	C90°	C0°- C360°
0°-180°	1478.20	1478.20	1478.20
60°-90°	11.80	11.80	11.80

Tabella valori di abbagliamento [cd]

(Scena illuminazione di emergenza)

Oggetti di calcolo



(Scena illuminazione di emergenza)

Oggetti di calcolo

Superfici di calcolo

Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie di calcolo 1 - settore platea vicino al palco Illuminamento perpendicolare (adattivo) Altezza: 1.816 m	209 lx	11.3 lx	667 lx	0.054	0.017	CG1
Superficie di calcolo 2 -Platea Illuminamento perpendicolare (adattivo) Altezza: 3.171 m	308 lx	67.9 lx	724 lx	0.22	0.094	CG2
Circolazione Platea 2 Illuminamento perpendicolare (adattivo) Altezza: 4.000 m	85.8 lx	18.2 lx	157 lx	0.21	0.12	CG3
Superficie di calcolo 4 - Platea Illuminamento perpendicolare (adattivo) Altezza: 4.793 m	343 lx	82.7 lx	780 lx	0.24	0.11	CG4
Superficie di calcolo 5 - P1 - Area di circolazione Illuminamento perpendicolare (adattivo) Altezza: 8.712 m	196 lx	132 lx	240 lx	0.67	0.55	CG5
Superficie di calcolo - Ingresso balconata Illuminamento perpendicolare (adattivo) Altezza: 8.300 m	116 lx	4.67 lx	238 lx	0.040	0.020	CG6
Circolazione Platea 1 Illuminamento perpendicolare (adattivo) Altezza: 2.300 m	379 lx	60.5 lx	603 lx	0.16	0.10	CG7
Superficie di calcolo - Balconata posti a sedere Illuminamento perpendicolare (adattivo) Altezza: 9.307 m	144 lx	46.0 lx	371 lx	0.32	0.12	CG8
Circolazione Platea 4 Illuminamento perpendicolare (adattivo) Altezza: 4.000 m	174 lx	19.2 lx	461 lx	0.11	0.042	CG9
Circolazione Platea 3 Illuminamento perpendicolare (adattivo) Altezza: 2.765 m	113 lx	30.2 lx	403 lx	0.27	0.075	CG10
Superficie di calcolo 1 - settore platea vicino al palco Illuminamento orizzontale Altezza: 1.816 m	208 lx	12.7 lx	638 lx	0.061	0.020	CG1

(Scena illuminazione di emergenza)

Oggetti di calcolo

Superficie di calcolo 1 - settore platea vicino al palco Illuminamento perpendicolare Altezza: 1.816 m	206 lx	12.3 lx	633 lx	0.060	0.019	CG1
Superficie di calcolo 2 -Platea Illuminamento orizzontale Altezza: 3.171 m	317 lx	78.4 lx	712 lx	0.25	0.11	CG2
Superficie di calcolo 2 -Platea Illuminamento perpendicolare Altezza: 3.171 m	311 lx	77.1 lx	704 lx	0.25	0.11	CG2
Circolazione Platea 2 Illuminamento perpendicolare Altezza: 4.000 m	85.4 lx	15.6 lx	146 lx	0.18	0.11	CG3
Superficie di calcolo 4 - Platea Illuminamento perpendicolare Altezza: 4.793 m	342 lx	86.7 lx	780 lx	0.25	0.11	CG4
Superficie di calcolo 4 - Platea Illuminamento orizzontale Altezza: 4.793 m	351 lx	91.4 lx	795 lx	0.26	0.11	CG4
Superficie di calcolo 5 - P1 - Area di circolazione Illuminamento perpendicolare Altezza: 8.712 m	197 lx	148 lx	239 lx	0.75	0.62	CG5
Superficie di calcolo - Ingresso balconata Illuminamento perpendicolare Altezza: 8.300 m	116 lx	4.09 lx	237 lx	0.035	0.017	CG6
Circolazione Platea 1 Illuminamento perpendicolare Altezza: 2.300 m	377 lx	61.4 lx	600 lx	0.16	0.10	CG7
Superficie di calcolo - Balconata posti a sedere Illuminamento perpendicolare Altezza: 9.307 m	145 lx	52.1 lx	341 lx	0.36	0.15	CG8
Superficie di calcolo - Balconata posti a sedere Illuminamento orizzontale Altezza: 9.307 m	150 lx	53.2 lx	340 lx	0.35	0.16	CG8
Circolazione Platea 4 Illuminamento perpendicolare Altezza: 4.000 m	174 lx	17.6 lx	444 lx	0.10	0.040	CG9

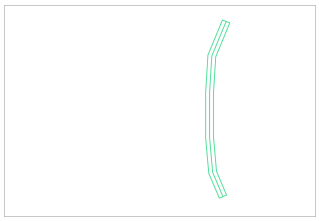
(Scena illuminazione di emergenza)

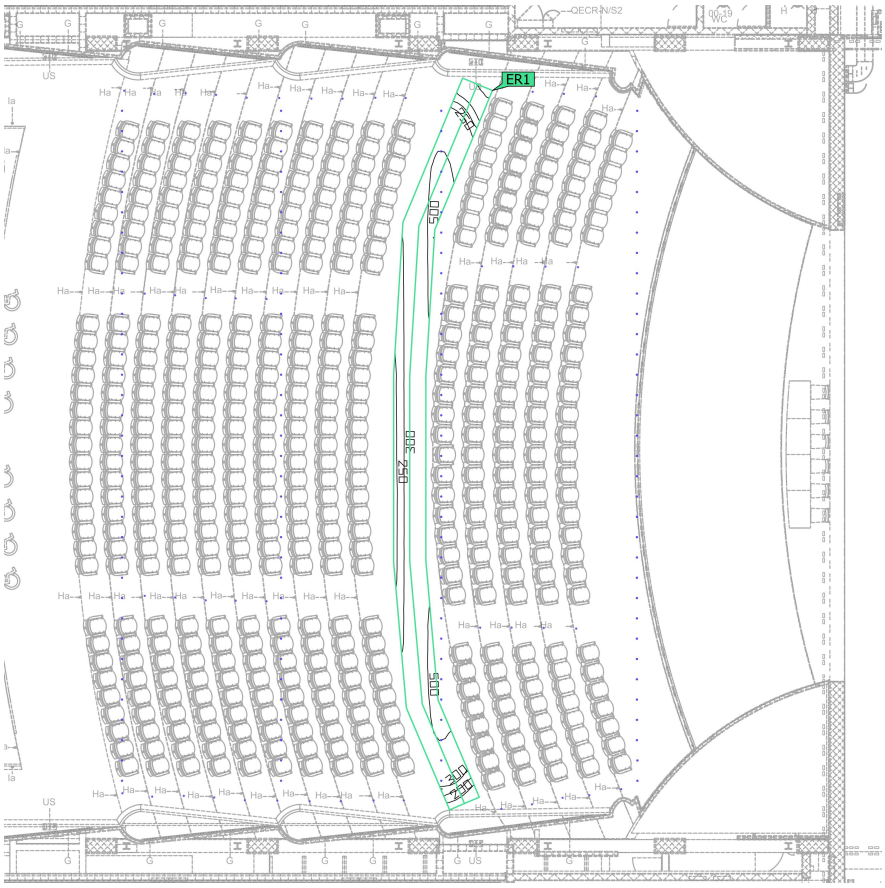
Oggetti di calcolo

Circolazione Platea 3 Illuminamento perpendicolare Altezza: 2.765 m	113 lx	28.6 lx	387 lx	0.25	0.074	CG10
Circolazione Platea 3 Illuminamento orizzontale Altezza: 2.765 m	115 lx	29.8 lx	393 lx	0.26	0.076	CG10

(Scena illuminazione di emergenza)

Via di esodo 1

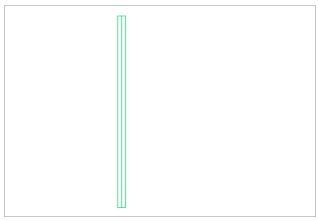


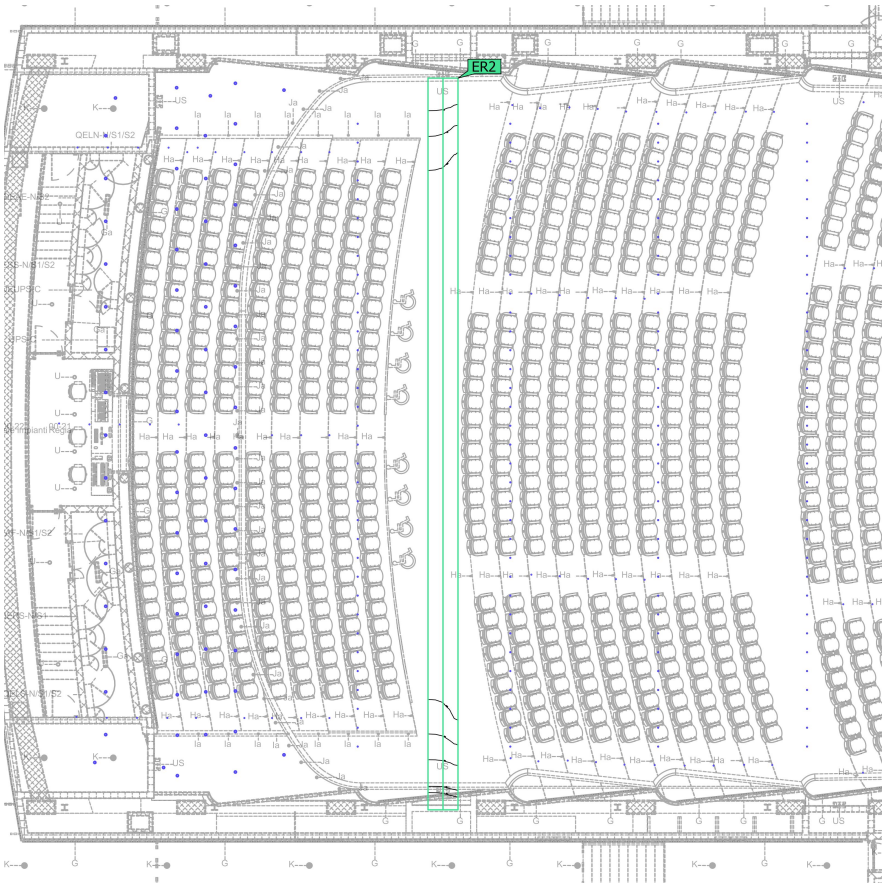


Proprietà	$E_{min.}$ Area centrale	E_{max} Area centrale	$E_{min.}$ Linea mediana	E_{max} Linea mediana	U_d	Indice
Via di esodo 1 Illuminamento perpendicolare (adattivo) Altezza: 1.357 m	87.7 lx	540 lx	100 lx	523 lx	0.19	ER1

(Scena illuminazione di emergenza)

Via di esodo 2

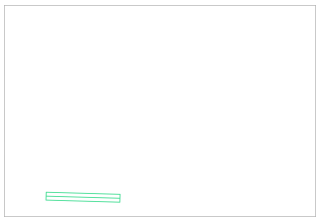


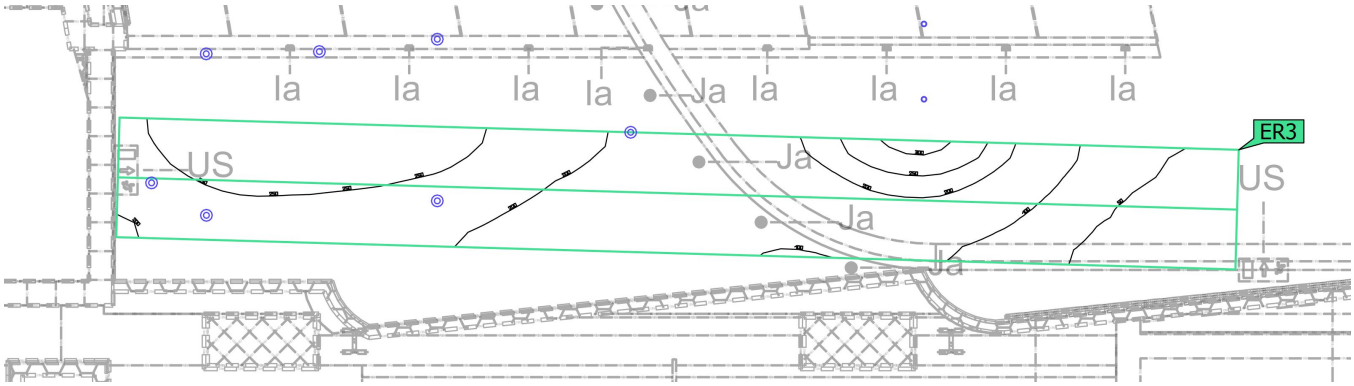


Proprietà	$E_{min.}$ Area centrale	E_{max} Area centrale	$E_{min.}$ Linea mediana	E_{max} Linea mediana	U_d	Indice
Via di esodo 2 Illuminamento perpendicolare (adattivo) Altezza: 3.075 m	12.3 lx	121 lx	13.4 lx	109 lx	0.12	ER2

(Scena illuminazione di emergenza)

Via di esodo 5

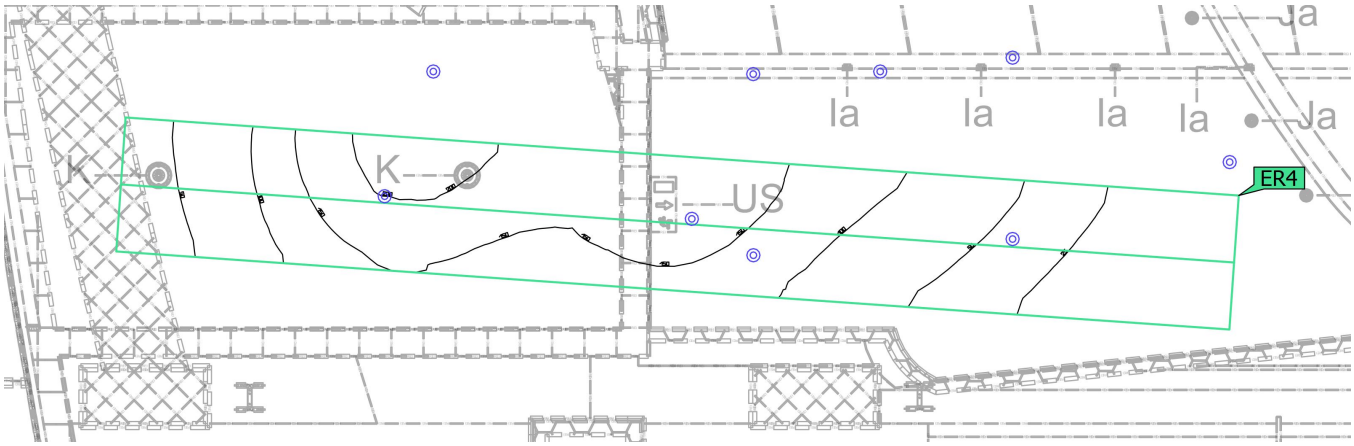




Proprietà	$E_{min.}$ Area centrale	E_{max} Area centrale	$E_{min.}$ Linea mediana	E_{max} Linea mediana	U_d	Indice
Via di esodo 5 Illuminamento perpendicolare (adattivo) Altezza: 3.013 m	27.8 lx	308 lx	37.2 lx	259 lx	0.14	ER3

Edificio 1 · Piano (Scena illuminazione di emergenza)

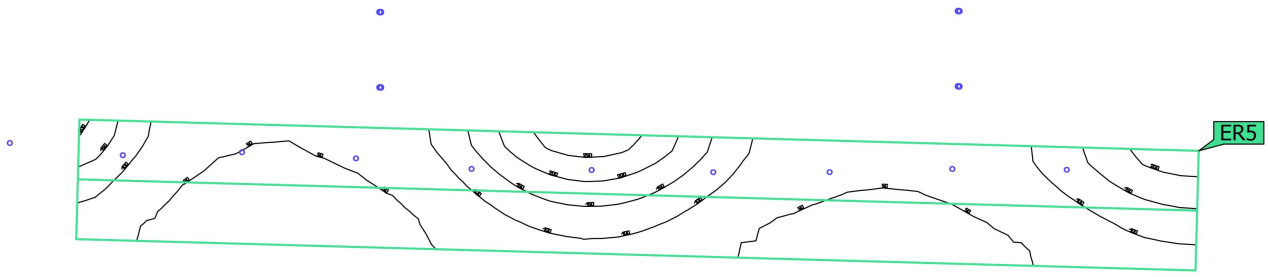
Via di esodo 6 - P1



Proprietà	$E_{min.}$ Area centrale	E_{max} Area centrale	$E_{min.}$ Linea mediana	E_{max} Linea mediana	U_d	Indice
Via di esodo 6 - P1 Illuminamento perpendicolare (adattivo) Altezza: 7.600 m	6.03 lx	223 lx	7.69 lx	197 lx	0.039	ER4

Edificio 1 · Piano (Scena illuminazione di emergenza)

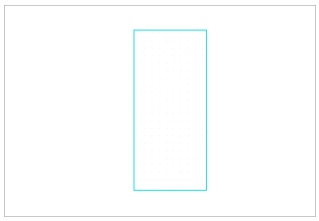
Via di esodo 8

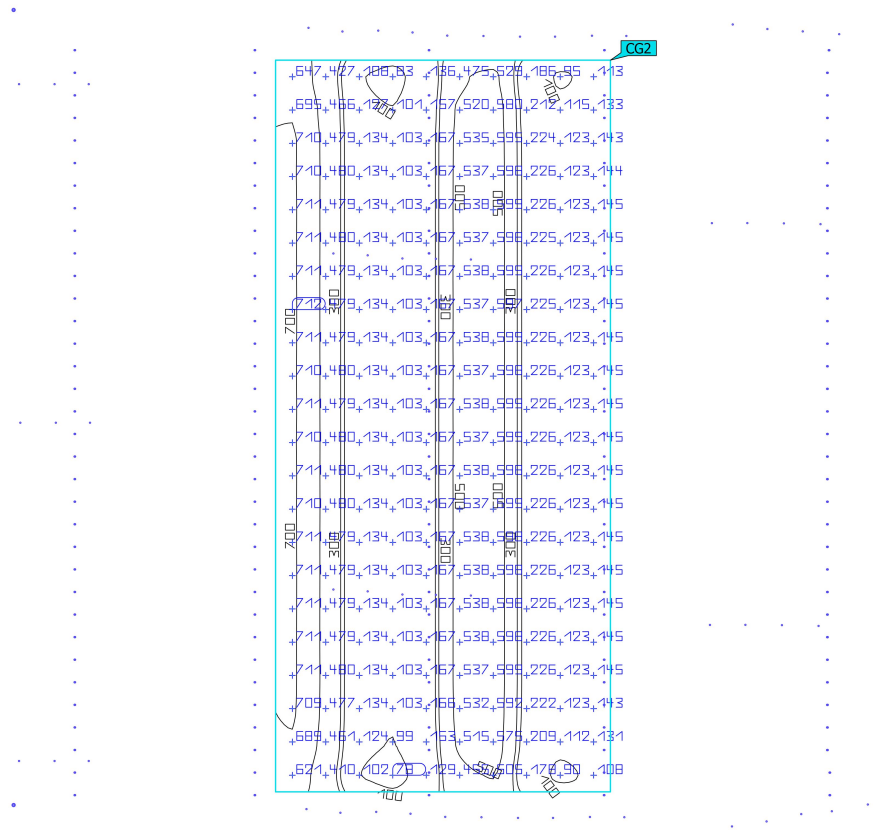


Proprietà	$E_{min.}$ Area centrale	E_{max} Area centrale	$E_{min.}$ Linea mediana	E_{max} Linea mediana	U_d	Indice
Via di esodo 8 Illuminamento perpendicolare (adattivo) Altezza: 1.500 m	30.5 lx	275 lx	40.6 lx	175 lx	0.23	ER5

Edificio 1 · Piano (Scena illuminazione di emergenza)

Superficie di calcolo 2 -Platea

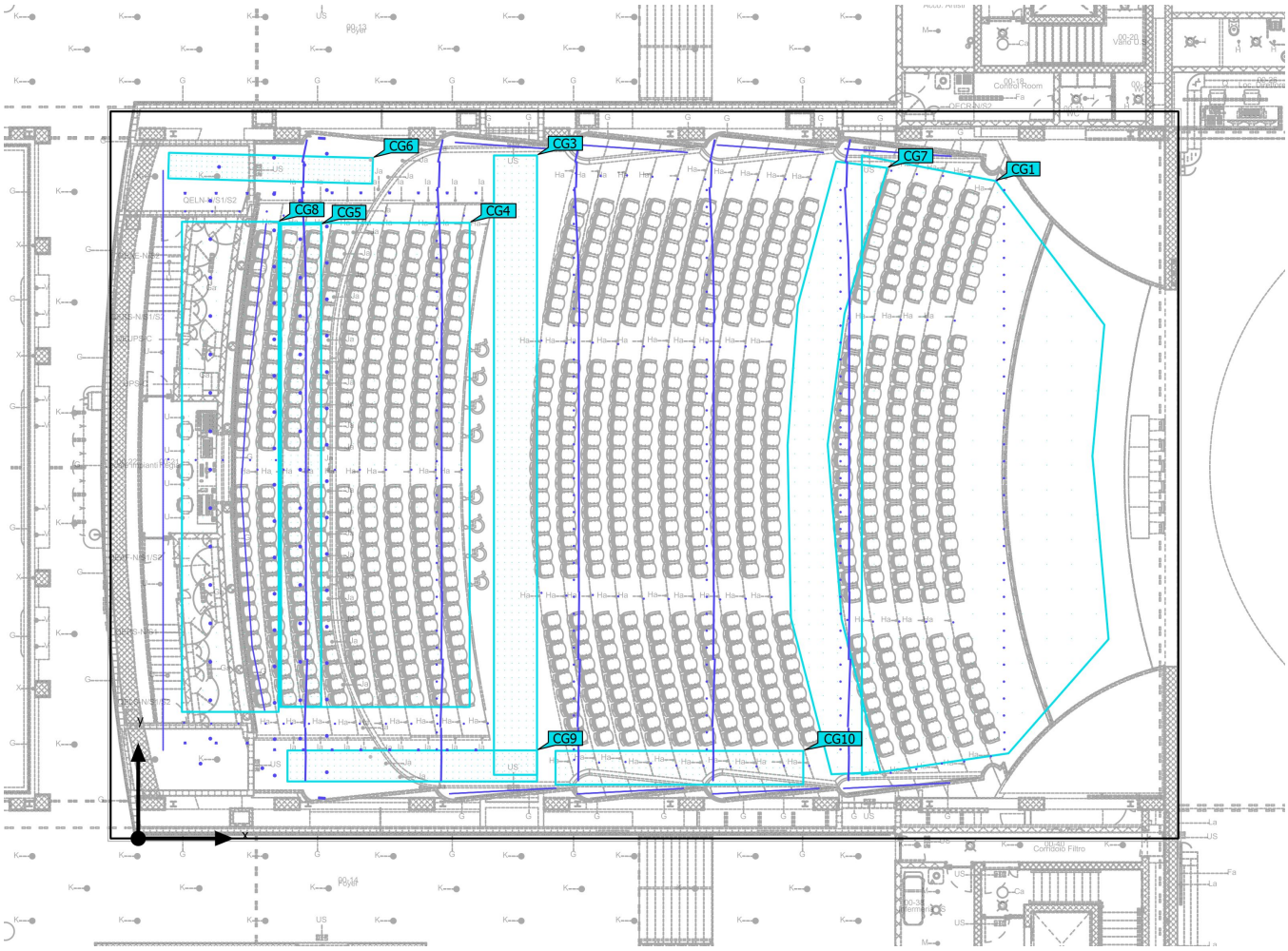




Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie di calcolo 2 -Platea Illuminamento orizzontale Altezza: 3.171 m	317 lx	78.4 lx	712 lx	0.25	0.11	CG2

Sala Principale (Scena luce 1)

Oggetti di calcolo



Sala Principale (Scena luce 1)

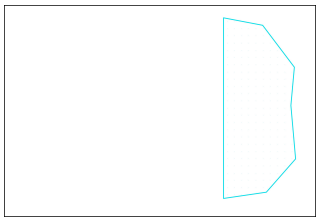
Oggetti di calcolo

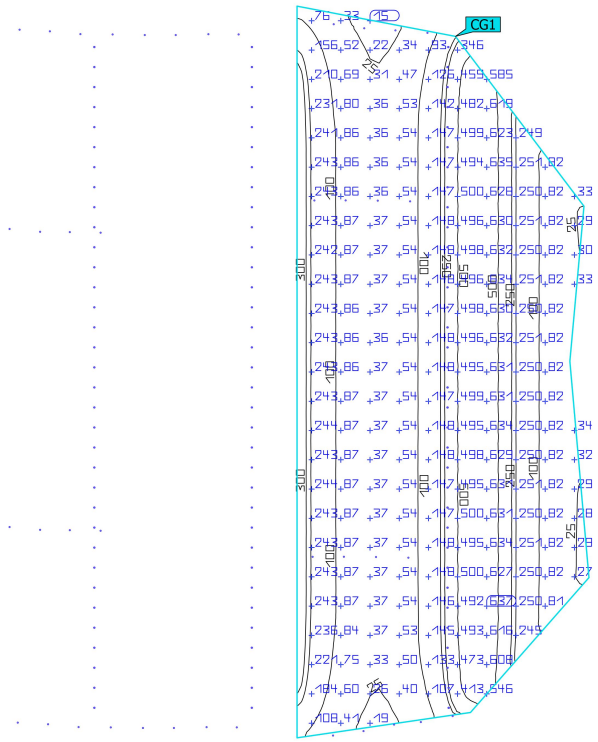
Superfici di calcolo

Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie di calcolo 1 - settore platea vicino al palco Illuminamento perpendicolare (adattivo) Altezza: 1.816 m	431 lx	208 lx	901 lx	0.48	0.23	CG1
Circolazione Platea 2 Illuminamento perpendicolare (adattivo) Altezza: 4.000 m	272 lx	243 lx	345 lx	0.89	0.70	CG3
Superficie di calcolo 4 - Platea Illuminamento perpendicolare (adattivo) Altezza: 4.793 m	467 lx	186 lx	981 lx	0.40	0.19	CG4
Superficie di calcolo 5 - P1 - Area di circolazione Illuminamento perpendicolare (adattivo) Altezza: 8.712 m	302 lx	220 lx	347 lx	0.73	0.63	CG5
Superficie di calcolo - Ingresso balconata Illuminamento perpendicolare (adattivo) Altezza: 8.300 m	207 lx	93.6 lx	311 lx	0.45	0.30	CG6
Circolazione Platea 1 Illuminamento perpendicolare (adattivo) Altezza: 2.300 m	594 lx	284 lx	827 lx	0.48	0.34	CG7
Superficie di calcolo - Balconata posti a sedere Illuminamento perpendicolare (adattivo) Altezza: 9.307 m	254 lx	125 lx	497 lx	0.49	0.25	CG8
Circolazione Platea 4 Illuminamento perpendicolare (adattivo) Altezza: 4.000 m	254 lx	130 lx	563 lx	0.51	0.23	CG9
Circolazione Platea 3 Illuminamento perpendicolare (adattivo) Altezza: 2.765 m	323 lx	235 lx	620 lx	0.73	0.38	CG10

Sala Principale (Scena illuminazione di emergenza)

Superficie di calcolo 1 - settore platea vicino al palco

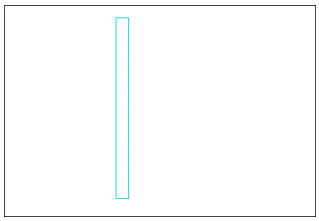


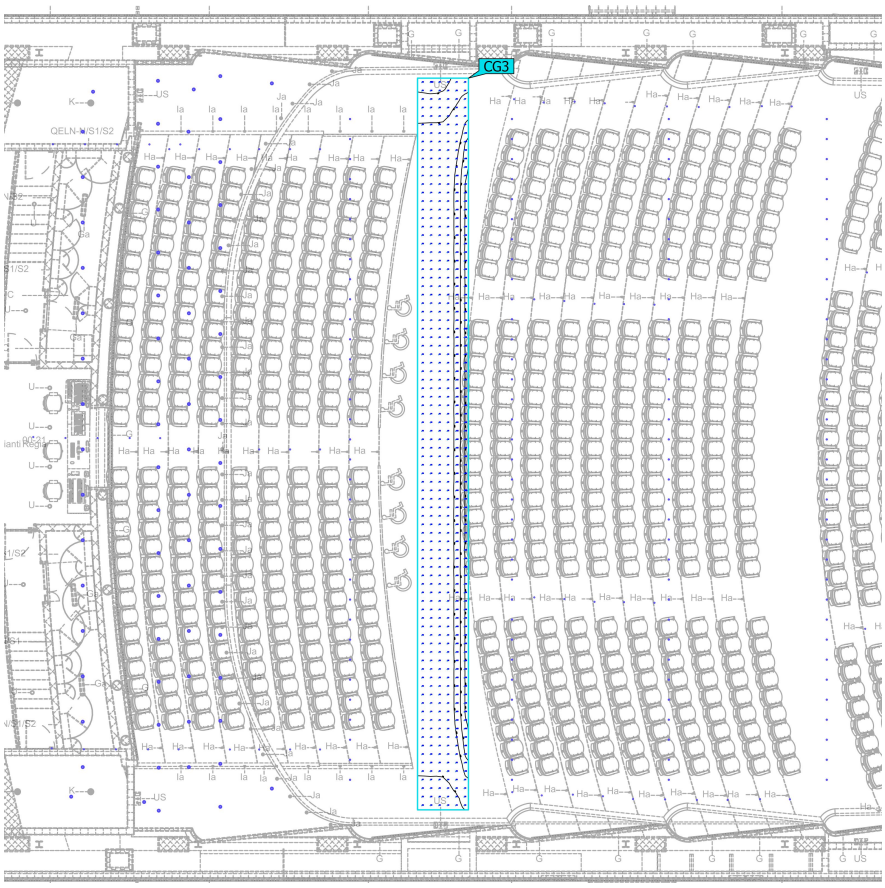


Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie di calcolo 1 - settore platea vicino al palco Illuminamento perpendicolare (adattivo) Altezza: 1.816 m	209 lx	11.3 lx	667 lx	0.054	0.017	CG1

Edificio 1 · Piano · Sala Principale (Scena illuminazione di emergenza)

Circolazione Platea 2

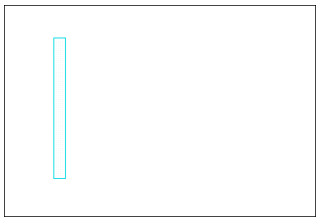


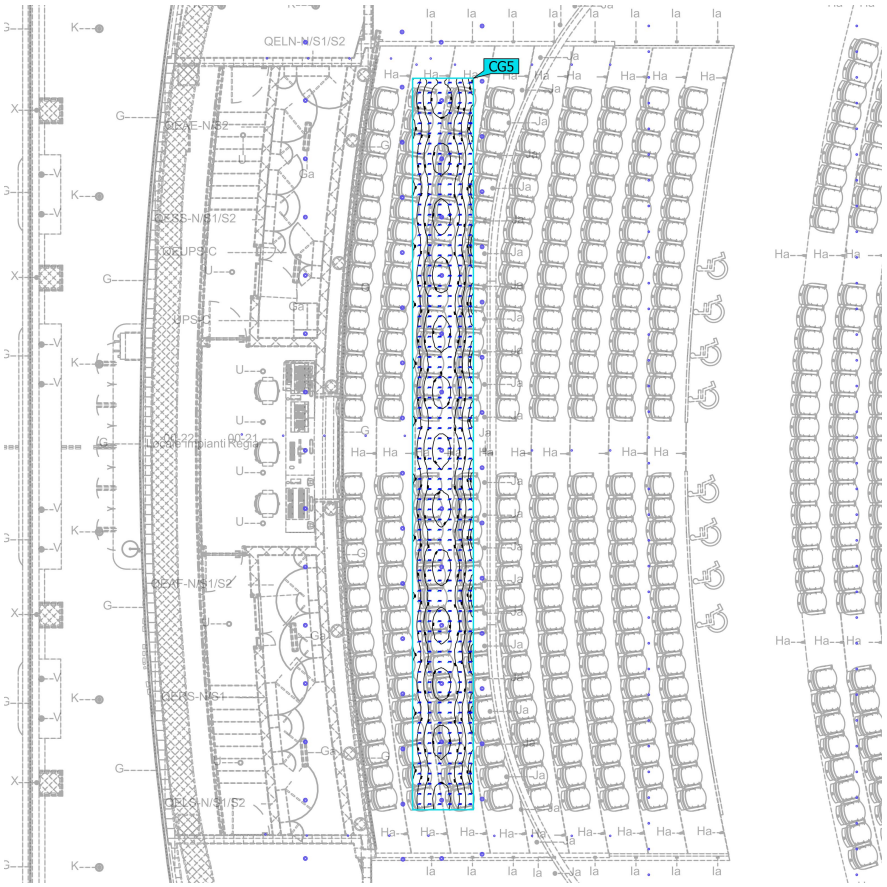


Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Circolazione Platea 2 Illuminamento perpendicolare (adattivo) Altezza: 4.000 m	85.8 lx	18.2 lx	157 lx	0.21	0.12	CG3

Edificio 1 · Piano · Sala Principale (Scena illuminazione di emergenza)

Superficie di calcolo 5 - P1 - Area di circolazione

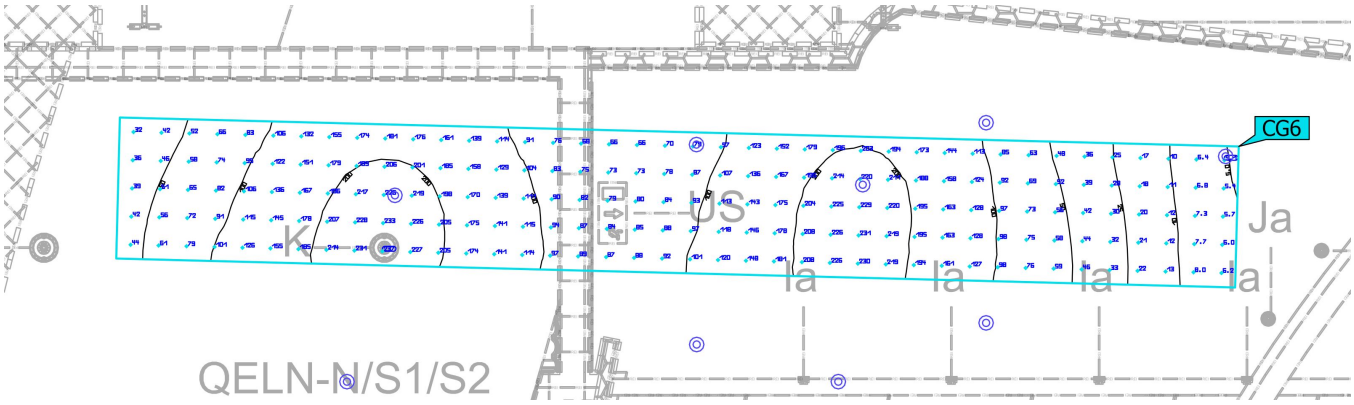




Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie di calcolo 5 - P1 - Area di circolazione Illuminamento perpendicolare (adattivo) Altezza: 8.712 m	196 lx	132 lx	240 lx	0.67	0.55	CG5

Sala Principale (Scena illuminazione di emergenza)

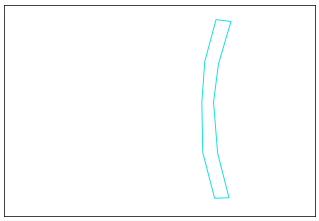
Superficie di calcolo - Ingresso balconata

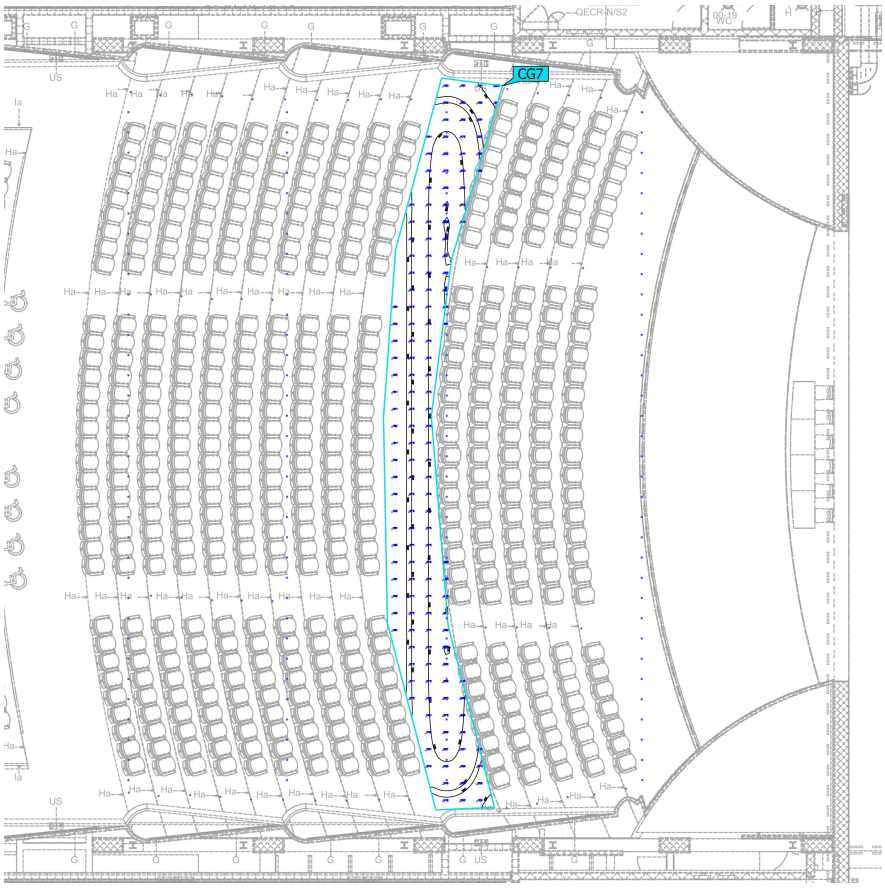


Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie di calcolo - Ingresso balconata Illuminamento perpendicolare (adattivo) Altezza: 8.300 m	116 lx	4.67 lx	238 lx	0.040	0.020	CG6

Edificio 1 · Piano · Sala Principale (Scena illuminazione di emergenza)

Circolazione Platea 1

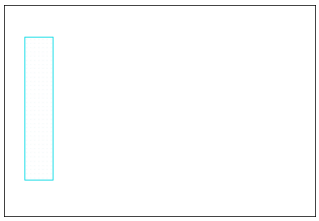


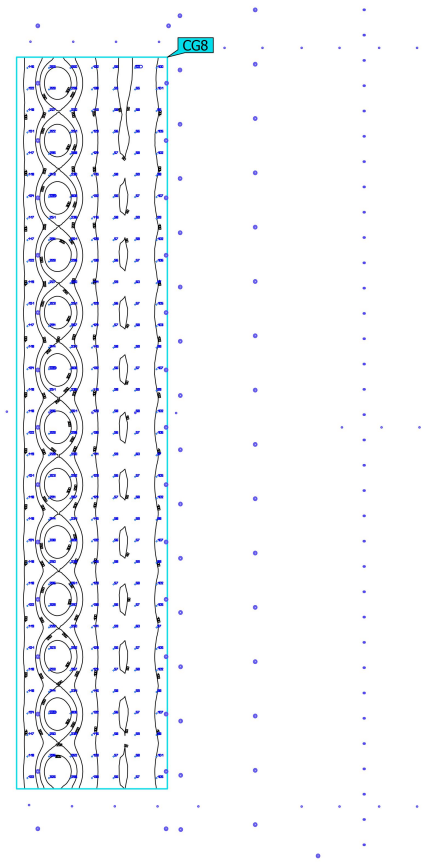


Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Circolazione Platea 1 Illuminamento perpendicolare (adattivo) Altezza: 2.300 m	379 lx	60.5 lx	603 lx	0.16	0.10	CG7

Sala Principale (Scena illuminazione di emergenza)

Superficie di calcolo - Balconata posti a sedere

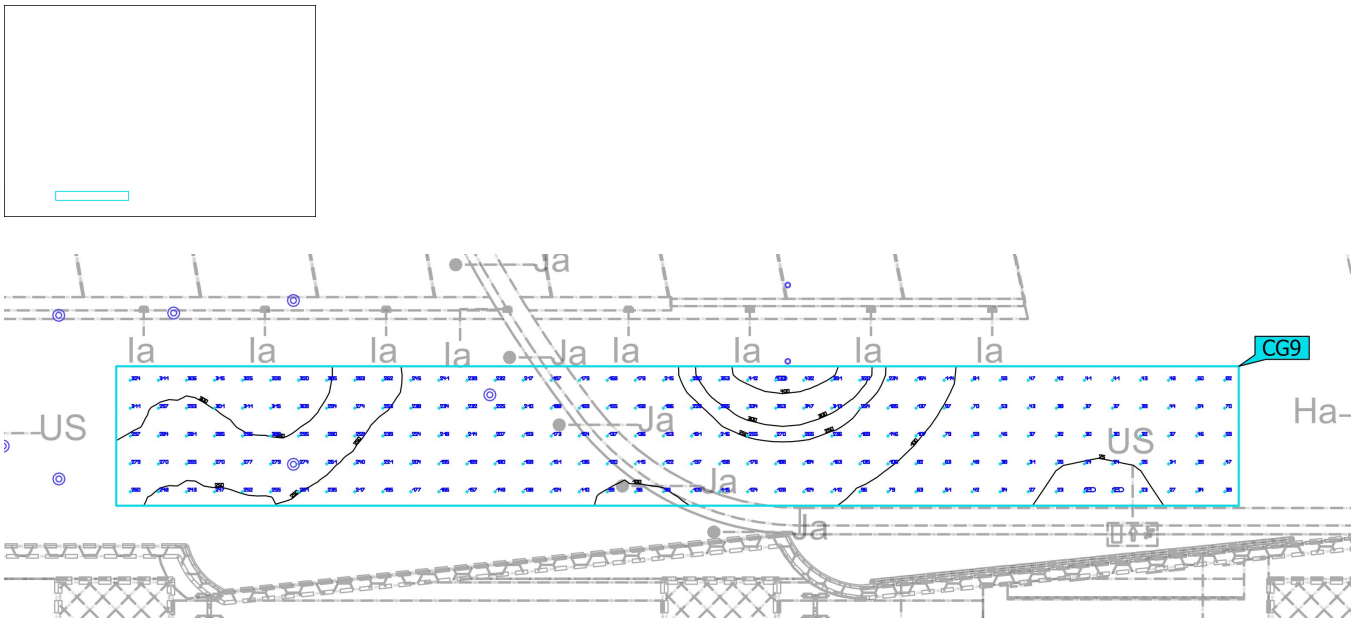




Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie di calcolo - Balconata posti a sedere Illuminamento perpendicolare (adattivo) Altezza: 9.307 m	144 lx	46.0 lx	371 lx	0.32	0.12	CG8

Edificio 1 · Piano · Sala Principale (Scena illuminazione di emergenza)

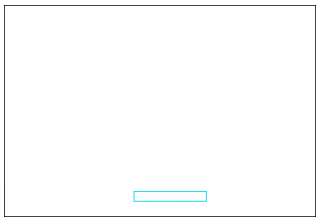
Circolazione Platea 4

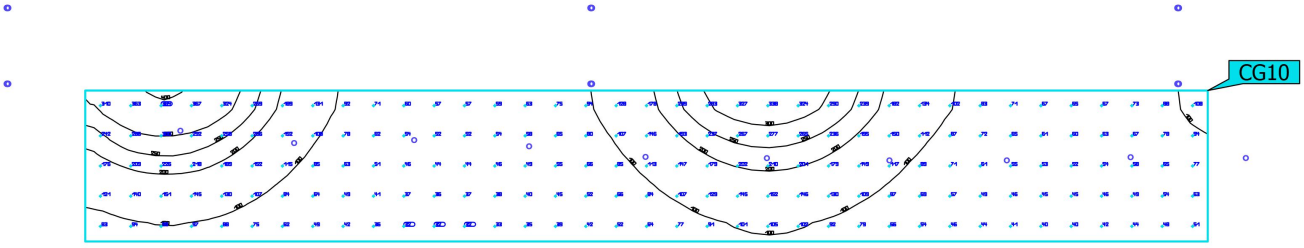


Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Circolazione Platea 4 Illuminamento perpendicolare (adattivo) Altezza: 4.000 m	174 lx	19.2 lx	461 lx	0.11	0.042	CG9

Sala Principale (Scena illuminazione di emergenza)

Circolazione Platea 3

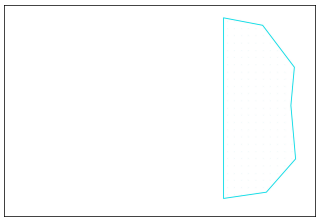


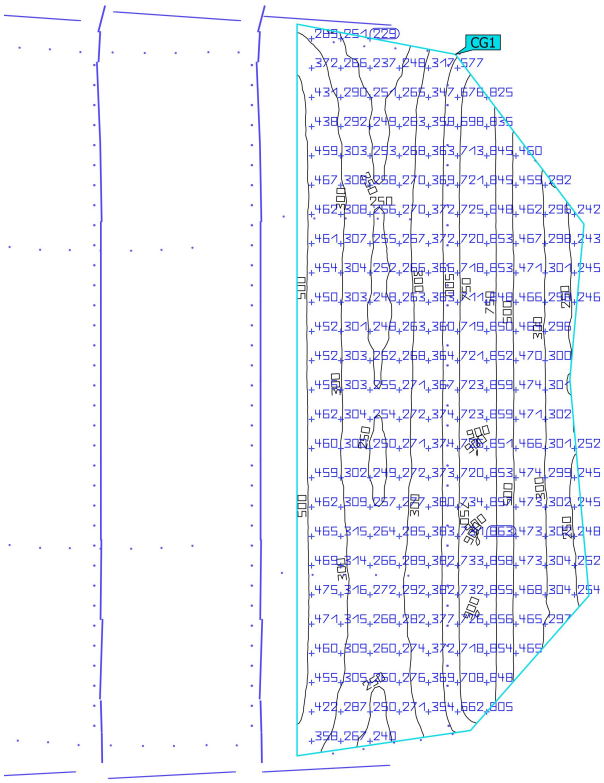


Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Circolazione Platea 3 Illuminamento perpendicolare (adattivo) Altezza: 2.765 m	113 lx	30.2 lx	403 lx	0.27	0.075	CG10

Sala Principale (Scena luce 1)

Superficie di calcolo 1 - settore platea vicino al palco

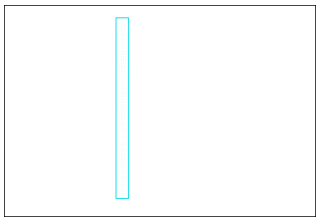


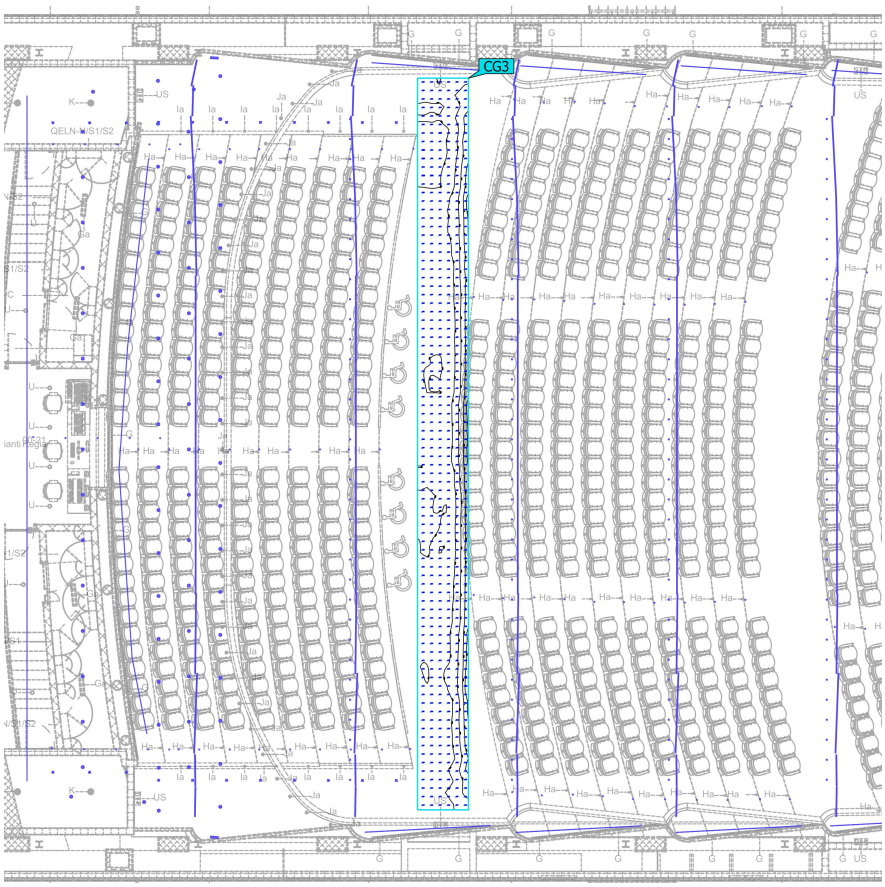


Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie di calcolo 1 - settore platea vicino al palco Illuminamento perpendicolare (adattivo) Altezza: 1.816 m	431 lx	208 lx	901 lx	0.48	0.23	CG1

Edificio 1 · Piano · Sala Principale (Scena luce 1)

Circolazione Platea 2

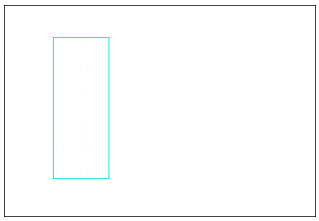


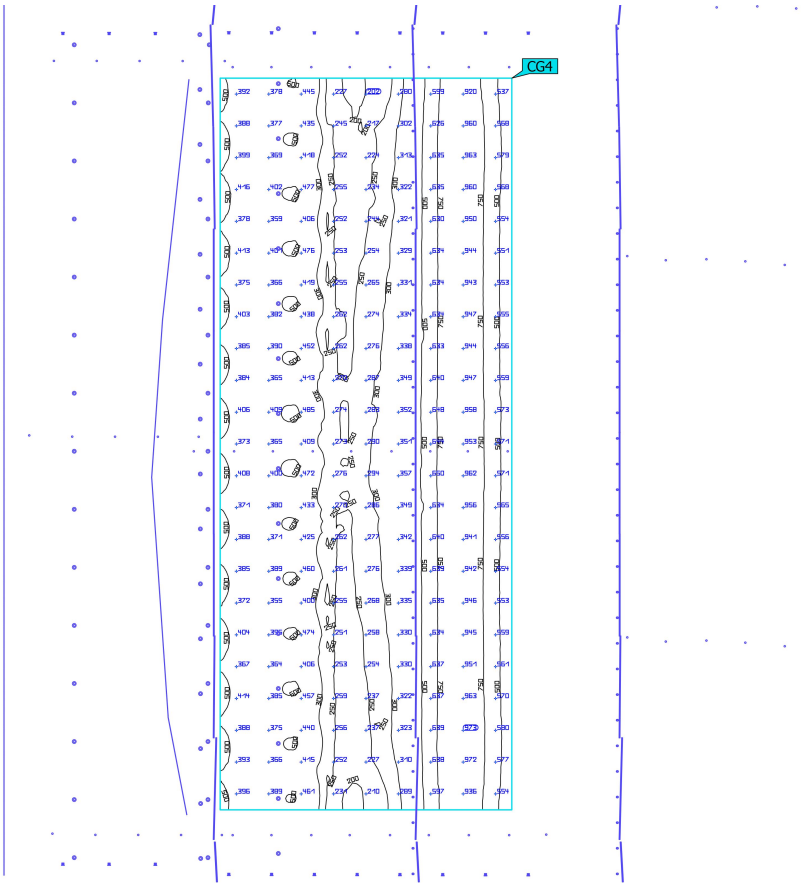


Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Circolazione Platea 2 Illuminamento perpendicolare (adattivo) Altezza: 4.000 m	272 lx	243 lx	345 lx	0.89	0.70	CG3

Edificio 1 · Piano · Sala Principale (Scena luce 1)

Superficie di calcolo 4 - Platea

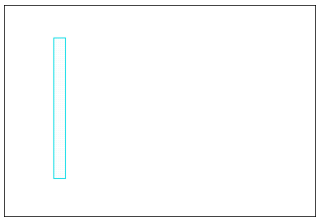


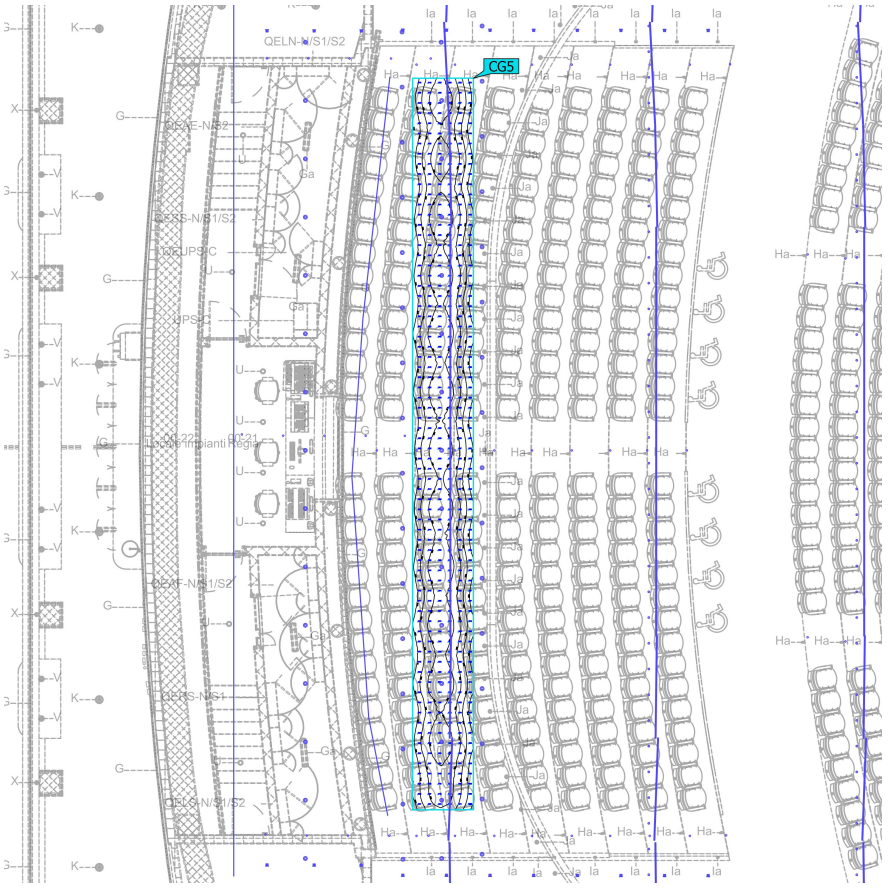


Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie di calcolo 4 - Platea Illuminamento perpendicolare (adattivo) Altezza: 4.793 m	467 lx	186 lx	981 lx	0.40	0.19	CG4

Edificio 1 · Piano · Sala Principale (Scena luce 1)

Superficie di calcolo 5 - P1 - Area di circolazione

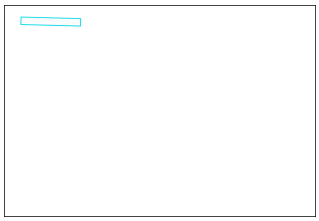


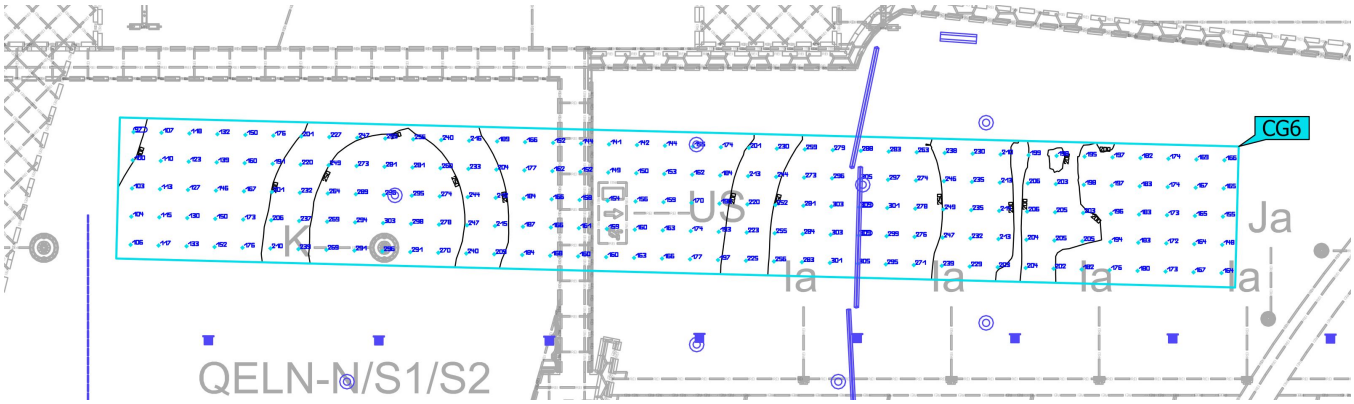


Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie di calcolo 5 - P1 - Area di circolazione Illuminamento perpendicolare (adattivo) Altezza: 8.712 m	302 lx	220 lx	347 lx	0.73	0.63	CG5

Sala Principale (Scena luce 1)

Superficie di calcolo - Ingresso balconata

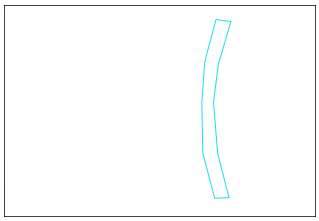


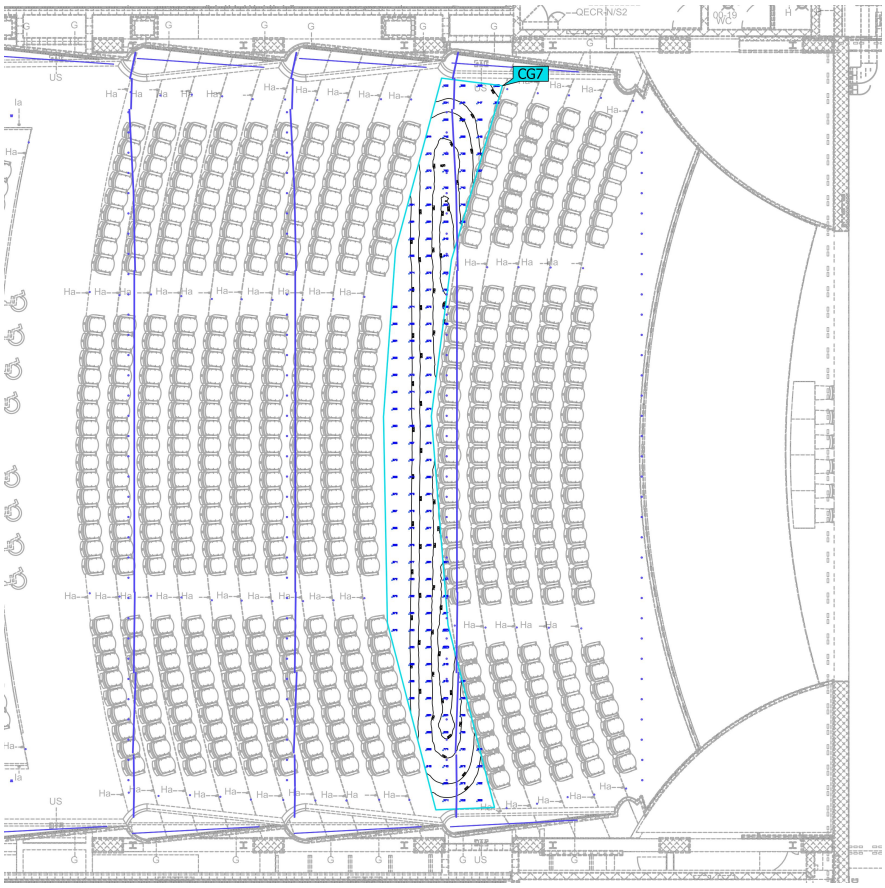


Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie di calcolo - Ingresso balconata Illuminamento perpendicolare (adattivo) Altezza: 8.300 m	207 lx	93.6 lx	311 lx	0.45	0.30	CG6

Edificio 1 · Piano · Sala Principale (Scena luce 1)

Circolazione Platea 1

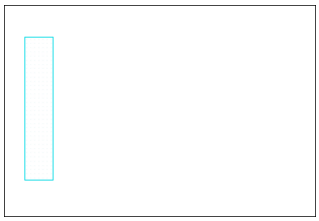


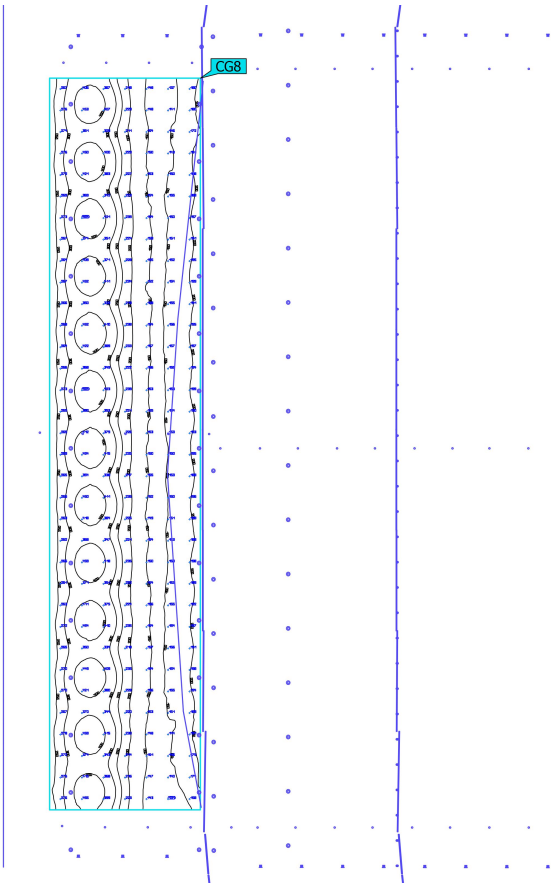


Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Circolazione Platea 1 Illuminamento perpendicolare (adattivo) Altezza: 2.300 m	594 lx	284 lx	827 lx	0.48	0.34	CG7

Sala Principale (Scena luce 1)

Superficie di calcolo - Balconata posti a sedere

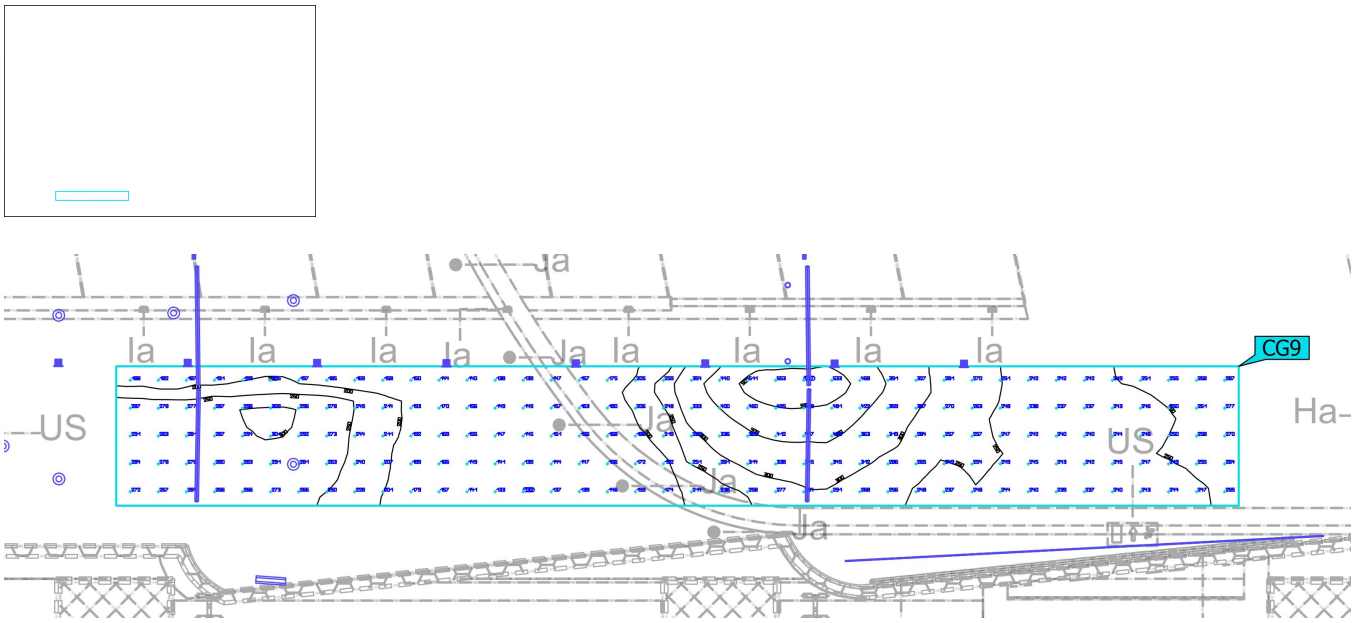




Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie di calcolo - Balconata posti a sedere Illuminamento perpendicolare (adattivo) Altezza: 9.307 m	254 lx	125 lx	497 lx	0.49	0.25	CG8

Edificio 1 · Piano · Sala Principale (Scena luce 1)

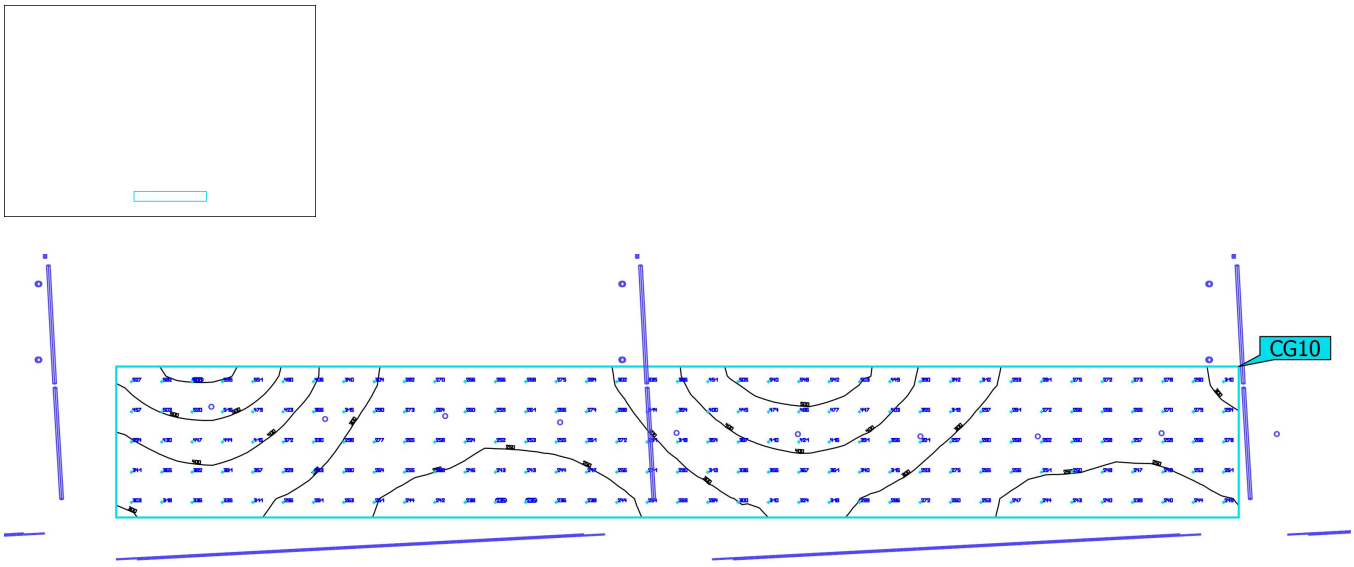
Circolazione Platea 4



Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Circolazione Platea 4 Illuminamento perpendicolare (adattivo) Altezza: 4.000 m	254 lx	130 lx	563 lx	0.51	0.23	CG9

Sala Principale (Scena luce 1)

Circolazione Platea 3



Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Circolazione Platea 3 Illuminamento perpendicolare (adattivo) Altezza: 2.765 m	323 lx	235 lx	620 lx	0.73	0.38	CG10

Atrio di ingresso

Created with DIALux

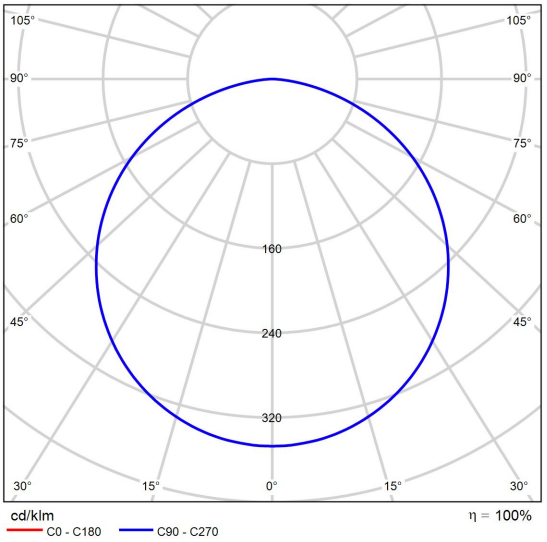
DIALux

Scheda tecnica prodotto

BEGA - 34022K3

BEGA

P	76.0 W
$\Phi_{Lampadina}$	6151 lm
$\Phi_{Lampada}$	6152 lm
η	100.01 %
Efficienza	80.9 lm/W
CCT	3000 K
CRI	100



CDL polare

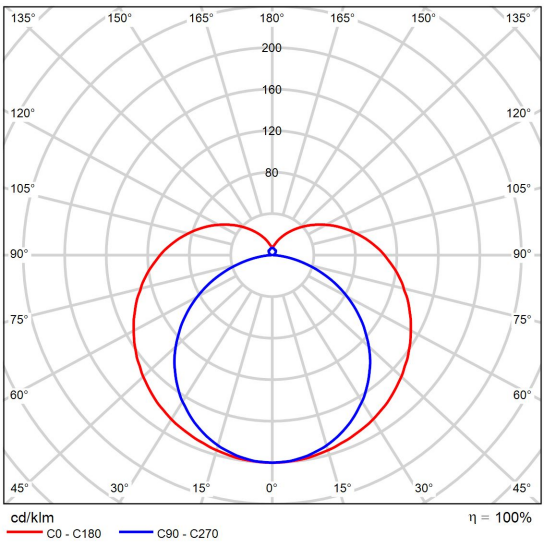
DIALux

Scheda tecnica prodotto

BEGA - 50218K3

BEGA

P	60.0 W
$\Phi_{Lampadina}$	6700 lm
$\Phi_{Lampada}$	6700 lm
η	100.00 %
Efficienza	111.7 lm/W
CCT	3000 K
CRI	90



CDL polare

DIALux

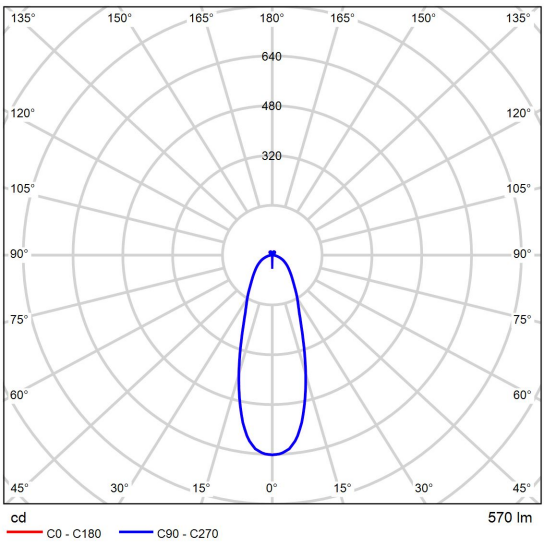
Scheda tecnica prodotto

BEGA - Apparecchio da incasso a soffitto a LED

BEGA

Articolo No.	50593K3
P	10.0 W
$P_{Illuminazione\ di\ emergenza}$	10.0 W
$\Phi_{Lampadina}$	–
$\Phi_{Lampada}$	570 lm
$\Phi_{Illuminazione\ di\ emergenza}$	570 lm
η	–
Efficienza	57.0 lm/W
CCT	3000 K
CRI	90
ELF	100 %

BEGA ACCENTA VARIO Recessed ceiling luminaire 50593K3 for interior applications. Adjustable in steps of 10°, 22,5° or 35°. LED, 10.5 W Luminaire connected wattage, Luminaire luminous flux 570 lm, colour temperature 3000 K. Colour rendering index (CRI) > 90. With replaceable BEGA LED module with overheating protection and an expected service life of at least 50,000 operating hours. 20 years warranty of availability of LED module and wear parts. With LED power supply unit, DALI controllable, 220-240 V, 0/50-60 Hz. Safety class II. Luminaire housing made of cast aluminium. Crystal glass, partially frosted inside. Reflector made of pure anodised aluminium. Trim ring Colour white. Luminaire for installation in a recessed opening dia. 68 mm and an installation depth of 60 mm from top edge of the suspended ceiling. Material thickness of the suspended ceiling of 3-20 mm. Luminaire diameter 80 mm, height 48 mm.



CDL polare

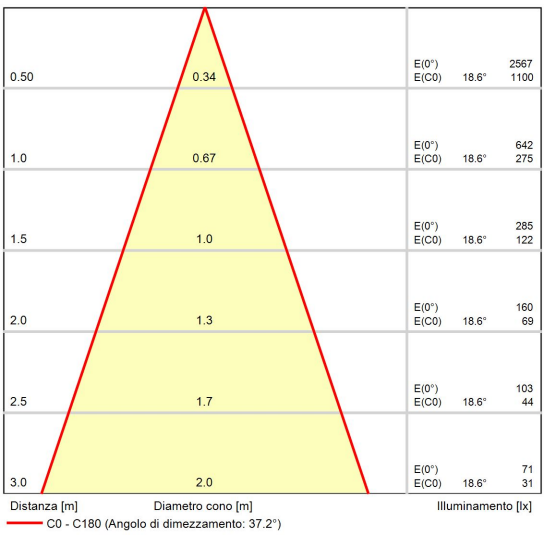


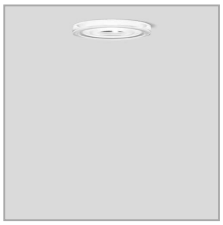
Diagramma conico

DIALux

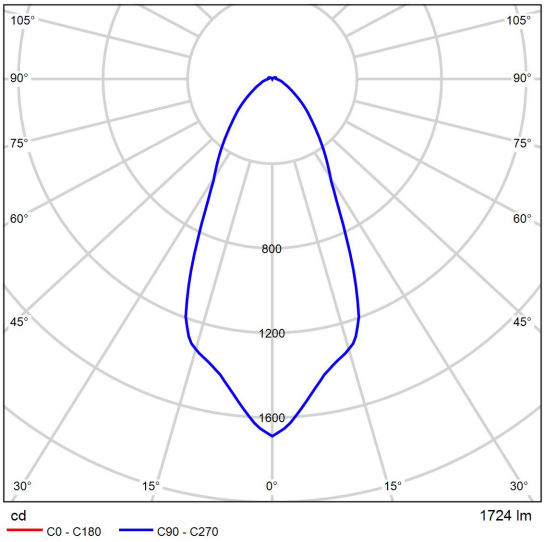
Scheda tecnica prodotto

BEGA - Apparecchio da incasso a soffitto a LED

BEGA



Articolo No.	50689K3
P	20.0 W
$\Phi_{Lampadina}$	–
$\Phi_{Lampada}$	1724 lm
η	–
Efficienza	86.2 lm/W
CCT	3000 K
CRI	90



CDL polare

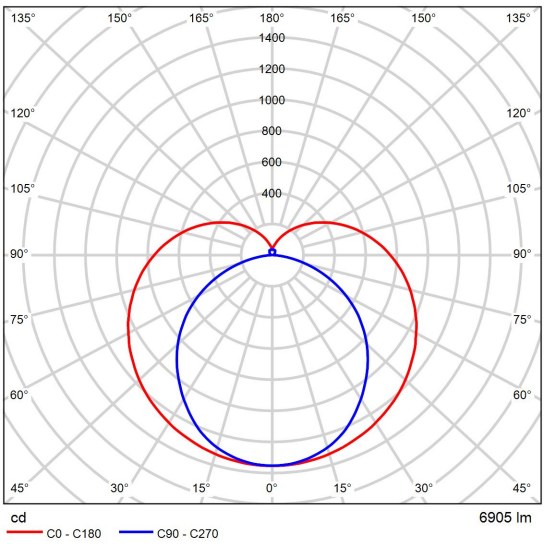
BEGA Spot da incasso a soffitto 50689K3 per interni. LED, 20 W potenza luminoso apparecchi, flusso luminoso apparecchi 1724 lm, angolo semivalente 48°, temperatura di colore 3000 K. Indice di resa del colore (CRI) > 90. Con modulo LED BEGA sostituibile con protezione dalle alte temperature e durata prevista di almeno 50.000 ore di esercizio. 20 anni di garanzia di disponibilità dei pezzi di ricambio su modulo LED e parti usurabili. Senza alimentatore. Isolamento III. Armatura in plastica (poliammide), rinforzata in fibre di vetro, con 2 morsetti di fissaggio. Armatura lampada in fusione di alluminio. Lente di diffusione in silicone. Vetro trasparente, interno parziale satinatura. Riflettore in alluminio puro anodizzato. Cavo di allacciamento con scarico della trazione e sistema di connessione elettrico per BEGA alimentatori, on/off o DALI. Apparecchio per l'installazione in fori d'incasso con misure Ø 188 x 125 mm. Per montaggio in controsoffitti con spessore materiale di 8-25 mm. Misure Ø 205 x 130 mm.

DIALux

Scheda tecnica prodotto

BEGA - Applique

Articolo No.	50217.1K3
P	61.0 W
$\Phi_{Lampadina}$	–
$\Phi_{Lampada}$	6905 lm
η	–
Efficienza	113.2 lm/W
CCT	3000 K
CRI	80



CDL polare

BEGA Ceiling and wall luminaire 50217.1K3 for interior applications. Unshielded light. LED, 61 W Luminaire connected wattage, Luminaire luminous flux 6905 lm, colour temperature 3000 K. Colour rendering index (CRI) > 90. With replaceable BEGA LED module with overheating protection and an expected service life of at least 50,000 operating hours. 20 years warranty of availability of LED module and wear parts. With LED power supply unit, DALI controllable, 220-240 V, 0/50-60 Hz. Luminaire housing made of aluminium. Finish colour white. Light-diffusing synthetic luminaire cover made of synthetic. Dimensions: 1510 x 85 x 70 mm.

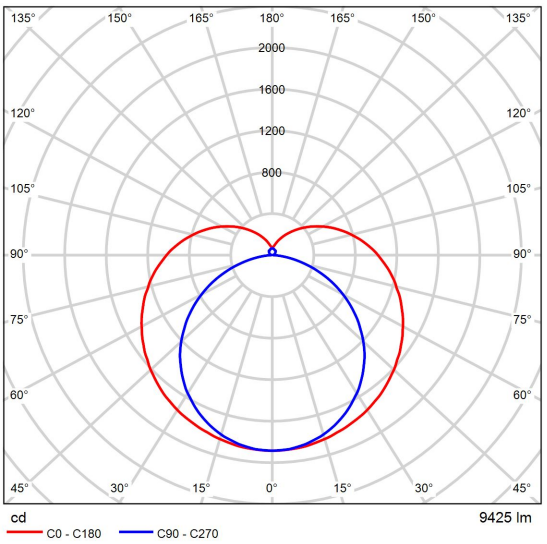
DIALux

Scheda tecnica prodotto

BEGA - Applique

BEGA

Articolo No.	50218.1K3
P	80.0 W
$\Phi_{Lampadina}$	–
$\Phi_{Lampada}$	9425 lm
η	–
Efficienza	117.8 lm/W
CCT	3000 K
CRI	90



CDL polare

BEGA Ceiling and wall luminaire 50218.1K3 for interior applications. Unshielded light. LED, 80 W Luminaire connected wattage, Luminaire luminous flux 9425 lm, colour temperature 3000 K. Colour rendering index (CRI) > 90. With replaceable BEGA LED module with overheating protection and an expected service life of at least 50,000 operating hours. 20 years warranty of availability of LED module and wear parts. With LED power supply unit, DALI controllable, 220-240 V, 0/50-60 Hz. Luminaire housing made of aluminium. Finish White enamel. Light-diffusing synthetic luminaire cover made of synthetic. Dimensions: 2010 x 85 x 70 mm.

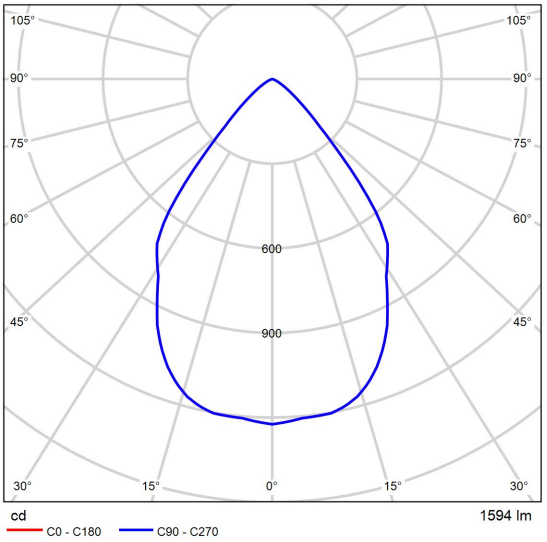
DIALux

Scheda tecnica prodotto

BEGA - Spot da soffitto

BEGA

Articolo No.	50489.1K3
P	13.7 W
$\Phi_{Lampadina}$	–
$\Phi_{Lampada}$	1594 lm
η	–
Efficienza	116.3 lm/W
CCT	3000 K
CRI	80



CDL polare

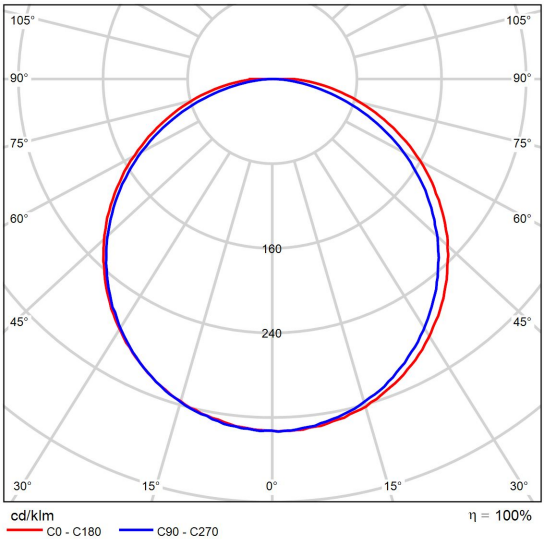
BEGA GENIUS Spot da incasso a soffitto 50489.1K3 per interni. Distribuzione simmetrica a fascio largo della luce. Con BEGA Hybrid Optics® : Distribuzione della luce ad alta efficienza e con poche perdite attraverso il riflettore e la lente ottica. LED, 13,5 W Potenza luminoso apparecchi, Flusso luminoso apparecchi 1593 lm, angolo semivalente 74°, temperatura di colore3000 K. Indice di resa del colore (CRI) > 80. Con modulo LED BEGA sostituibile con protezione dalle alte temperature e durata prevista di almeno 50.000 ore di esercizio. 20 anni di garanzia di disponibilità dei pezzi di ricambio su modulo LED e parti usurabili. Con alimentatore LED, DALI comandabile, 220-240 V, 0/50-60 Hz. Armatura lampada in fusione di alluminio, superficie Colore bianco. Lente ottico in silicone. Superficie riflettore in alluminio puro anodizzato. Vetro di sicurezza. Anello di chiusura con superficie cromo. Misure Ø 120 x 115 mm.

DIALux

Scheda tecnica prodotto

LED Linear - XOOLINE HYDRA HD10 W822 OL-C004 IP67 1255

Articolo No.	W822
P	10.0 W
$\Phi_{Lampadina}$	1200 lm
$\Phi_{Lampada}$	1201 lm
η	100.07 %
Efficienza	120.1 lm/W
CCT	3000 K
CRI	90

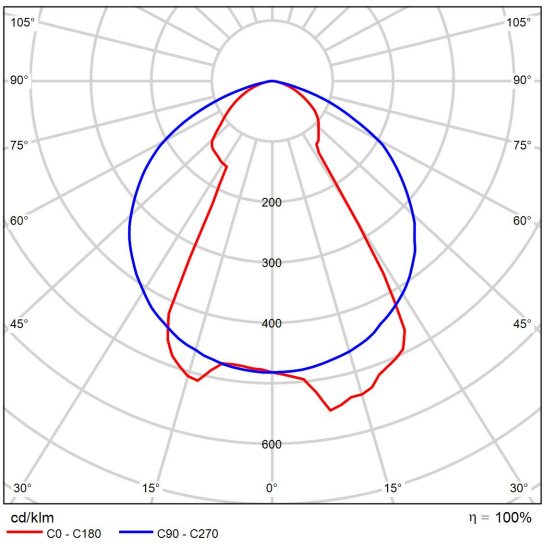


CDL polare

Scheda tecnica prodotto

LINERGY S.r.l. - PRODIGY WALL 1,5H SE IP40 DALI

Articolo No.	PW1616
P	0.2 W
$P_{Illuminazione\ di\ emergenza}$	0.2 W
$\Phi_{Lampadina}$	223 lm
$\Phi_{Lampada}$	223 lm
$\Phi_{Illuminazione\ di\ emergenza}$	223 lm
η	99.91 %
Efficienza	1114.0 lm/W
CCT	6000 K
CRI	80
ELF	100 %



CDL polare

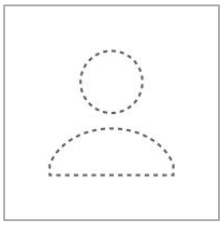
γ	C0°	C90°	C0°- C360°
0°-180°	123.36	107.46	124.60
60°-90°	14.96	47.00	60.60

Tabella valori di abbagliamento [cd]

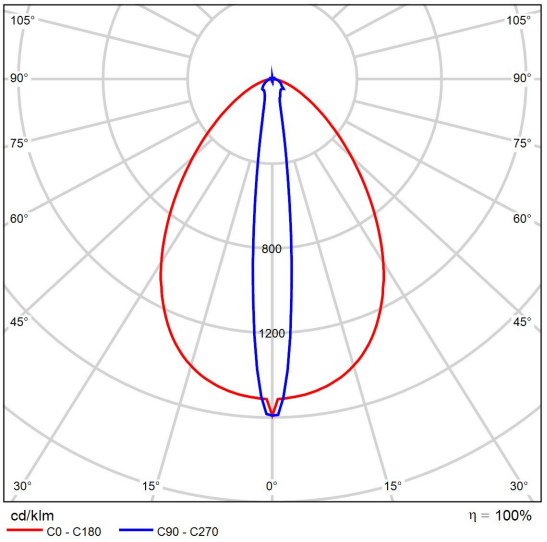
DIALux

Scheda tecnica prodotto

Q-Tran - VERS-04-SW-1.5-30-DRY-GZR-ST



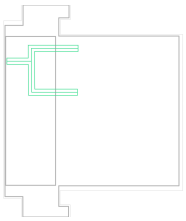
Articolo No.	N/A
P	1.7 W
$\Phi_{Lampadina}$	169 lm
$\Phi_{Lampada}$	169 lm
η	100.00 %
Efficienza	100.6 lm/W
CCT	3000 K
CRI	100

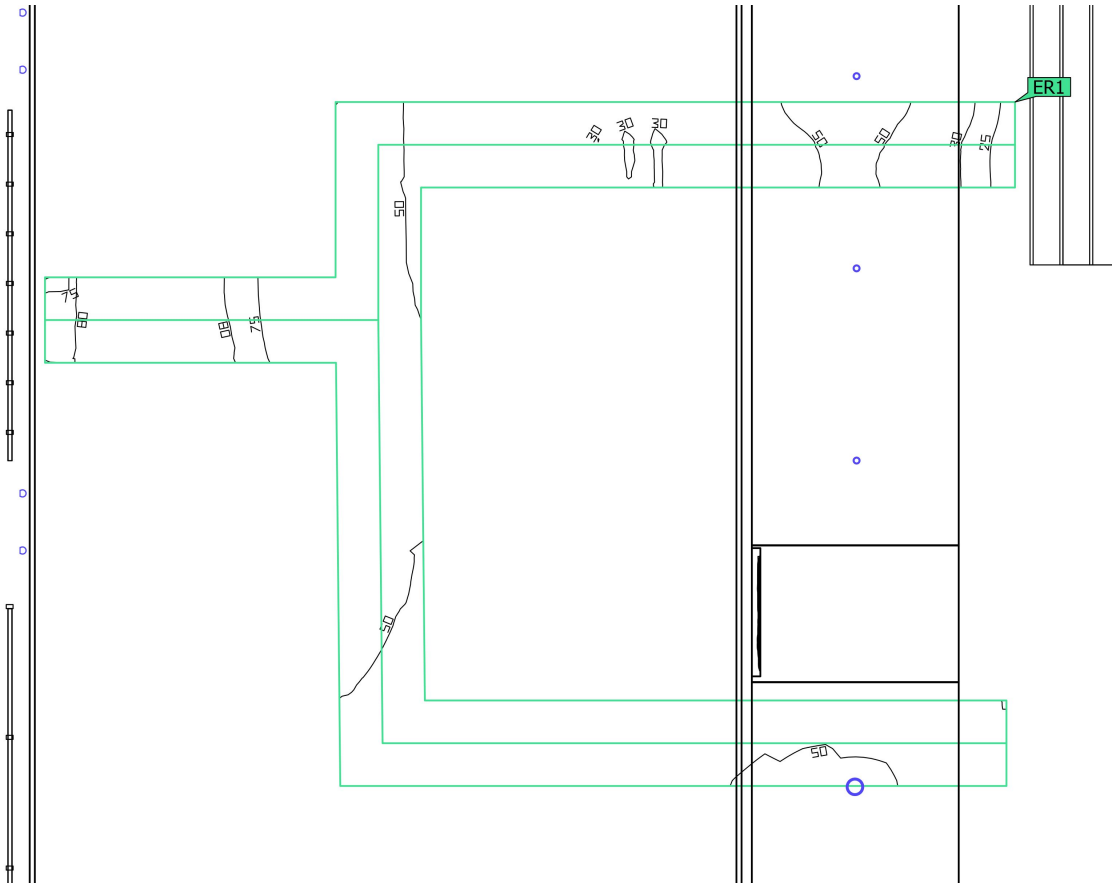


CDL polare

(Scena illuminazione di emergenza)

Via di esodo 2

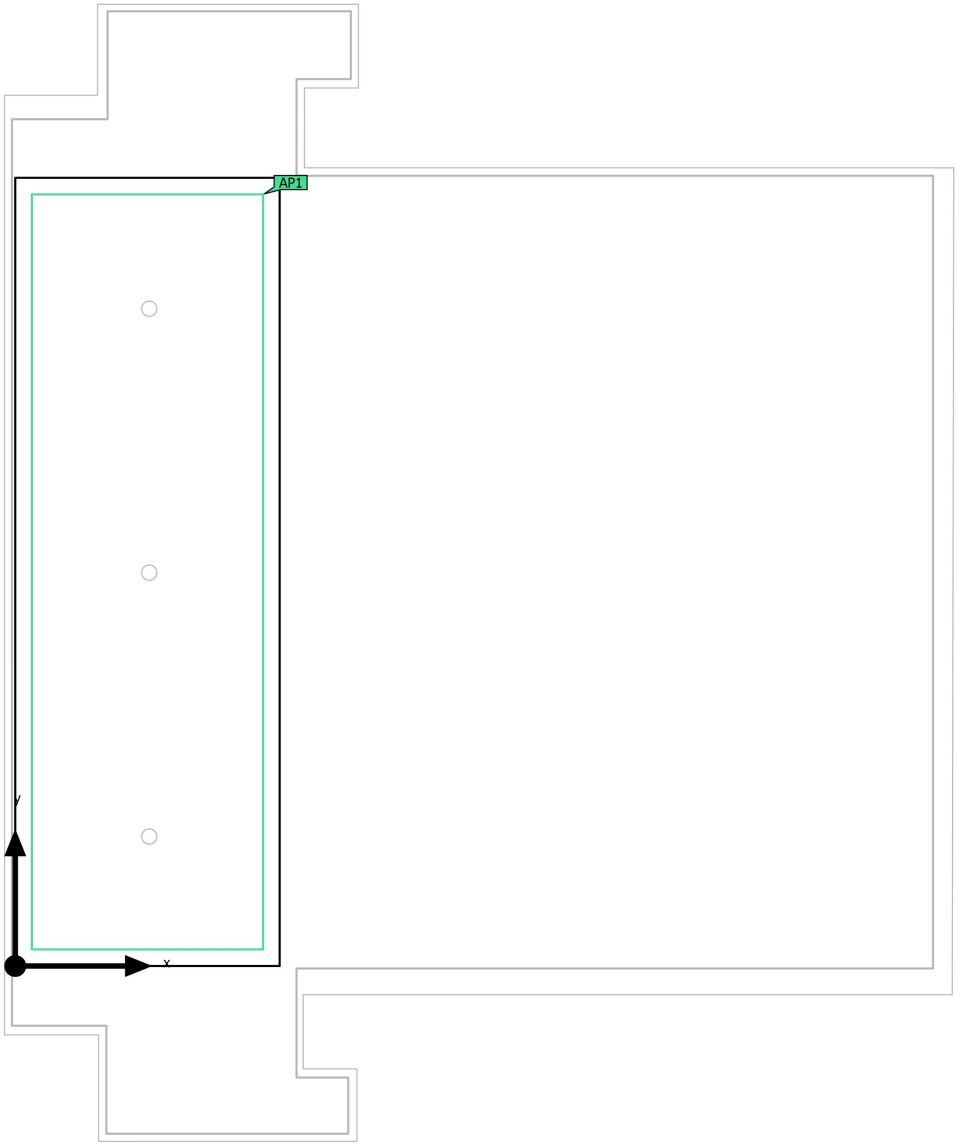




Proprietà	$E_{min.}$ Area centrale	E_{max} Area centrale	$E_{min.}$ Linea mediana	E_{max} Linea mediana	U_d	Indice
Via di esodo 2 Illuminamento perpendicolare (adattivo) Altezza: 0.000 m	22.4 lx	88.1 lx	22.5 lx	86.6 lx	0.26	ER1

(Scena illuminazione di emergenza)

Oggetti di calcolo



(Scena illuminazione di emergenza)

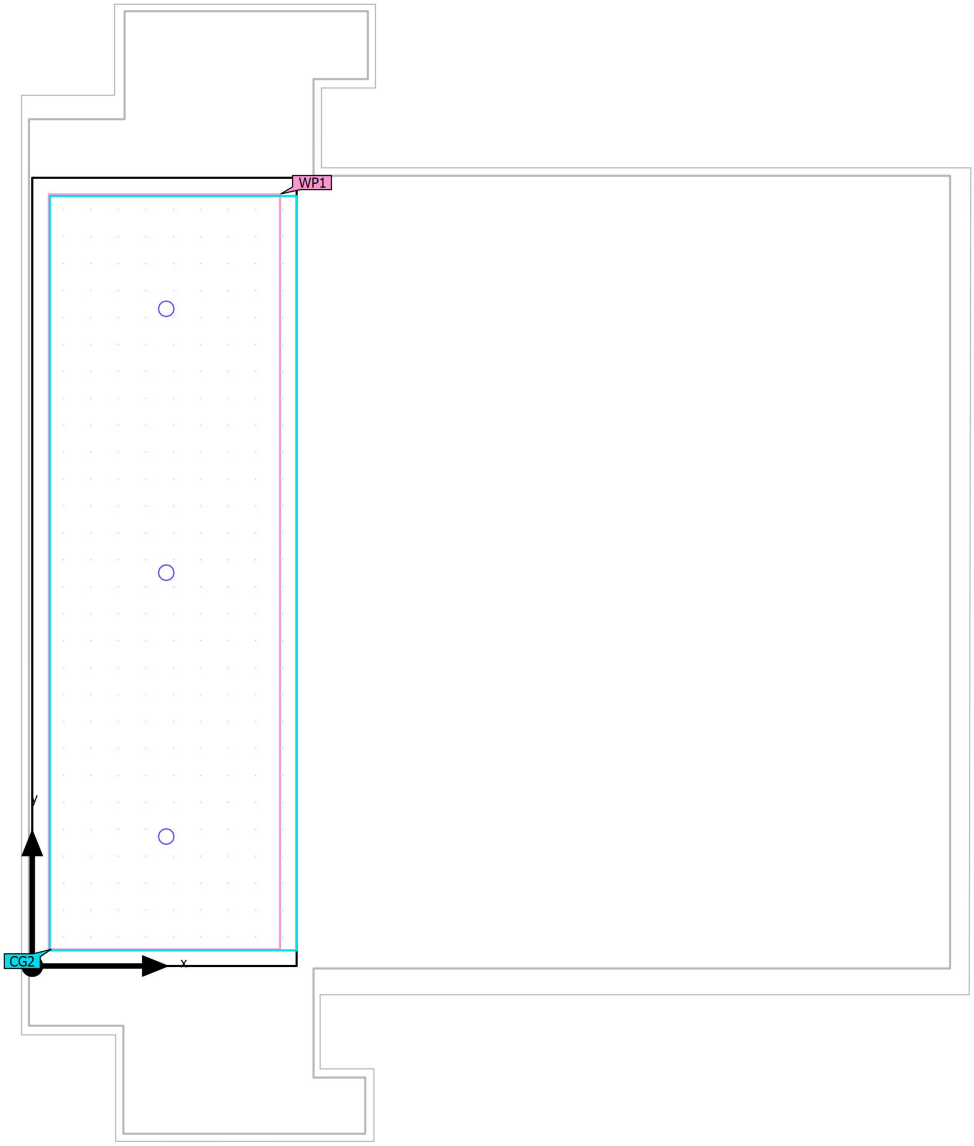
Oggetti di calcolo

Zone antipanico

Proprietà	$E_{min.}$	E_{max}	U_d	Indice
Superficie antipanico (Area 1) Illuminamento perpendicolare (adattivo) Altezza: 0.000 m	29.2 lx	90.9 lx	0.32	AP1

(Scena luce 1)

Oggetti di calcolo



(Scena luce 1)

Oggetti di calcolo

Superfici utili

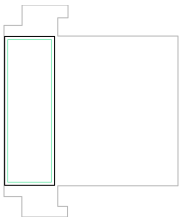
Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie utile (Area 1) Illuminamento perpendicolare Altezza: 1.000 m, Zona margine: 0.500 m	290 lx	209 lx	386 lx	0.72	0.54	WP1

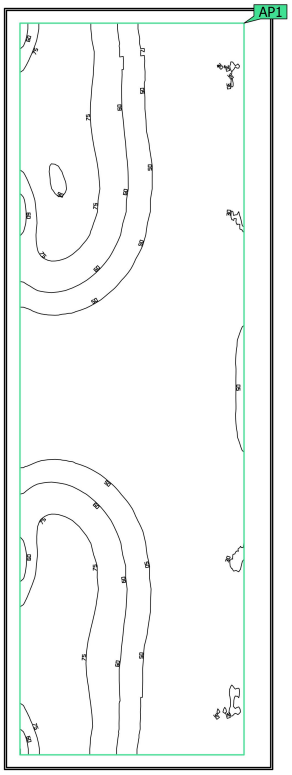
Superfici di calcolo

Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie di calcolo Atrio di ingresso Illuminamento perpendicolare Altezza: 0.000 m	279 lx	216 lx	387 lx	0.77	0.56	CG2

(Scena illuminazione di emergenza)

Superficie antipanico (Area 1)

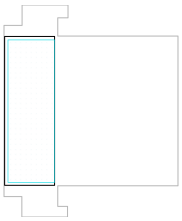


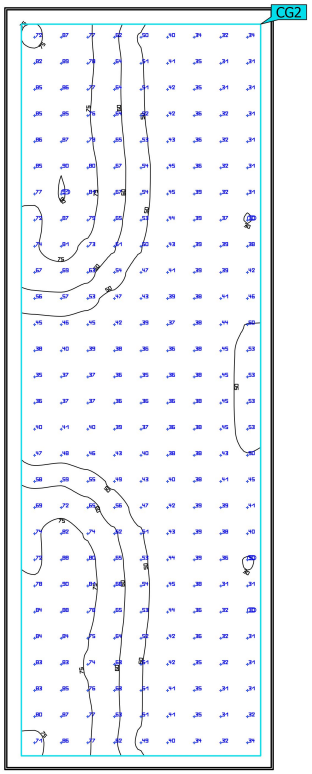


Proprietà	$E_{min.}$	E_{max}	U_d	Indice
Superficie antipanico (Area 1) Illuminamento perpendicolare (adattivo) Altezza: 0.000 m	29.2 lx	90.9 lx	0.32	AP1

(Scena illuminazione di emergenza)

Superficie di calcolo Atrio di ingresso

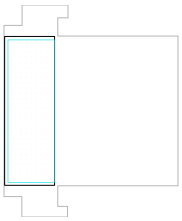


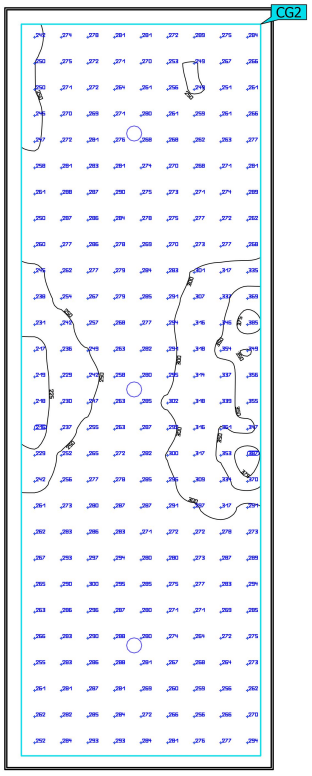


Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie di calcolo Atrio di ingresso Illuminamento perpendicolare Altezza: 0.000 m	51.7 lx	29.5 lx	90.5 lx	0.57	0.33	CG2

(Scena luce 1)

Superficie di calcolo Atrio di ingresso

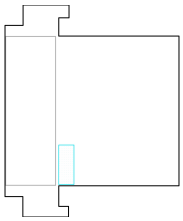


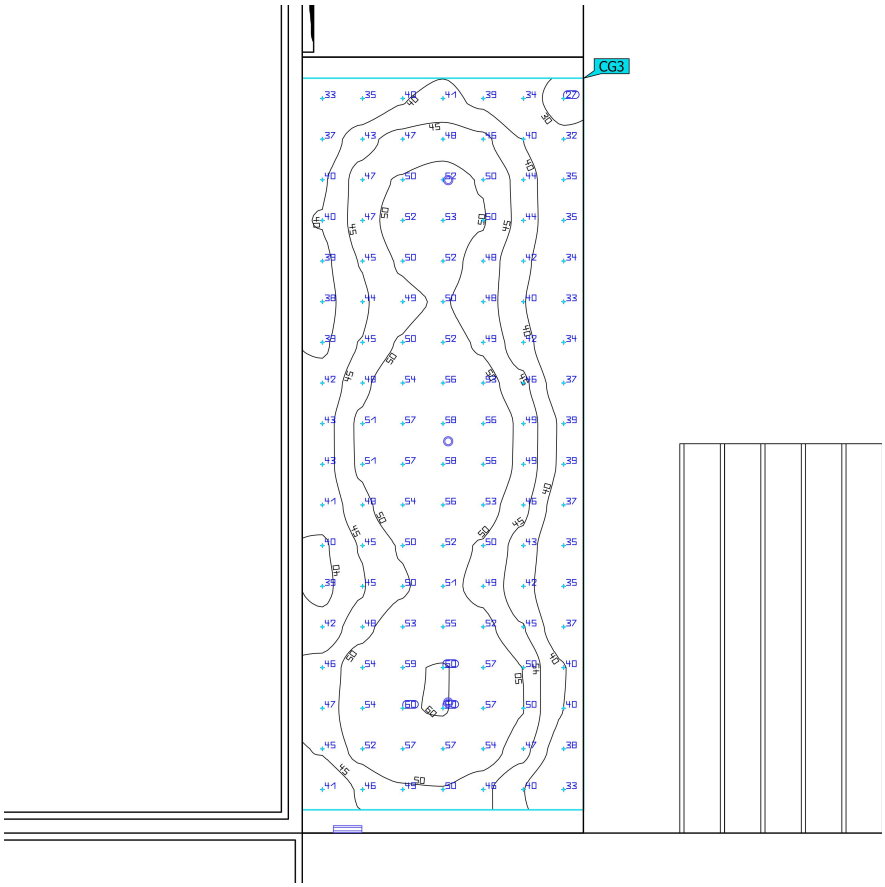


Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie di calcolo Atrio di ingresso Illuminamento perpendicolare Altezza: 0.000 m	279 lx	216 lx	387 lx	0.77	0.56	CG2

(Scena illuminazione di emergenza)

Superficie di calcolo passaggio laterale

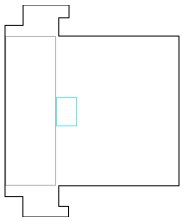


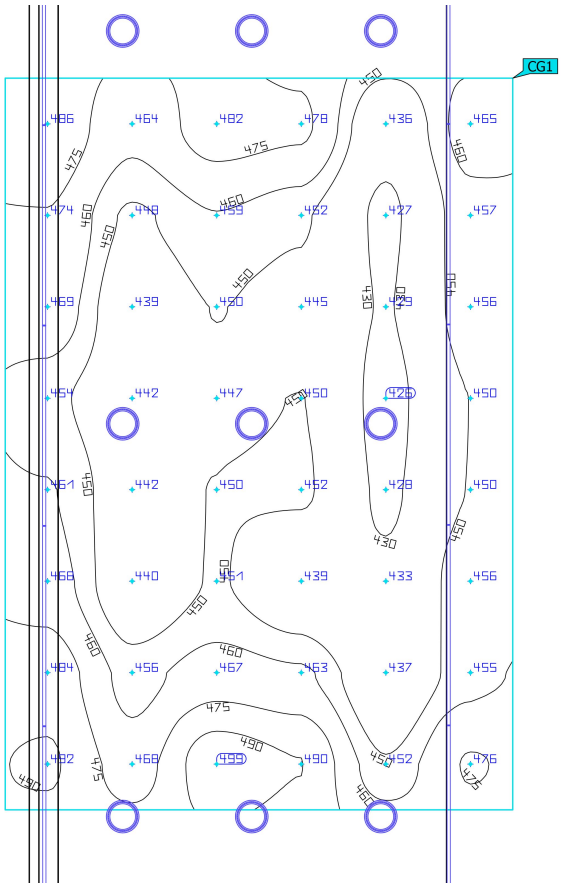


Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie di calcolo passaggio laterale Illuminamento perpendicolare Altezza: 0.000 m	46.3 lx	27.2 lx	60.2 lx	0.59	0.45	CG3

(Scena luce 1)

Desk accettazione

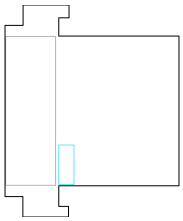


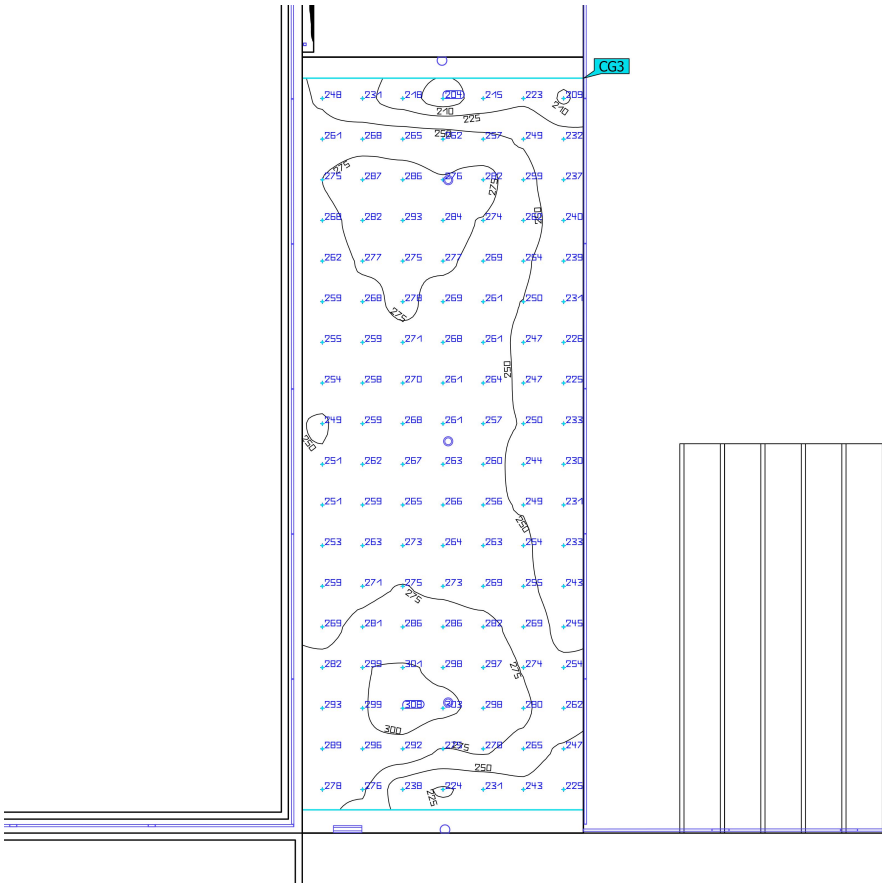


Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Desk accettazione Illuminamento perpendicolare Altezza: 1.100 m	456 lx	426 lx	499 lx	0.93	0.85	CG1

(Scena luce 1)

Superficie di calcolo passaggio laterale

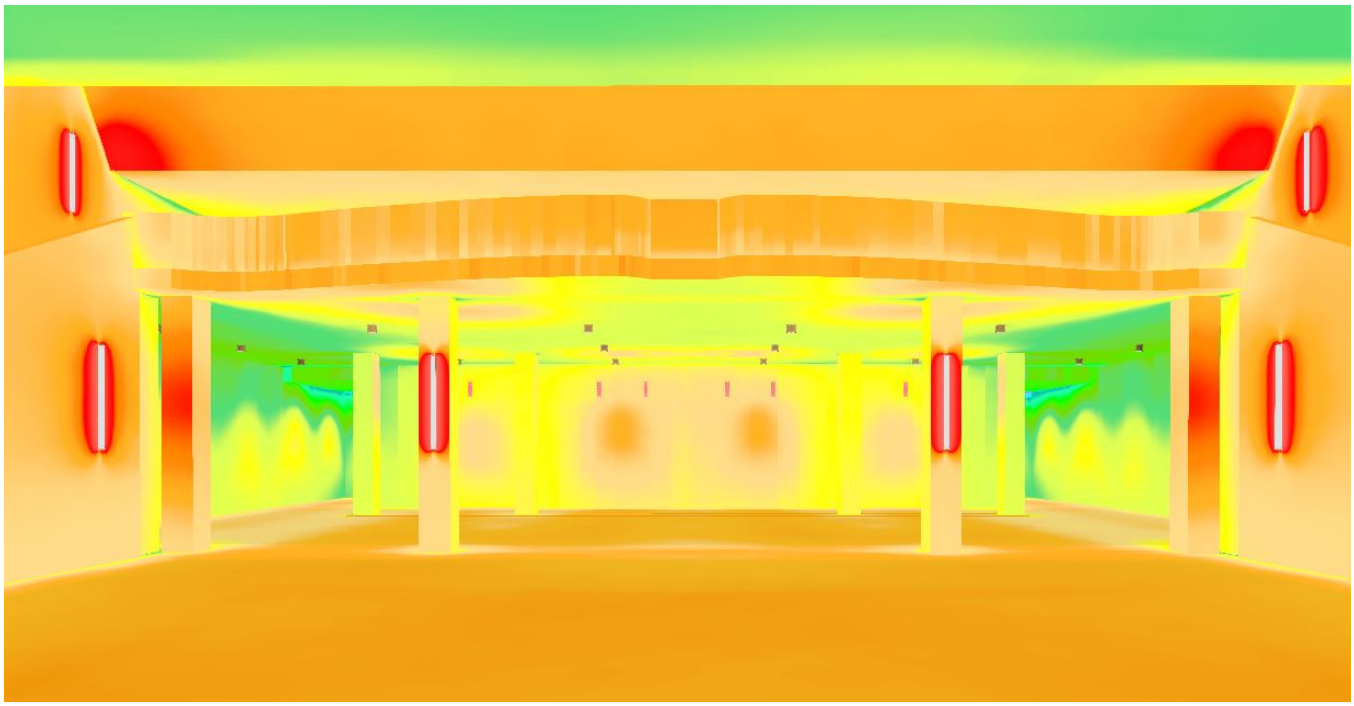




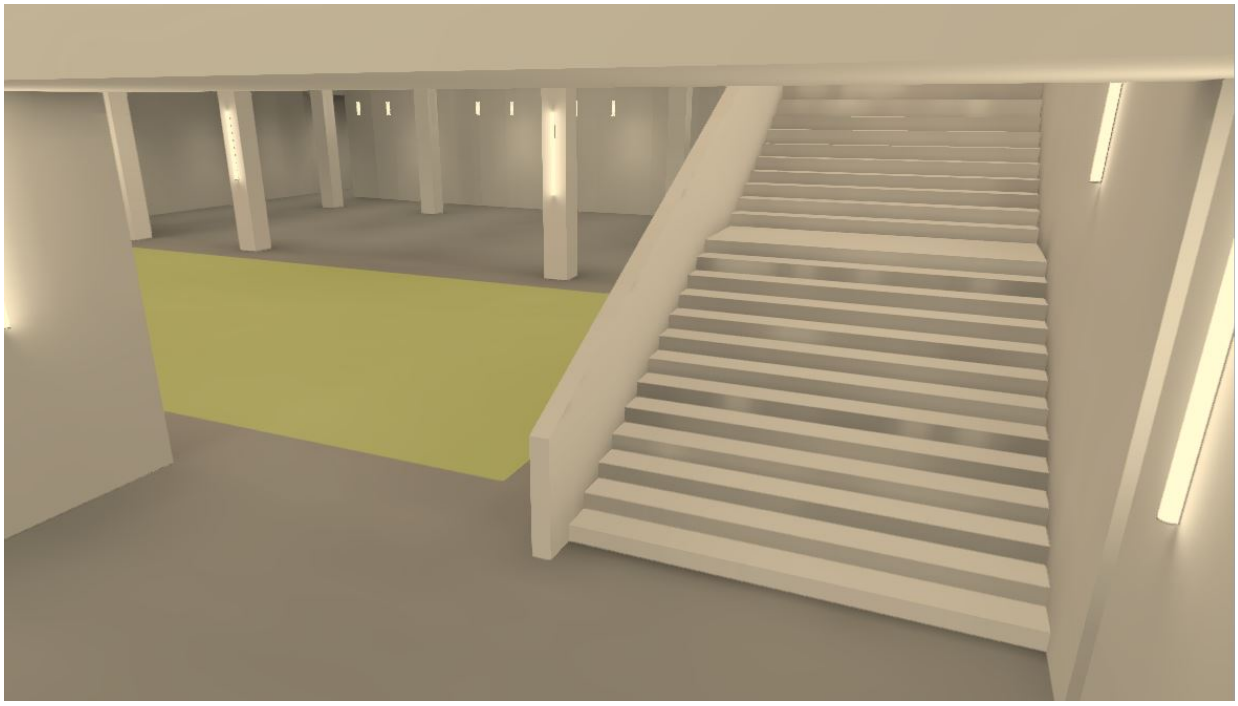
Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie di calcolo passaggio laterale Illuminamento perpendicolare Altezza: 0.000 m	262 lx	204 lx	308 lx	0.78	0.66	CG3

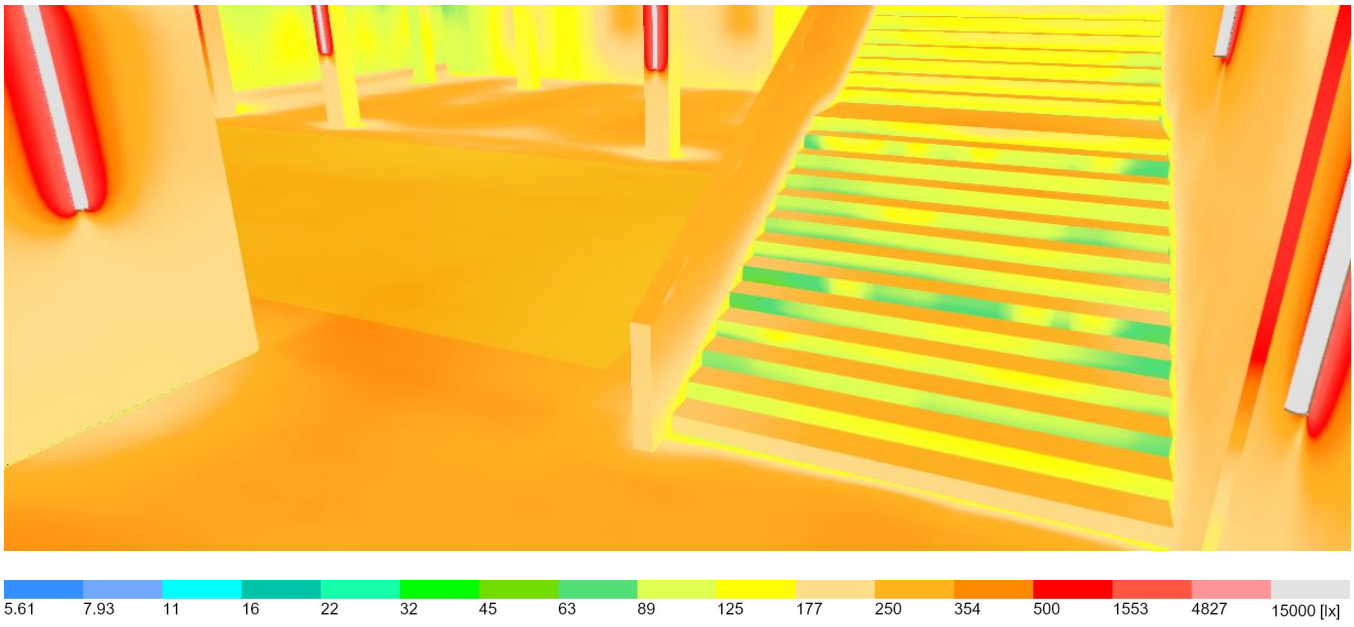
DIALux

Immagini

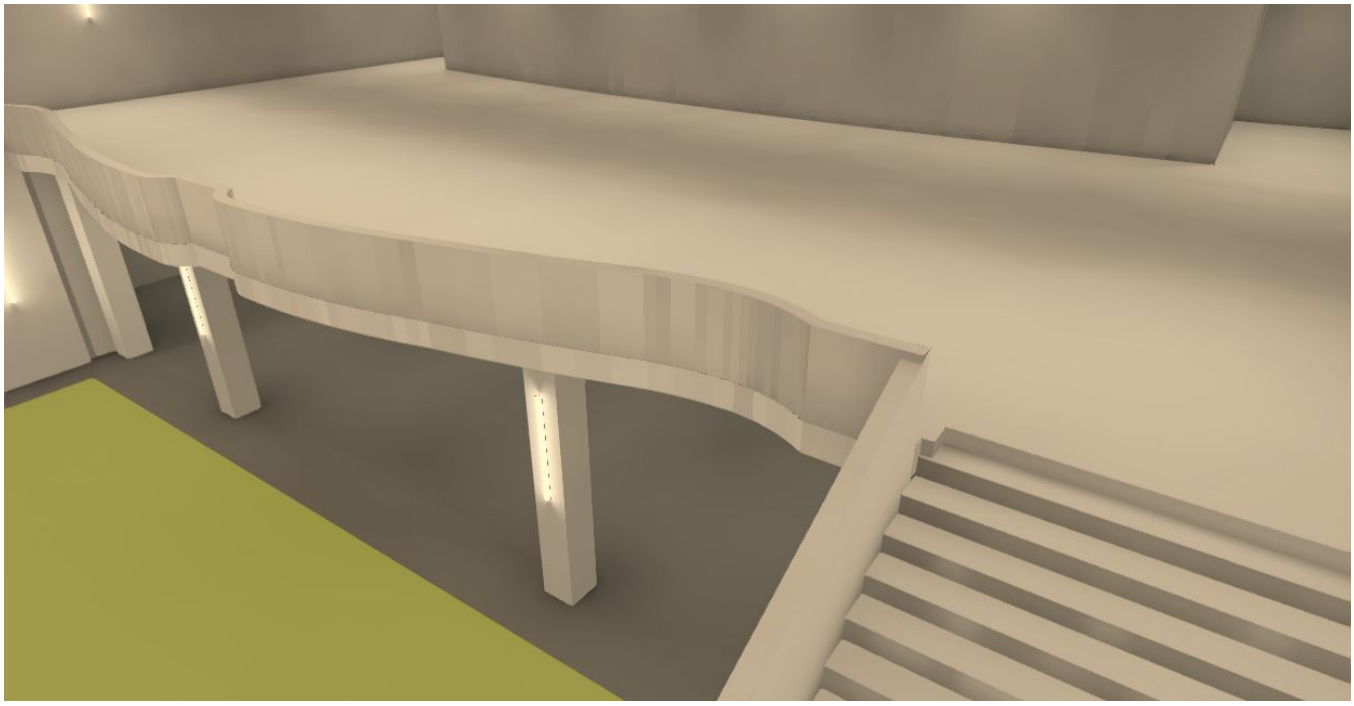


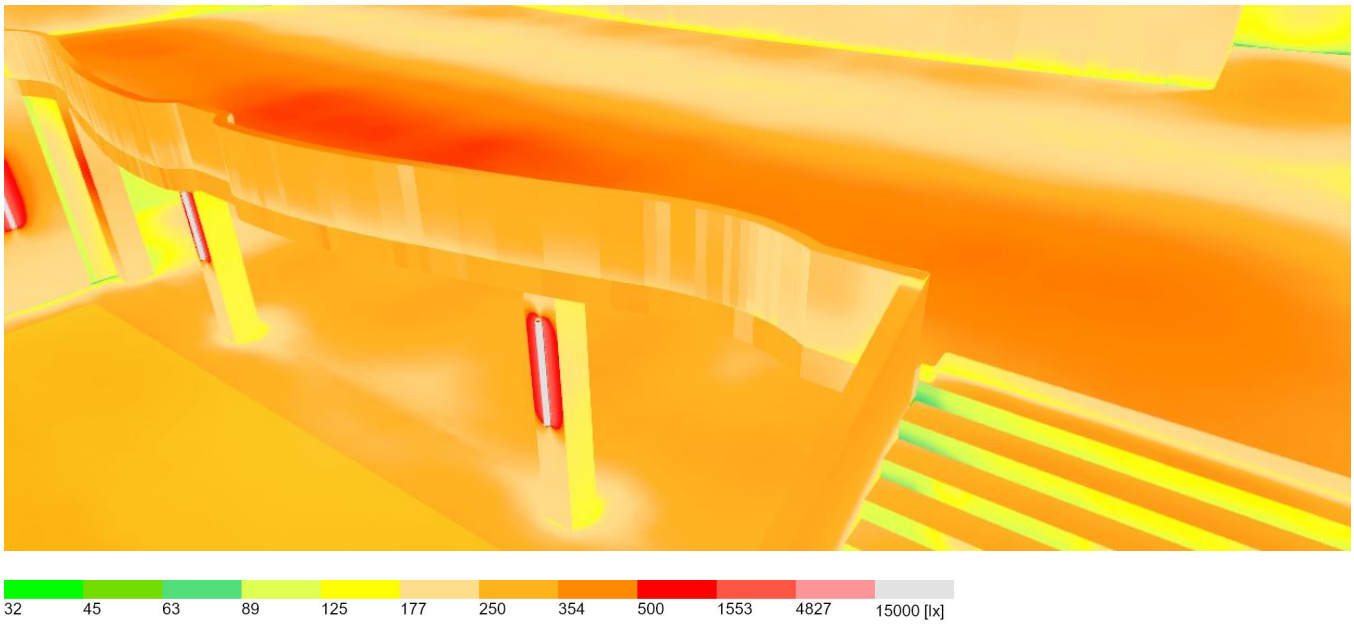
Immagini




5.61
7.93
11
16
22
32
45
63
89
125
177
250
354
500
1553
4827
15000 [lx]

Immagini





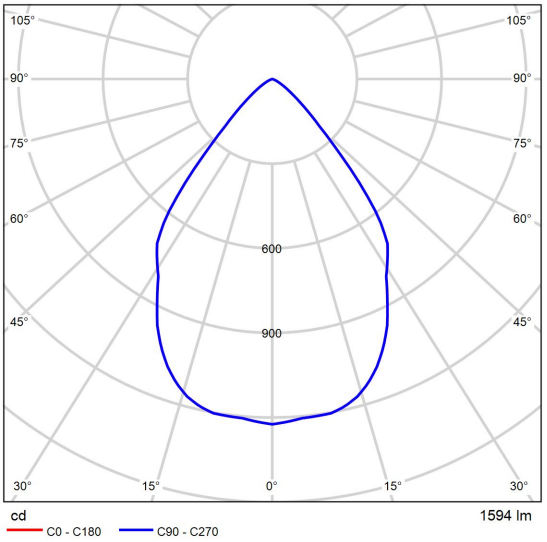
DIALux

Scheda tecnica prodotto

BEGA - LED 13,7 W

BEGA

Articolo No.	50489.1K3
P	13.7 W
$\Phi_{Lampadina}$	–
$\Phi_{Lampada}$	1594 lm
η	–
Efficienza	116.3 lm/W
CCT	3000 K
CRI	80



CDL polare

BEGA GENIUS Deckenleuchte-Tiefstrahler 50489.1K3 für den Innenbereich.
Symmetrisch breitstreuende Lichtstärkeverteilung.
Hocheffiziente und verlustarme Lichtverteilung durch Hybrid-Optik aus Reflektor
und optischer Linse. LED, 13,7 W Leuchten-Anschlussleistung, Leuchten-Lichtstrom 1593 lm, Halbstreuwinkel 62°, Farbtemperatur 3000 K.
Farbwiedergabeindex (CRI) > 80.
Mit austauschbarem BEGA LED-Modul mit Übertemperaturschutz und einer
Lebenserwartung von mindestens 50.000 Betriebsstunden.
20-jährige Nachliefergarantie auf das LED-Modul und die Verschleißteile.
Mit LED-Netzteil, DALI steuerbar, 220-240 V, 0/50-60 Hz. Schutzklasse I.
Leuchtengehäuse aus Aluminiumguss, Oberfläche Einbrennlackierung weiß.
Optische Silikonlinse. Reflektoroberfläche aus eloxiertem Reinstaluminium.
Sicherheitsglas. Abschlussring Oberfläche Chrom. Abmessungen Ø 120 x 115 mm.

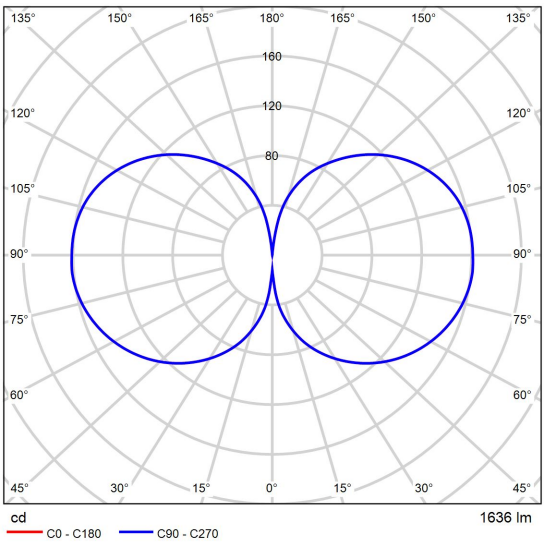
DIALux

Scheda tecnica prodotto

BEGA - LED 18,0W

BEGA

Articolo No.	50409K3
P	18.0 W
$\Phi_{Lampadina}$	–
$\Phi_{Lampada}$	1636 lm
η	–
Efficienza	90.9 lm/W
CCT	3000 K
CRI	90



CDL polare

BEGA Pendelleuchte 50409K3 für den Innenbereich.
Freistrahlendes Licht. LED, 18,0 W Leuchten-Anschlussleistung, Leuchten-Lichtstrom 1636 lm, Farbtemperatur 3000 K. Farbwiedergabeindex (Ra) > 90.
Mit austauschbarem BEGA LED-Modul mit Übertemperaturschutz und einer
Lebenserwartung von mindestens 50.000 Betriebsstunden.
20-jährige Nachliefergarantie auf das LED-Modul und die Verschleißteile.
Mit LED-Netzteil, DALI steuerbar, 220-240 V, 0/50-60 Hz.
Leuchtengehäuse und Baldachin aus Metall. Oberfläche Einbrennlackierung weiß.
Mundgeblasenes Opalglas. Glasverschraubungen aus Edelstahl.
Leitungspendel 2 x 0,5 qmm mit einem Stahlseil, Farbe weiß.
Abmessungen Ø 110 x 400 mm, Gesamtlänge 3000 mm.

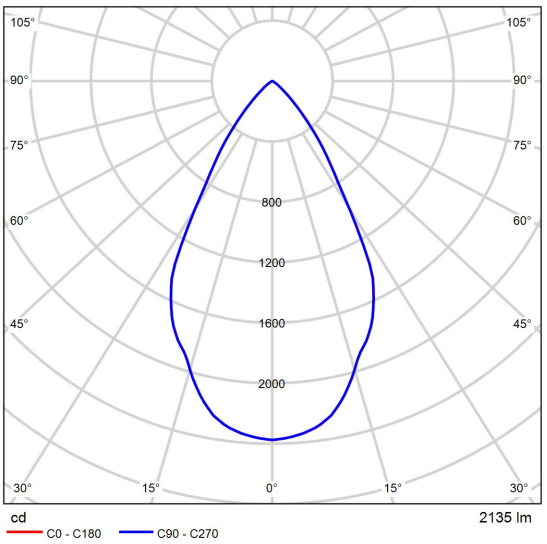
DIALux

Scheda tecnica prodotto

BEGA - LED 19,5W

BEGA

Articolo No.	50479.1K3
P	19.5 W
$P_{Illuminazione\ di\ emergenza}$	19.5 W
$\Phi_{Lampadina}$	–
$\Phi_{Lampada}$	2135 lm
$\Phi_{Illuminazione\ di\ emergenza}$	2135 lm
η	–
Efficienza	109.5 lm/W
CCT	3000 K
CRI	90
ELF	100 %



CDL polare

BEGA GENIUS Deckenleuchte-Tiefstrahler 50479.1K3 für den Innenbereich.
Asymmetrische Lichtstärkeverteilung. Hocheffiziente und verlustarme Lichtverteilung
durch Hybrid-Optik aus Reflektor und optischer Linse.
LED, 19,5 W Leuchten-Anschlussleistung, Leuchten-Lichtstrom 2134 lm,
Halbstreuwinkel 59°, Farbtemperatur 3000 K. Farbwiedergabeindex (CRI) > 90.
Mit austauschbarem BEGA LED-Modul mit Übertemperaturschutz und einer
Lebenserwartung von mindestens 50.000 Betriebsstunden.
20-jährige Nachliefergarantie auf das LED-Modul und die Verschleißteile.
Mit LED-Netzteil, DALI steuerbar, 220-240 V, 0/50-60 Hz. Schutzklasse I.

DIALux

Scheda tecnica prodotto

BEGA - LED 19,5W

Leuchtengehäuse aus Aluminiumguss, Oberfläche Einbrennlackierung weiß.
Optische Silikonlinse. Reflektoroberfläche aus eloxiertem Reinstaluminium.
Sicherheitsglas. Abschlussring Oberfläche Chrom. Abmessungen Ø 180 x 150 mm.

γ	C0°	C90°	C0°- C360°
0°-180°	2375.36	2375.36	2375.36
60°-90°	13.08	13.08	13.08

Tabella valori di abbagliamento [cd]

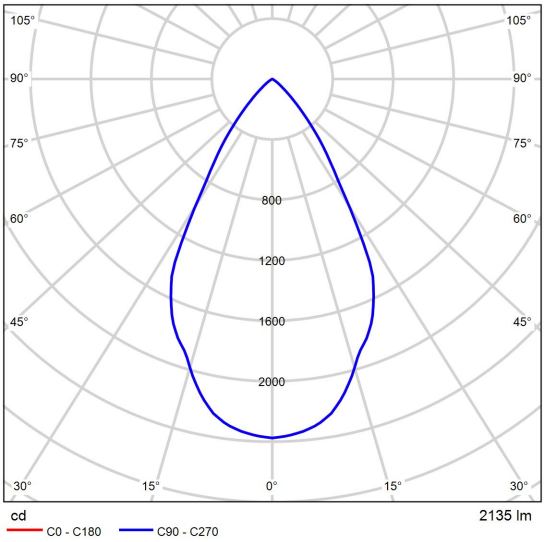
DIALux

Scheda tecnica prodotto

BEGA - LED 19,5W

BEGA

Articolo No.	50479.1K3
P	19.5 W
$\Phi_{Lampadina}$	–
$\Phi_{Lampada}$	2135 lm
η	–
Efficienza	109.5 lm/W
CCT	3000 K
CRI	90



CDL polare

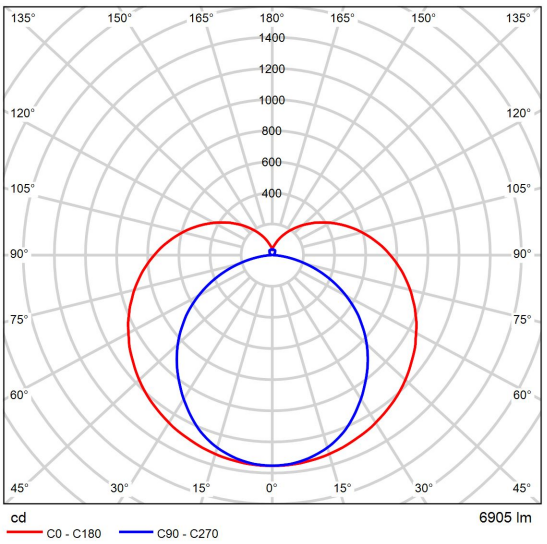
BEGA GENIUS Deckenleuchte-Tiefstrahler 50479.1K3 für den Innenbereich.
Asymmetrische Lichtstärkeverteilung. Hocheffiziente und verlustarme Lichtverteilung
durch Hybrid-Optik aus Reflektor und optischer Linse.
LED, 19,5 W Leuchten-Anschlussleistung, Leuchten-Lichtstrom 2134 lm,
Halbstreuwinkel 59°, Farbtemperatur 3000 K. Farbwiedergabeindex (CRI) > 90.
Mit austauschbarem BEGA LED-Modul mit Übertemperaturschutz und einer
Lebenserwartung von mindestens 50.000 Betriebsstunden.
20-jährige Nachliefergarantie auf das LED-Modul und die Verschleißteile.
Mit LED-Netzteil, DALI steuerbar, 220-240 V, 0/50-60 Hz. Schutzklasse I.
Leuchtengehäuse aus Aluminiumguss, Oberfläche Einbrennlackierung weiß.
Optische Silikonlinse. Reflektoroberfläche aus eloxiertem Reinstaluminium.
Sicherheitsglas. Abschlussring Oberfläche Chrom. Abmessungen Ø 180 x 150 mm.

DIALux

Scheda tecnica prodotto

BEGA - LED 61,0W

Articolo No.	50217.1K3
P	61.0 W
$\Phi_{Lampadina}$	–
$\Phi_{Lampada}$	6905 lm
η	–
Efficienza	113.2 lm/W
CCT	3000 K
CRI	80



CDL polare

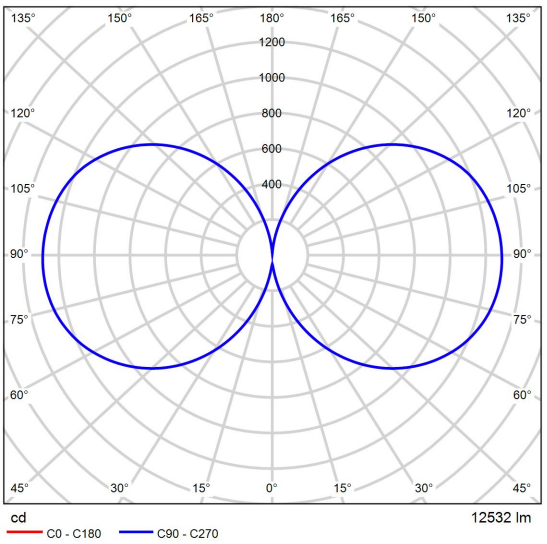
BEGA Decken- und Wandleuchte 50217.1 für den Innenbereich.
Freistrahlendes Licht.
LED, 61 W Leuchten-Anschlussleistung, Leuchten-Lichtstrom 6905 lm,
Farbtemperatur 3000 K. Farbwiedergabeindex (Ra) > 90.
Mit austauschbarem BEGA LED-Modul mit Übertemperaturschutz und einer
Lebenserwartung von mindestens 50.000 Betriebsstunden.
20-jährige Nachliefergarantie auf das LED-Modul und die Verschleißteile.
Mit LED-Netzteil, DALI steuerbar, 220-240 V, 0/50-60 Hz.
Leuchtengehäuse aus Aluminium. Oberfläche Einbrennlackierung weiß.
Lichtstreuende Leuchtenabdeckung aus PMMA.
Abmessungen: 1510 x 85 x 70 mm.

DIALux

Scheda tecnica prodotto

BEGA - LED 127,0W

Articolo No.	50672K3
P	127.0 W
$\Phi_{Lampadina}$	–
$\Phi_{Lampada}$	12532 lm
η	–
Efficienza	98.7 lm/W
CCT	3000 K
CRI	90



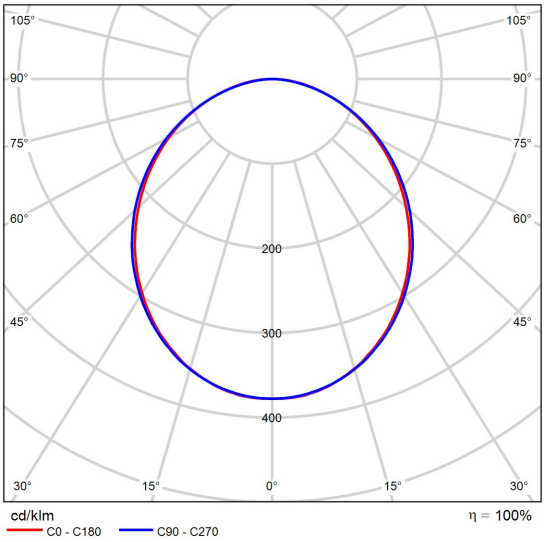
CDL polare

BEGA Pendelleuchte 50672K3 für den Innenbereich. Freistrahlendes Licht.
LED, 127,0 W Leuchten-Anschlussleistung, Leuchten-Lichtstrom 12534 lm,
Farbtemperatur 3000 K. Farbwiedergabeindex (Ra) > 90.
Mit austauschbarem BEGA LED-Modul mit Übertemperaturschutz und einer
Lebenserwartung von mindestens 50.000 Betriebsstunden.
20-jährige Nachliefergarantie auf das LED-Modul und die Verschleißteile.
Mit LED-Netzteil 220-240 V, 0/50-60 Hz.
3 Stahlseilaufhängungen · Anschlussleitung transparent 3 x 0,75 qmm.

Scheda tecnica prodotto

Intra Lighting - Kalis 55 W SOP 6500 lm 72 W 930 L3085 mm DALI IP44 white

Articolo No.	173811G1001
P	71.9 W
$\Phi_{Lampadina}$	6516 lm
$\Phi_{Lampada}$	6516 lm
η	100.00 %
Efficienza	90.7 lm/W
CCT	3000 K
CRI	90

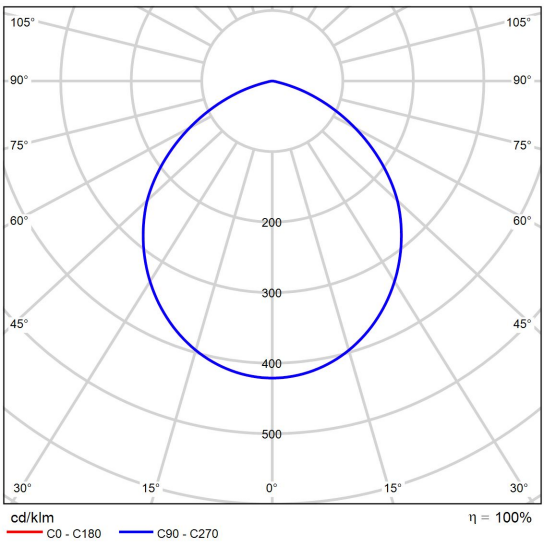


CDL polare

Scheda tecnica prodotto

Intra Lighting - Nitor RV SOP 940-1750 lm 9-18 W 350-700 mA 26 V 940 D154 mm IP44 white/white 500 mA

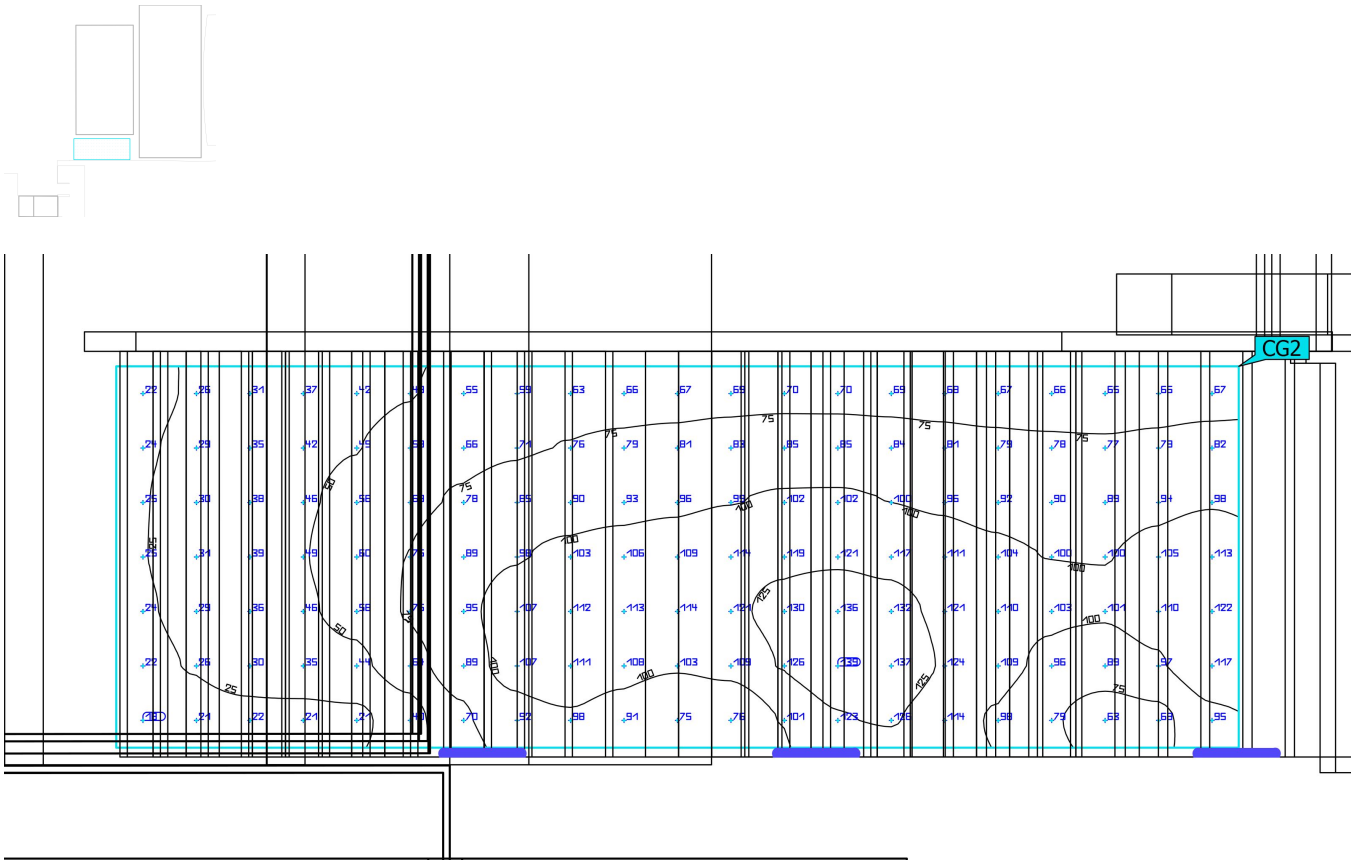
Articolo No.	1481A0342011
P	12.6 W
$\Phi_{Lampadina}$	1296 lm
$\Phi_{Lampada}$	1296 lm
η	99.99 %
Efficienza	103.3 lm/W
CCT	4000 K
CRI	90



CDL polare

(Scena illuminazione di emergenza)

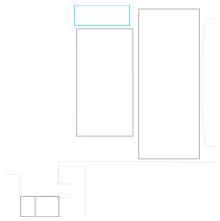
Scalinata S

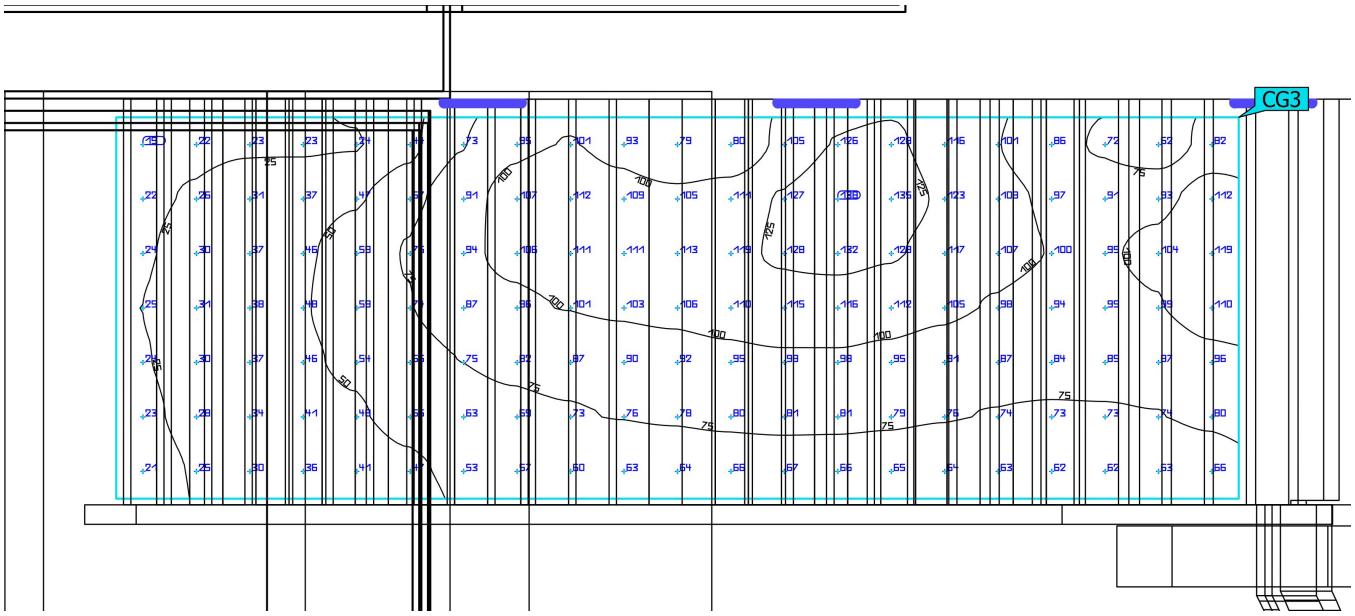


Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Scalinata S Illuminamento perpendicolare Altezza: 2.110 m	78.6 lx	18.5 lx	139 lx	0.24	0.13	CG2

(Scena illuminazione di emergenza)

Scalinata N

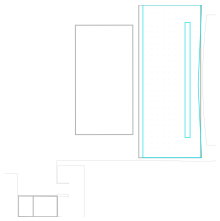


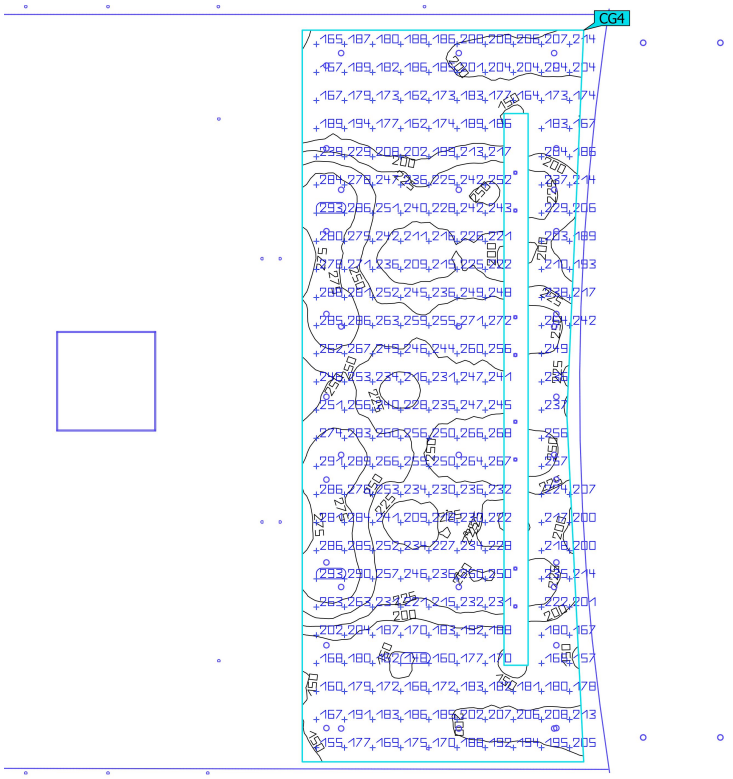


Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Scalinata N Illuminamento perpendicolare Altezza: 2.110 m	77.0 lx	18.8 lx	138 lx	0.24	0.14	CG3

Edificio 1 · Piano 1 (Scena luce 1)

Area sotto balconata - P0

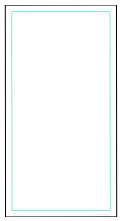


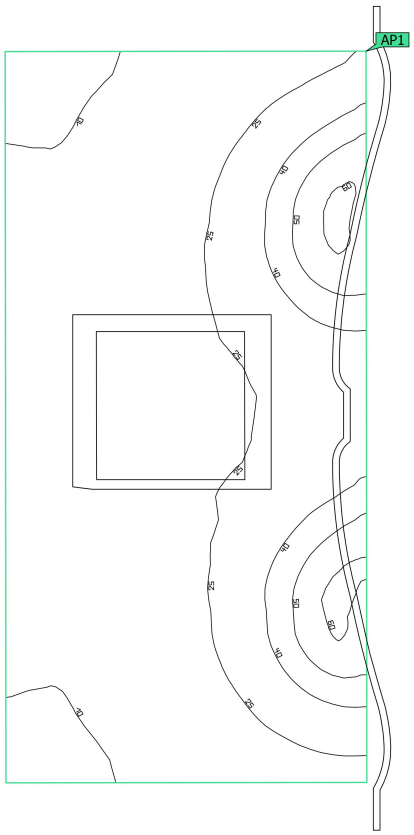


Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Area sotto balconata - P0 Illuminamento perpendicolare (adattivo) Altezza: 0.000 m	221 lx	127 lx	297 lx	0.57	0.43	CG4

(Scena illuminazione di emergenza)

Superficie antipanico (Area 1)

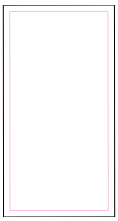


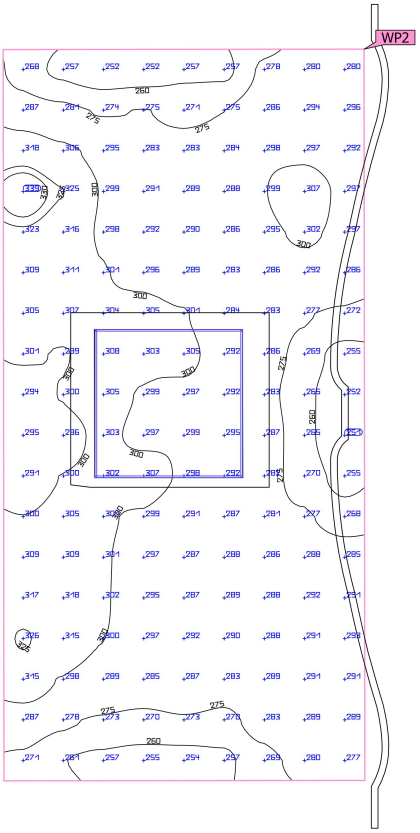


Proprietà	$E_{min.}$	E_{max}	U_d	Indice
Superficie antipanico (Area 1) Illuminamento perpendicolare (adattivo) Altezza: 0.000 m	6.31 lx	62.5 lx	0.10	AP1

(Scena luce 1)

Foyer/Buvette Area

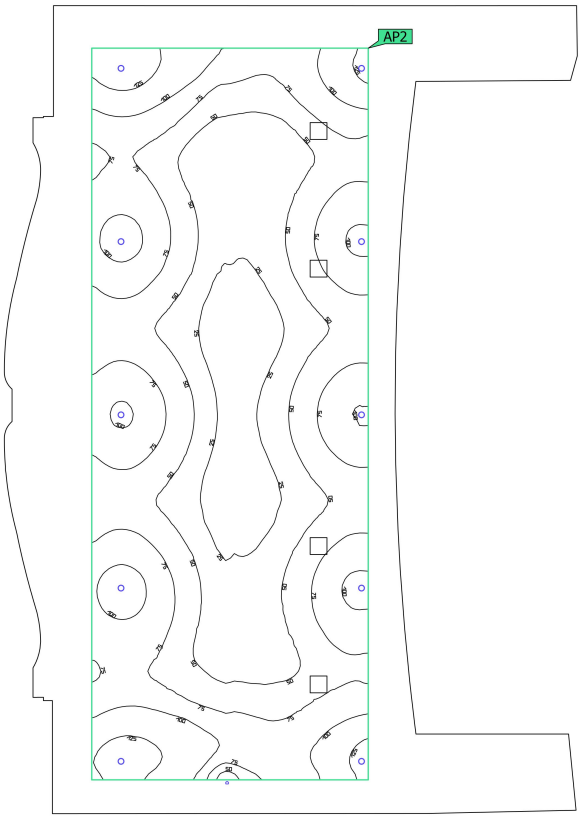




Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Foyer/Buvette Area Illuminamento perpendicolare Altezza: 0.000 m, Zona margine: 0.500 m	289 lx	251 lx	339 lx	0.87	0.74	WP2

(Scena illuminazione di emergenza)

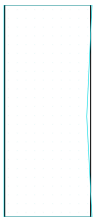
Superficie antipanico (Area balconata - P1)

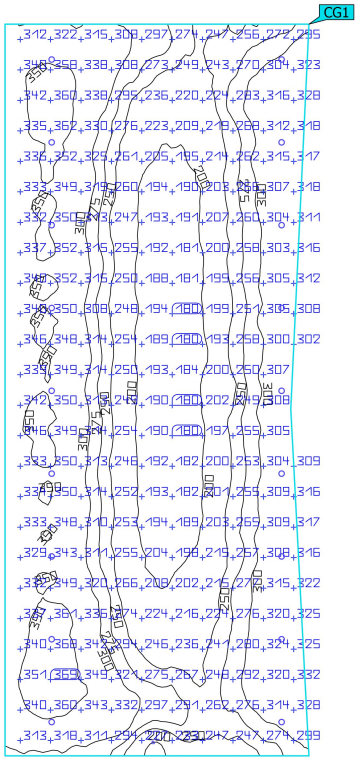


Proprietà	$E_{min.}$	E_{max}	U_d	Indice
Superficie antipanico (Area balconata - P1) Illuminamento perpendicolare (adattivo) Altezza: 0.000 m	16.5 lx	136 lx	0.12	AP2

Edificio 1 · Piano 1 · Area 2 (Scena luce 1)

Area balconata - P1

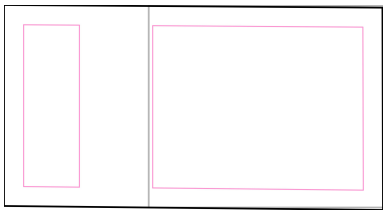


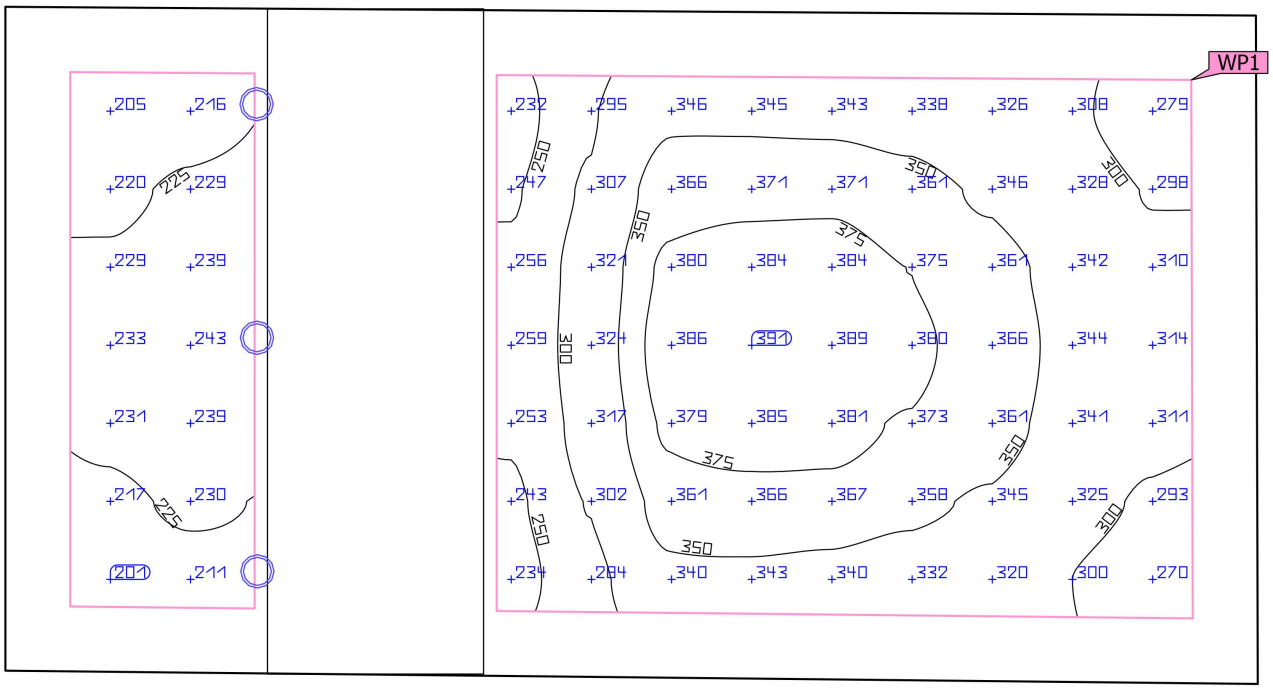


Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Area balconata - P1 Illuminamento perpendicolare (adattivo) Altezza: 0.160 m	280 lx	176 lx	375 lx	0.63	0.47	CG1

(Scena luce 1)

Superficie utile (biglietteria)

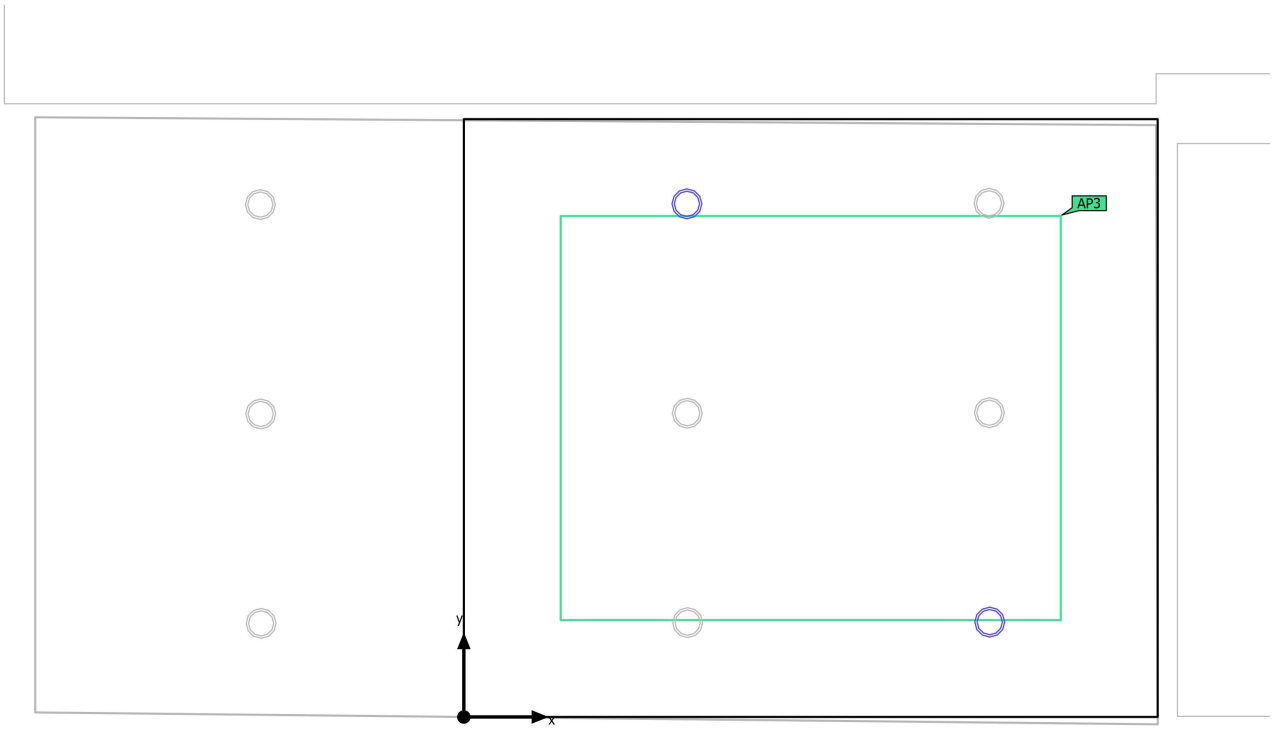




Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie utile (biglietteria) Illuminamento perpendicolare Altezza: 0.000 m, Zona margine: 0.300 m	312 lx	201 lx	391 lx	0.64	0.51	WP1

(Scena illuminazione di emergenza)

Oggetti di calcolo



(Scena illuminazione di emergenza)

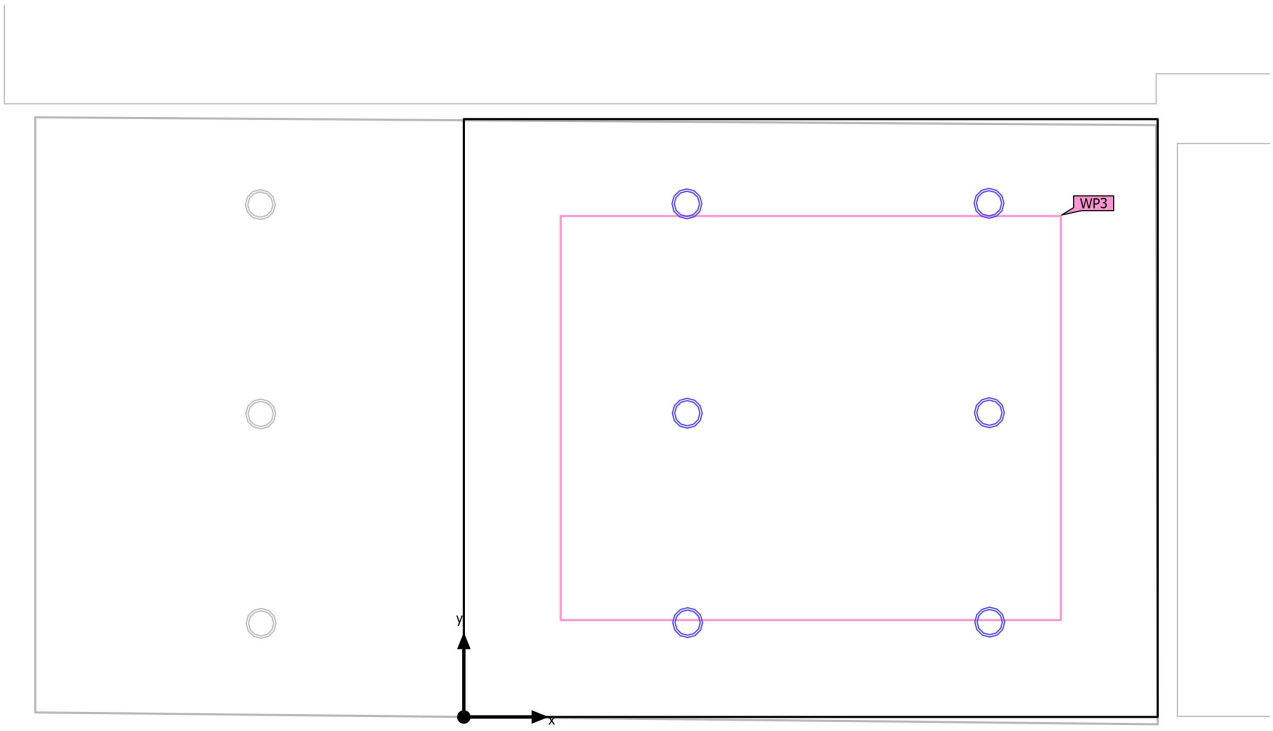
Oggetti di calcolo

Zone antipanico

Proprietà	$E_{min.}$	E_{max}	U_d	Indice
Superficie antipanico (Biglietteria) Illuminamento perpendicolare (adattivo) Altezza: 0.000 m	50.2 lx	94.7 lx	0.53	AP3

(Scena luce 1)

Oggetti di calcolo



(Scena luce 1)

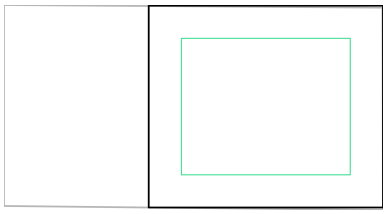
Oggetti di calcolo

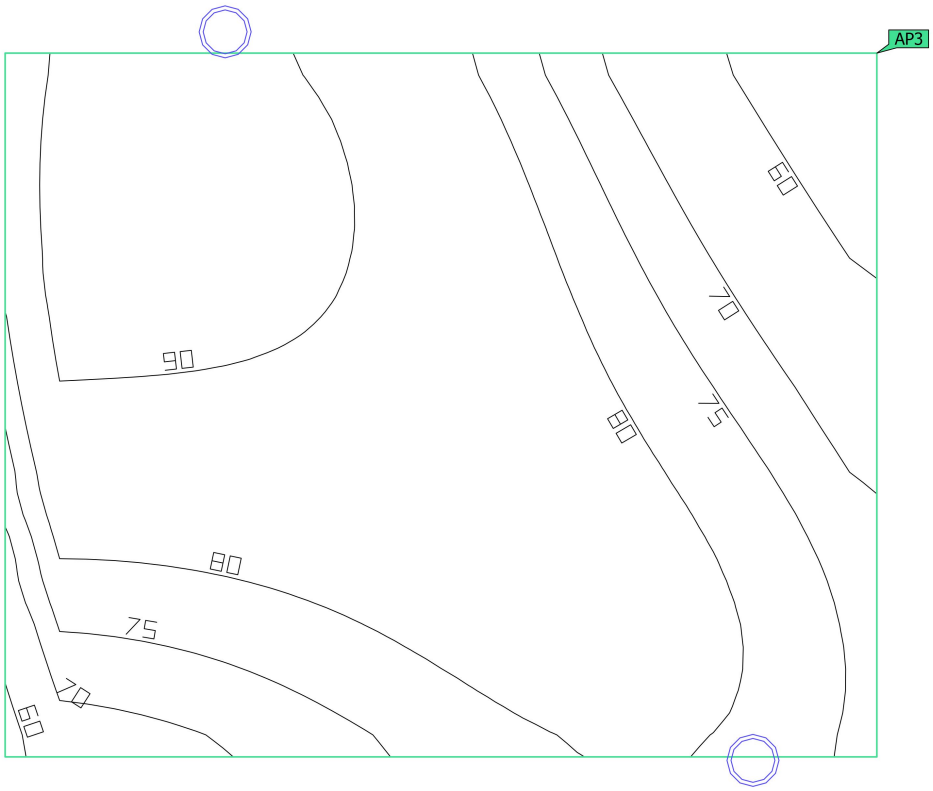
Superfici utili

Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie utile (Biglietteria) Illuminamento perpendicolare Altezza: 0.000 m, Zona margine: 0.500 m	359 lx	303 lx	390 lx	0.84	0.78	WP3

(Scena illuminazione di emergenza)

Superficie antipanico (Biglietteria)

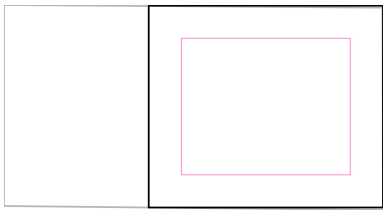


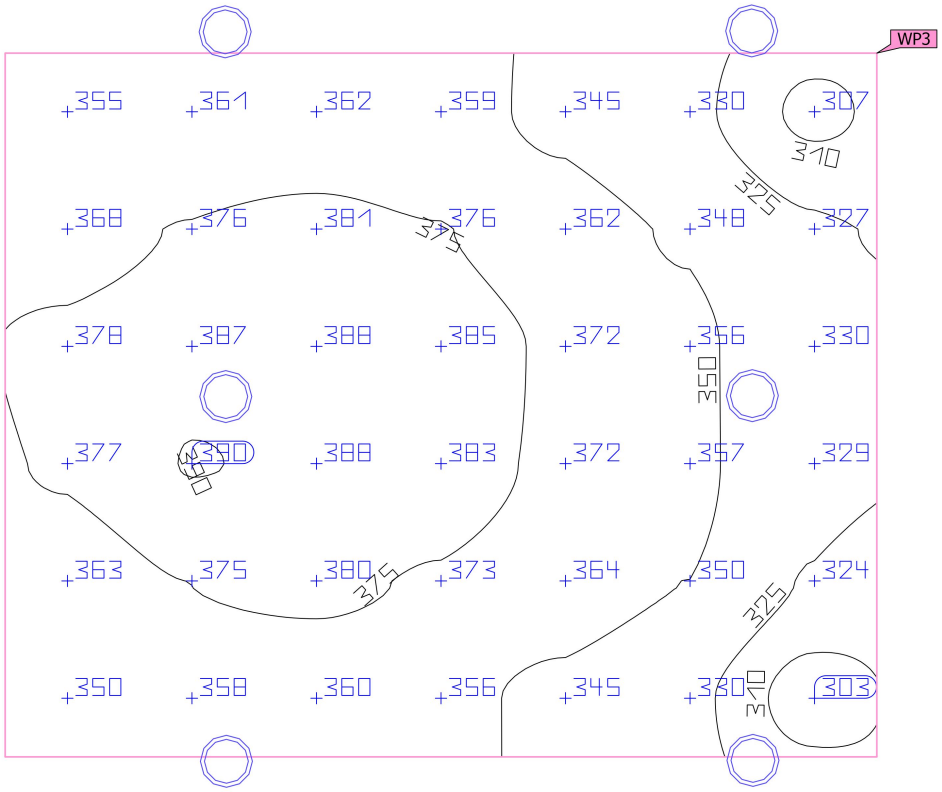


Proprietà	$E_{min.}$	E_{max}	U_d	Indice
Superficie antipanico (Biglietteria) Illuminamento perpendicolare (adattivo) Altezza: 0.000 m	50.2 lx	94.7 lx	0.53	AP3

(Scena luce 1)

Superficie utile (Biglietteria)





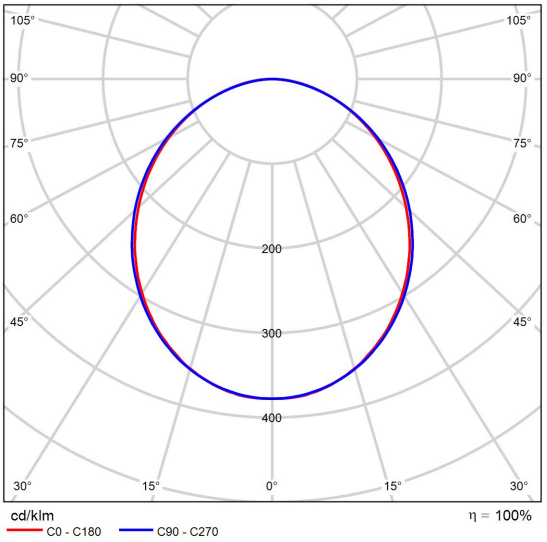
Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie utile (Biglietteria) Illuminamento perpendicolare Altezza: 0.000 m, Zona margine: 0.500 m	359 lx	303 lx	390 lx	0.84	0.78	WP3

DIALux

Scheda tecnica prodotto

Intra Lighting - Kalis 65 RV SOP 2100 lm 22 W 940 L2069 mm DALI IP44 white

Articolo No.	172411H10K1
P	22.2 W
$\Phi_{Lampadina}$	2102 lm
$\Phi_{Lampada}$	2102 lm
η	100.00 %
Efficienza	94.6 lm/W
CCT	4000 K
CRI	90

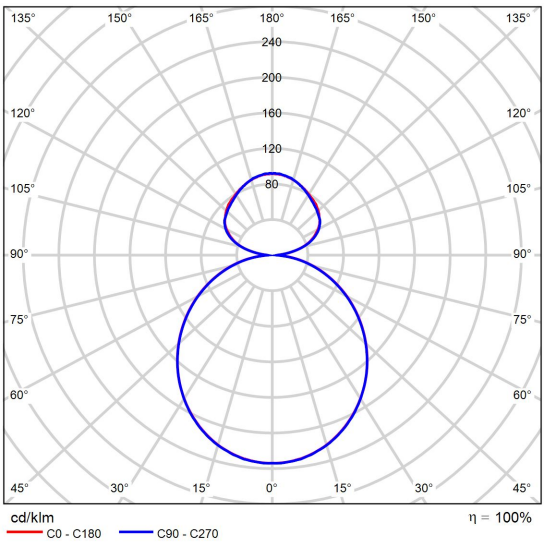


CDL polare

Scheda tecnica prodotto

Intra Lighting - Lona CDI 400 h100 SOP 1600+790 lm 25 W 930 FO IP43 white

Articolo No.	18276412F01
P	24.9 W
$\Phi_{Lampadina}$	2371 lm
$\Phi_{Lampada}$	2371 lm
η	99.99 %
Efficienza	95.4 lm/W
CCT	3000 K
CRI	90



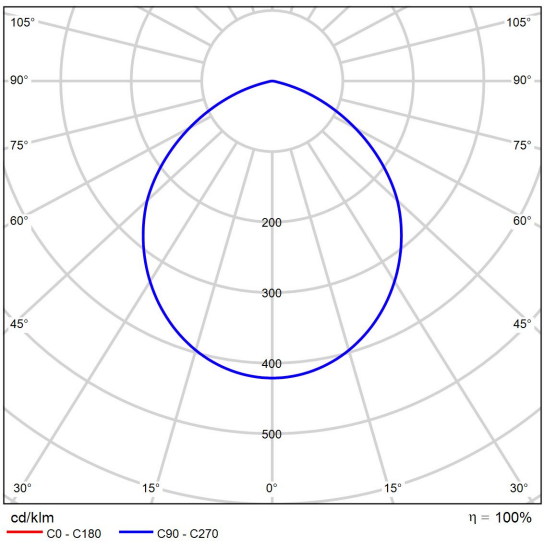
CDL polare

DIALux

Scheda tecnica prodotto

Intra Lighting - Nitor RV SOP 940-1750 lm 9-18 W 350-700 mA 26 V 940 D154 mm IP44 white/white 350 mA

Articolo No.	1481A0342011
P	8.6 W
$\Phi_{Lampadina}$	937 lm
$\Phi_{Lampada}$	937 lm
η	99.99 %
Efficienza	108.7 lm/W
CCT	4000 K
CRI	90

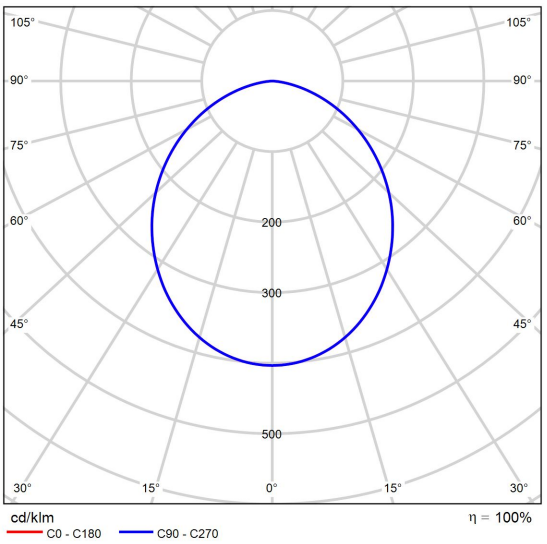


CDL polare

Scheda tecnica prodotto

Intra Lighting - Nola C FL SOP 680-1300 lm 6-13 W 250-500 mA 25 V 940 IP43 matte white/matte white 250 mA

Articolo No.	1829201K1BB
P	6.1 W
$\Phi_{Lampadina}$	680 lm
$\Phi_{Lampada}$	680 lm
η	99.99 %
Efficienza	111.8 lm/W
CCT	4000 K
CRI	90

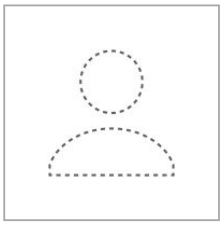


CDL polare

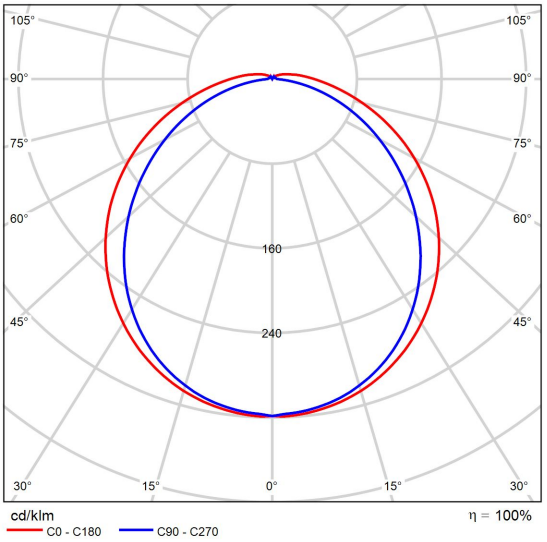
DIALux

Scheda tecnica prodotto

PXF Lighting - Fibra IV LED 1175x98 33W 5395lm 830 OPAL



Articolo No.	HB006.2211.830.XXXX
P	33.0 W
$\Phi_{Lampadina}$	5395 lm
$\Phi_{Lampada}$	5395 lm
η	100.01 %
Efficienza	163.5 lm/W
CCT	3000 K
CRI	80

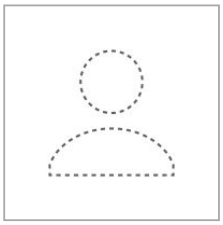


CDL polare

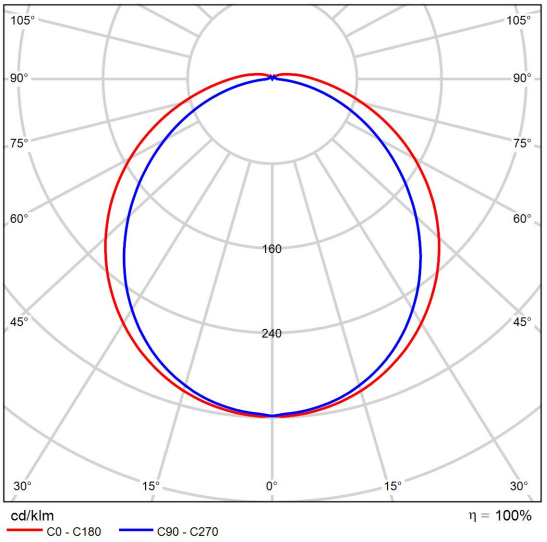
DIALux

Scheda tecnica prodotto

PXF Lighting - Fibra IV LED 1175x98 33W 5395lm 830 OPAL



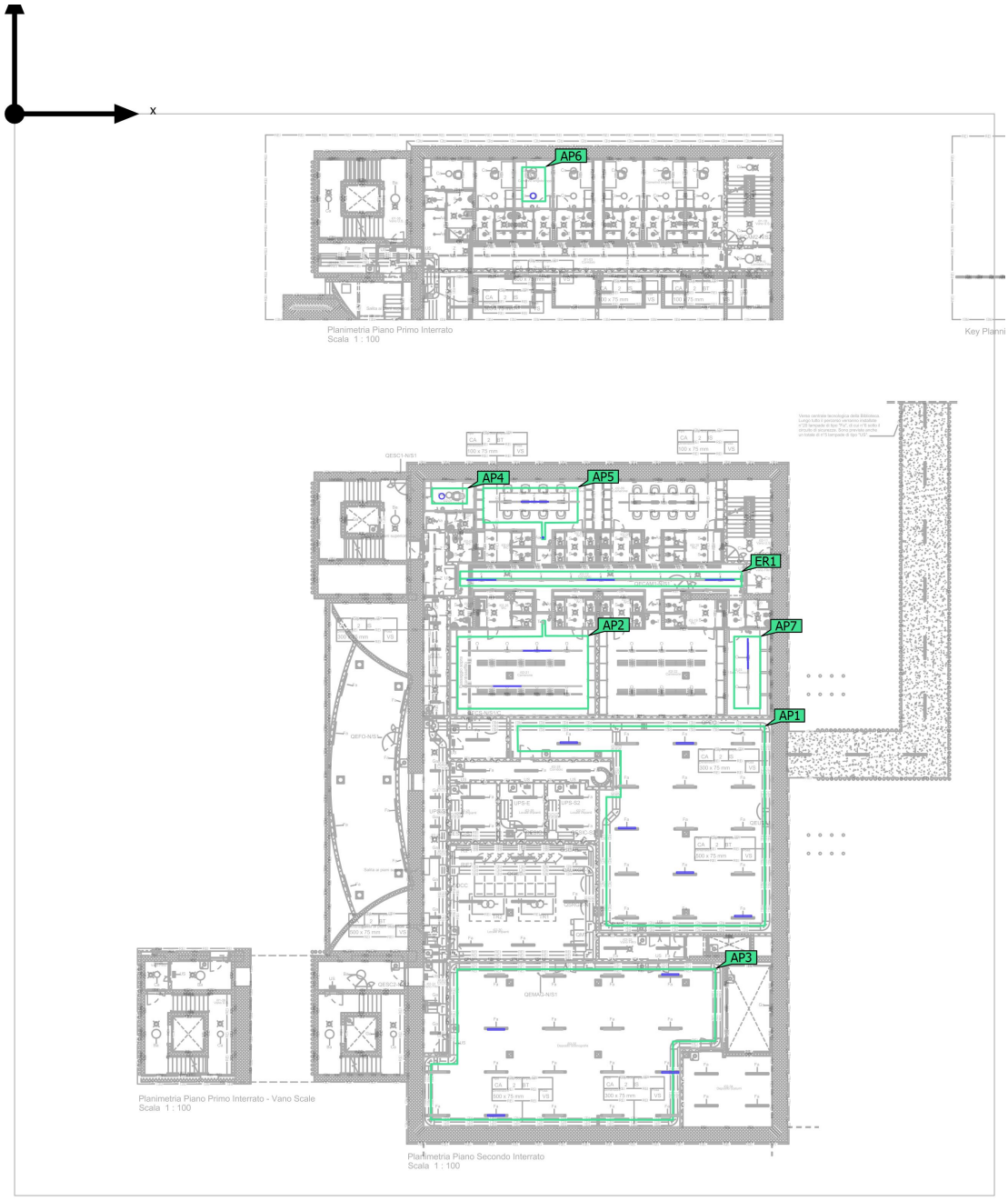
Articolo No.	HB006.2211.830.XXXX
P	35.0 W
$\Phi_{Lampadina}$	5395 lm
$\Phi_{Lampada}$	5395 lm
η	100.01 %
Efficienza	154.2 lm/W
CCT	3000 K
CRI	80



CDL polare

Edificio 1 · Piano 1 (Scena illuminazione di emergenza)

Oggetti di calcolo



Edificio 1 · Piano 1 (Scena illuminazione di emergenza)

Oggetti di calcolo

Zone antipanico

Proprietà	$E_{min.}$	E_{max}	U_d	Indice
Superficie antipanico (Locale impianti) Illuminamento perpendicolare (adattivo) Altezza: 0.000 m	7.78 lx	182 lx	0.043	AP1
Superficie antipanico (Camerone i02-21) Illuminamento perpendicolare (adattivo) Altezza: 0.000 m	5.57 lx	96.6 lx	0.058	AP2
Superficie antipanico (Deposito scenografia) Illuminamento perpendicolare (adattivo) Altezza: 0.000 m	7.92 lx	169 lx	0.047	AP3
Superficie antipanico (Camerino i02-01) Illuminamento perpendicolare (adattivo) Altezza: 0.000 m	29.6 lx	65.0 lx	0.46	AP4
Superficie antipanico (Camerone i02-06) Illuminamento perpendicolare (adattivo) Altezza: 0.000 m	9.53 lx	96.1 lx	0.099	AP5
Superficie antipanico (Camerino singolo/doppio) Illuminamento perpendicolare (adattivo) Altezza: 0.000 m	24.1 lx	73.2 lx	0.33	AP6
Superficie antipanico (Sala Trucco) Illuminamento perpendicolare (adattivo) Altezza: 0.000 m	8.93 lx	94.6 lx	0.094	AP7

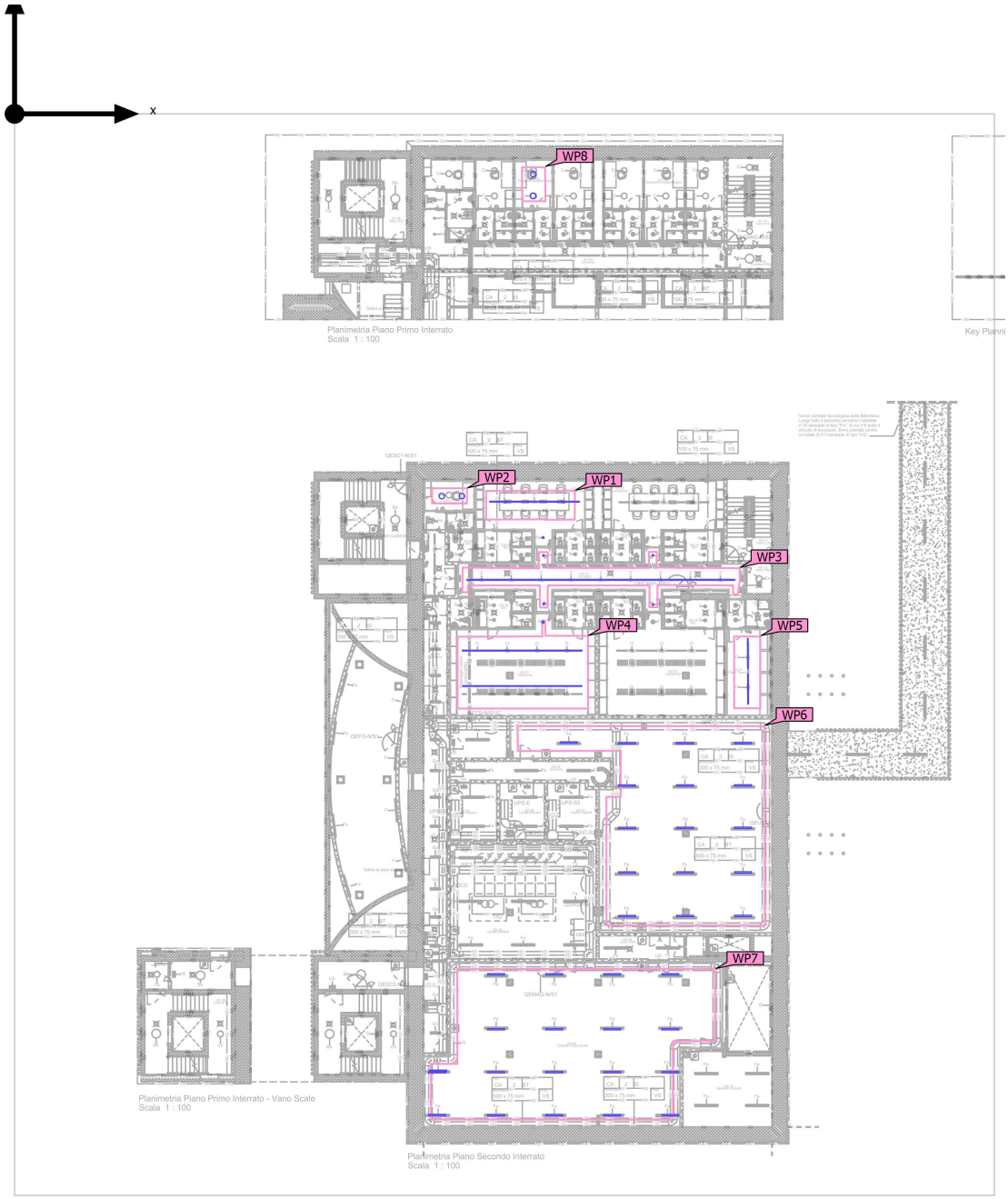
Vie di esodo

Proprietà	$E_{min.}$ Area centrale	E_{max} Area centrale	$E_{min.}$ Linea mediana	E_{max} Linea mediana	U_d	Indice
Via di esodo 1 Illuminamento perpendicolare (adattivo) Altezza: 0.000 m	14.0 lx	83.2 lx	14.3 lx	83.0 lx	0.17	ER1

DIALux

Edificio 1 · Piano 1 (Scena luce 1)

Oggetti di calcolo



Edificio 1 · Piano 1 (Scena luce 1)

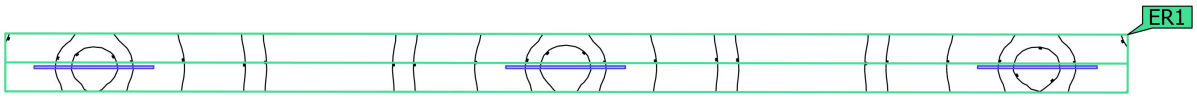
Oggetti di calcolo

Superfici utili

Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Camerone Illuminamento perpendicolare Altezza: 0.000 m, Zona margine: 0.700 m	160 lx	90.5 lx	199 lx	0.57	0.45	WP1
Superficie utile (Camerino i02-01) Illuminamento perpendicolare Altezza: 0.000 m, Zona margine: 0.500 m	184 lx	156 lx	200 lx	0.85	0.78	WP2
Superficie utile (Corridoio i02-12) Illuminamento perpendicolare Altezza: 0.000 m, Zona margine: 0.300 m	206 lx	115 lx	258 lx	0.56	0.45	WP3
Superficie utile (Camerone i02-21) Illuminamento perpendicolare Altezza: 0.000 m, Zona margine: 0.500 m	205 lx	113 lx	270 lx	0.55	0.42	WP4
Superficie utile (Sala Trucco) Illuminamento perpendicolare Altezza: 0.000 m, Zona margine: 0.500 m	138 lx	97.9 lx	165 lx	0.71	0.59	WP5
Superficie utile (Locale impianti) Illuminamento perpendicolare Altezza: 0.000 m, Zona margine: 0.500 m	321 lx	75.5 lx	383 lx	0.24	0.20	WP6
Superficie utile (Deposito scenografia) Illuminamento perpendicolare Altezza: 0.000 m, Zona margine: 0.500 m	322 lx	131 lx	467 lx	0.41	0.28	WP7
Superficie utile (Camerino singolo/doppio) Illuminamento perpendicolare Altezza: 1.000 m, Zona margine: 0.500 m	306 lx	254 lx	351 lx	0.83	0.72	WP8

Edificio 1 · Piano 1 (Scena illuminazione di emergenza)

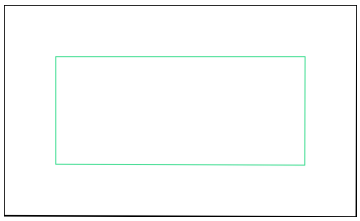
Via di esodo 1

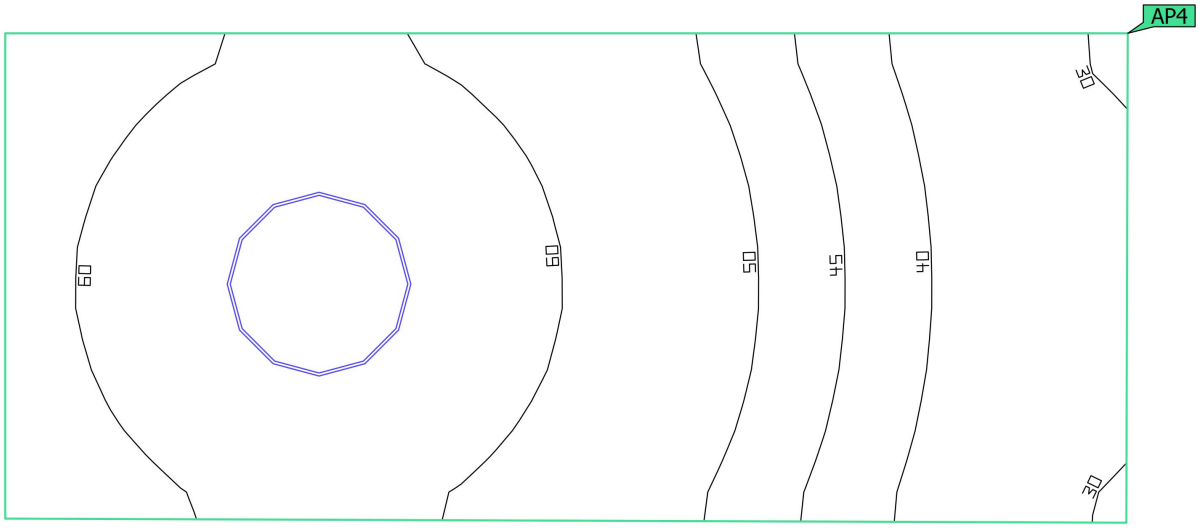


Proprietà	$E_{min.}$ Area centrale	E_{max} Area centrale	$E_{min.}$ Linea mediana	E_{max} Linea mediana	U_d	Indice
Via di esodo 1 Illuminamento perpendicolare (adattivo) Altezza: 0.000 m	14.0 lx	83.2 lx	14.3 lx	83.0 lx	0.17	ER1

Edificio 1 · Piano 1 · Camerino i02-01 (Scena illuminazione di emergenza)

Superficie antipanico (Camerino i02-01)



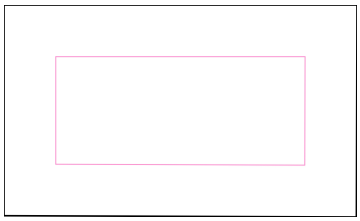


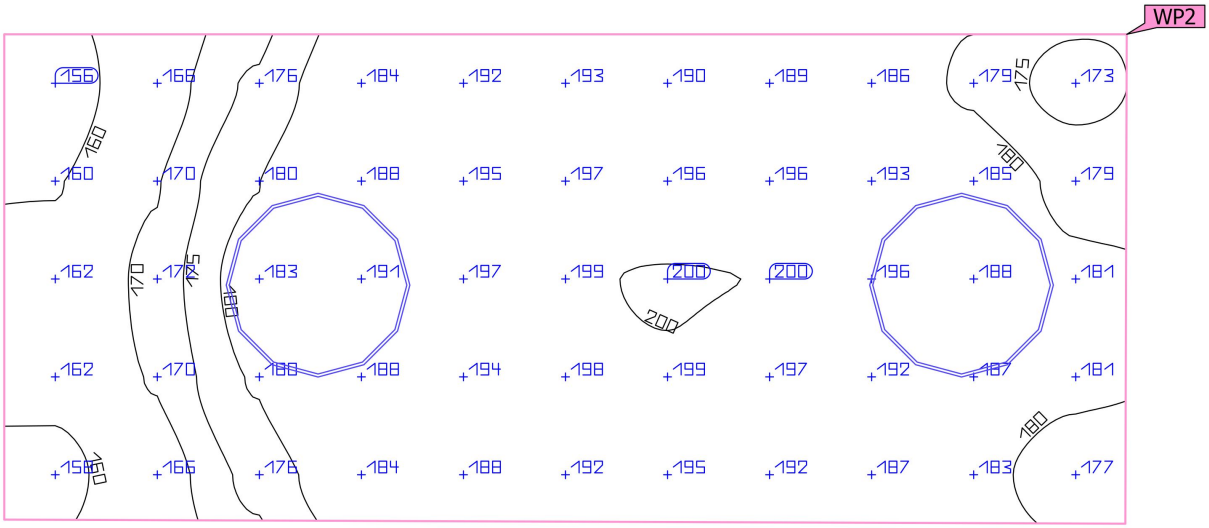
Proprietà	$E_{min.}$	E_{max}	U_d	Indice
Superficie antipanico (Camerino i02-01) Illuminamento perpendicolare (adattivo) Altezza: 0.000 m	29.6 lx	65.0 lx	0.46	AP4

DIALux

Edificio 1 · Piano 1 · Camerino i02-01 (Scena luce 1)

Superficie utile (Camerino i02-01)

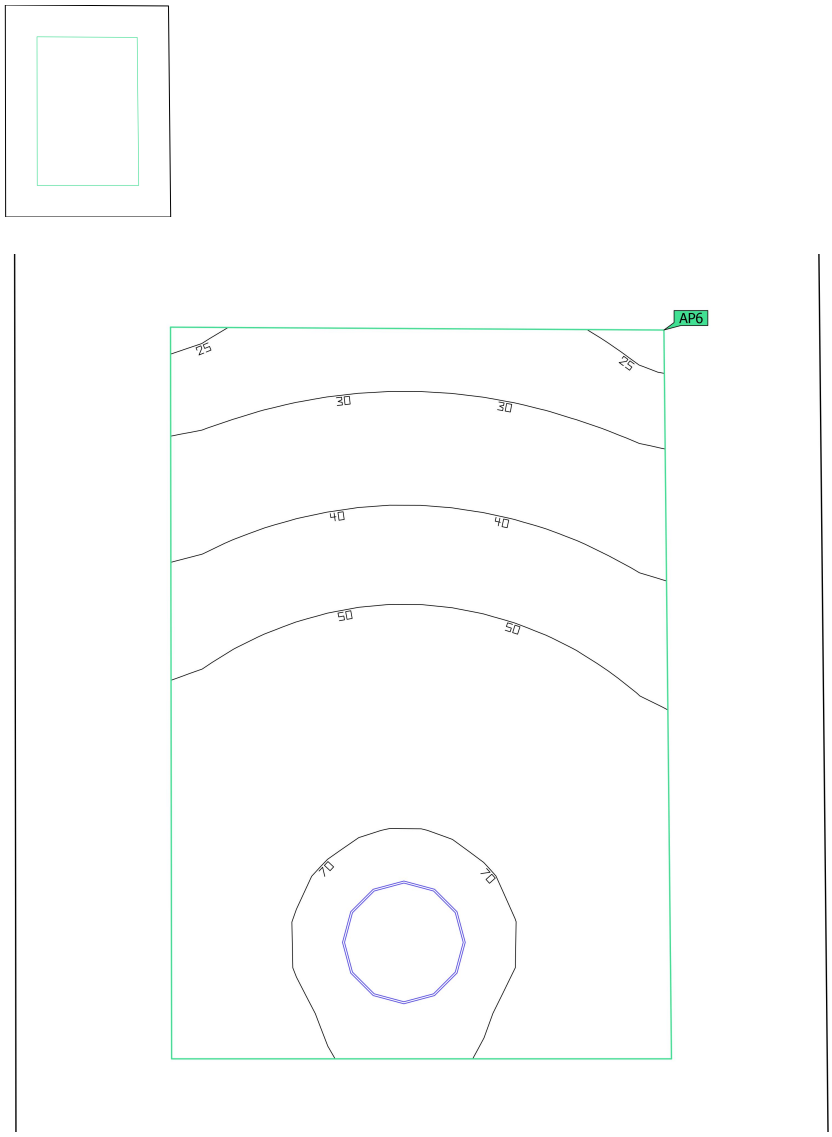




Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie utile (Camerino i02-01) Illuminamento perpendicolare Altezza: 0.000 m, Zona margine: 0.500 m	184 lx	156 lx	200 lx	0.85	0.78	WP2

Edificio 1 · Piano 1 · Camerino singolo/doppio (Scena illuminazione di emergenza)

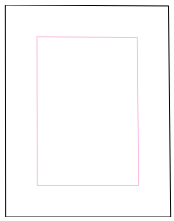
Superficie antipanico (Camerino singolo/doppio)

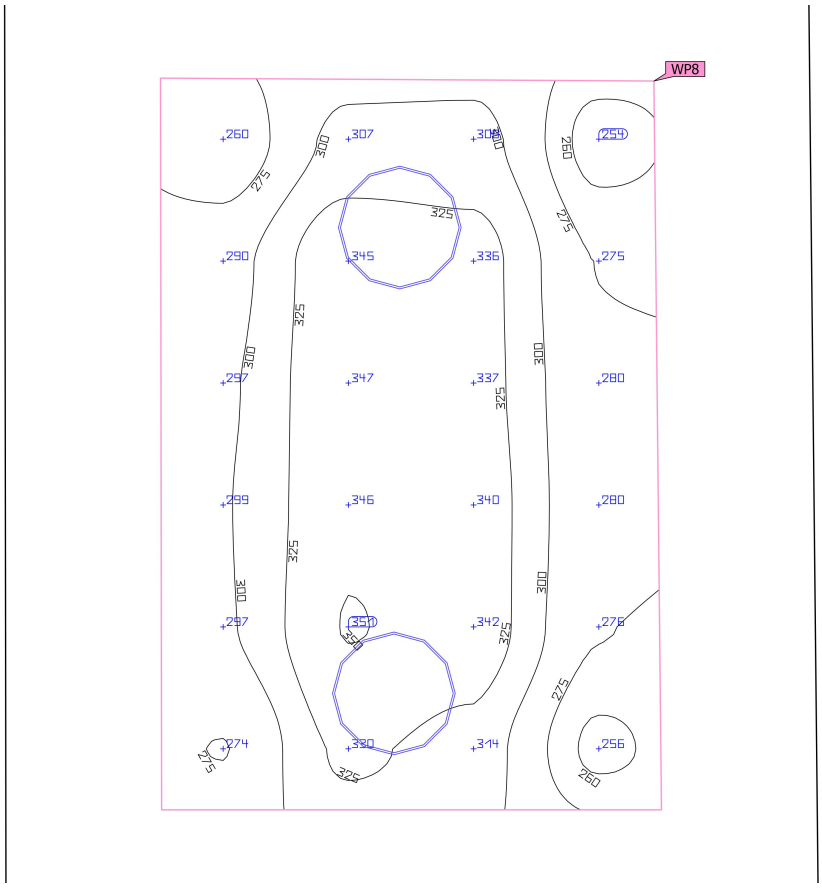


Proprietà	$E_{min.}$	E_{max}	U_d	Indice
Superficie antipanico (Camerino singolo/doppio) Illuminamento perpendicolare (adattivo) Altezza: 0.000 m	24.1 lx	73.2 lx	0.33	AP6

Edificio 1 · Piano 1 · Camerino singolo/doppio (Scena luce 1)

Superficie utile (Camerino singolo/doppio)

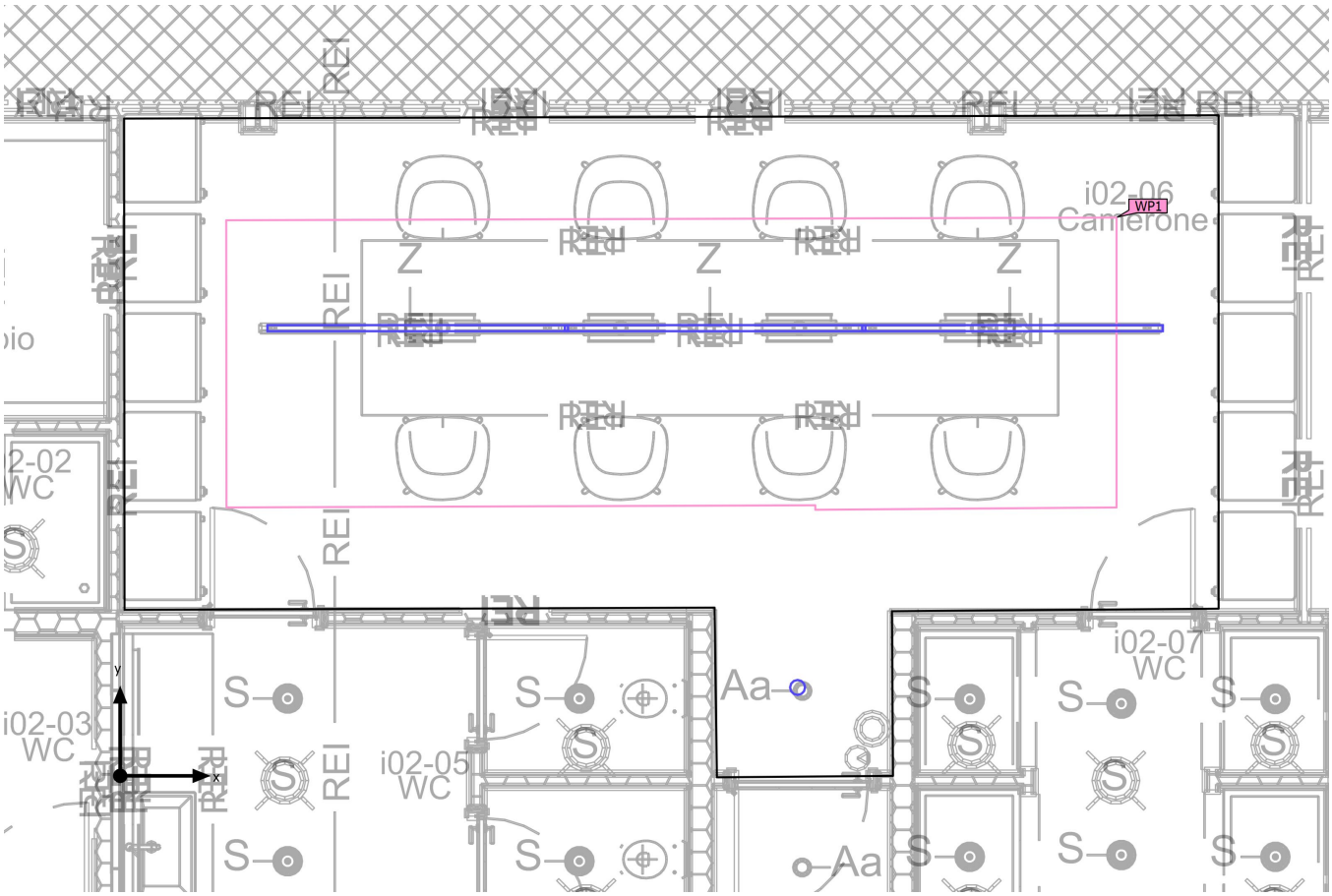




Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie utile (Camerino singolo/doppio) Illuminamento perpendicolare Altezza: 1.000 m, Zona margine: 0.500 m	306 lx	254 lx	351 lx	0.83	0.72	WP8

Edificio 1 · Piano 1 · Camerone i02-06 (Scena luce 1)

Oggetti di calcolo



Edificio 1 · Piano 1 · Camerone i02-06 (Scena luce 1)

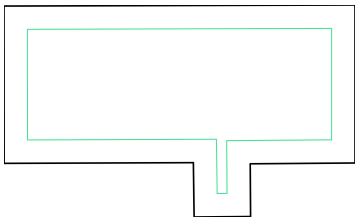
Oggetti di calcolo

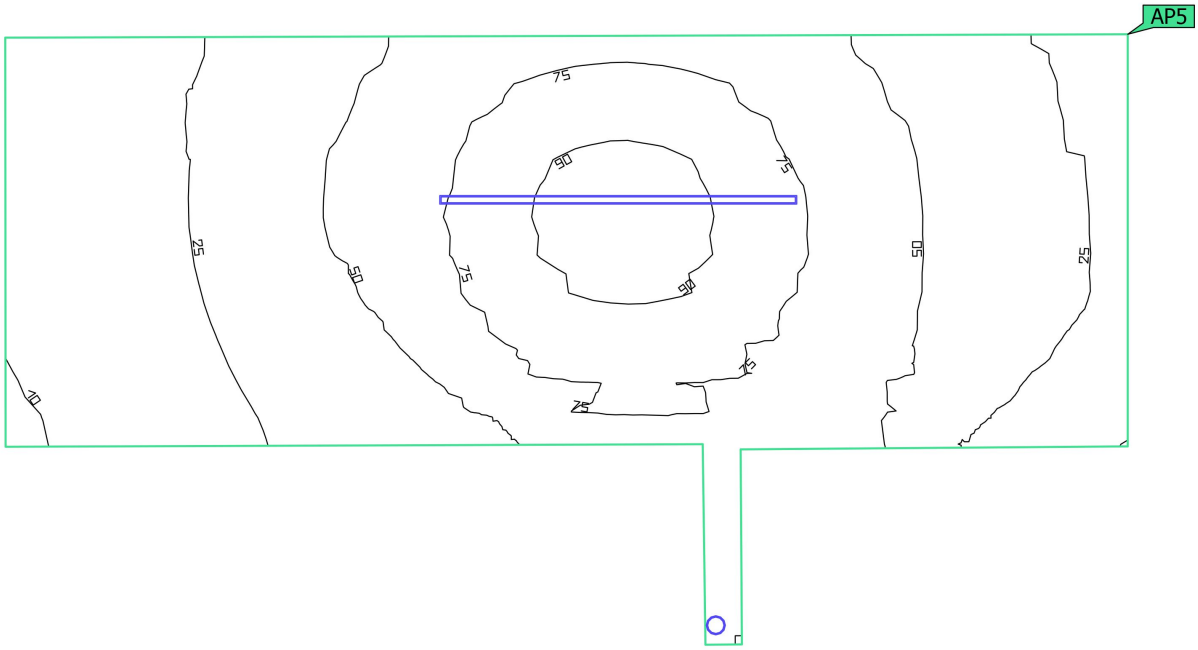
Superfici utili

Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Camerone Illuminamento perpendicolare Altezza: 0.000 m, Zona margine: 0.700 m	160 lx	90.5 lx	199 lx	0.57	0.45	WP1

Edificio 1 · Piano 1 · Camerone i02-06 (Scena illuminazione di emergenza)

Superficie antipanico (Camerone i02-06)

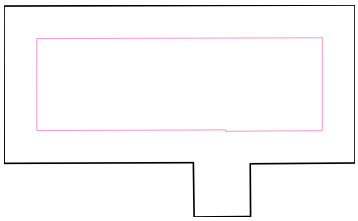


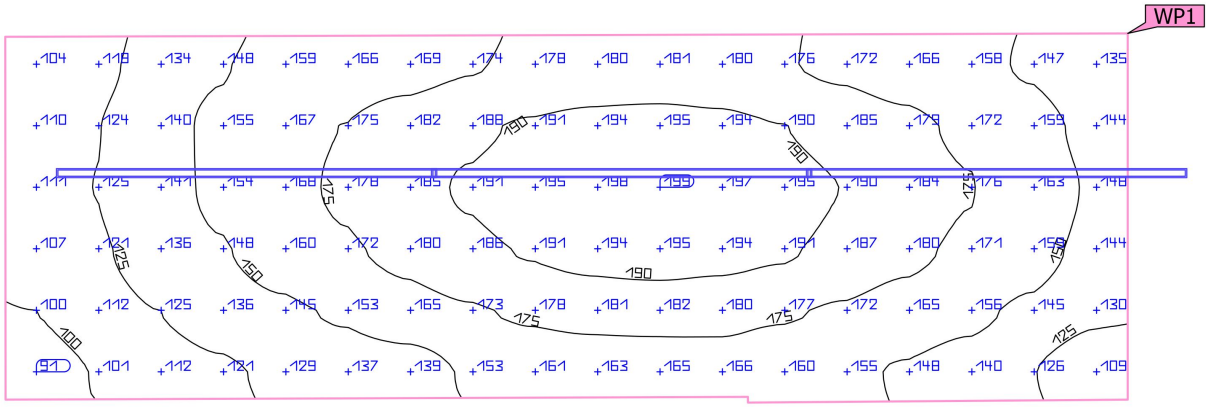


Proprietà	$E_{min.}$	E_{max}	U_d	Indice
Superficie antipanico (Camerone i02-06) Illuminamento perpendicolare (adattivo) Altezza: 0.000 m	9.53 lx	96.1 lx	0.099	AP5

Edificio 1 · Piano 1 · Camerone i02-06 (Scena luce 1)

Camerone

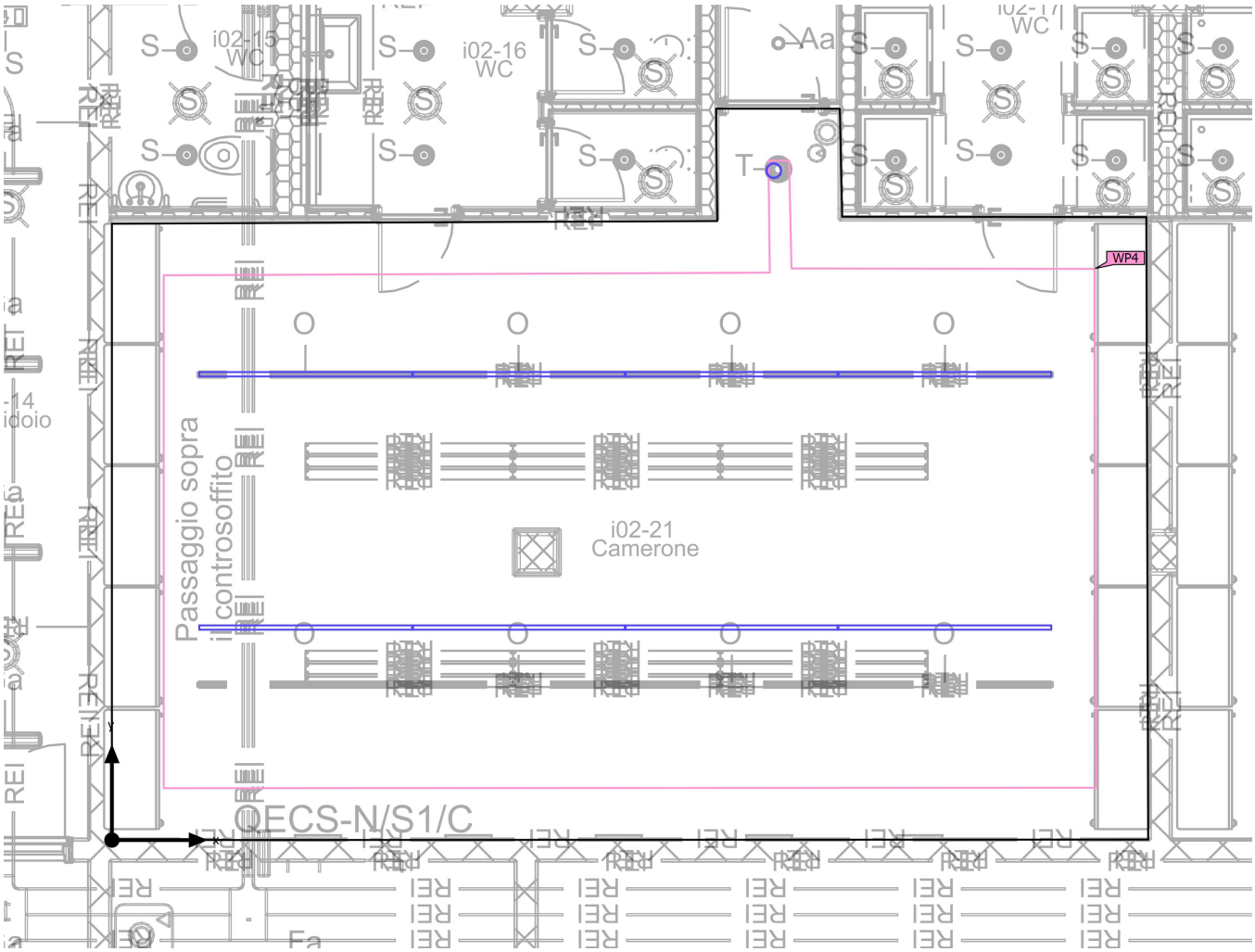




Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Camerone Illuminamento perpendicolare Altezza: 0.000 m, Zona margine: 0.700 m	160 lx	90.5 lx	199 lx	0.57	0.45	WP1

Edificio 1 · Piano 1 · Camerone i02-21 (Scena luce 1)

Oggetti di calcolo



Edificio 1 · Piano 1 · Camerone i02-21 (Scena luce 1)

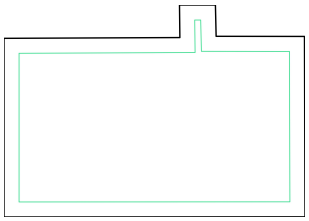
Oggetti di calcolo

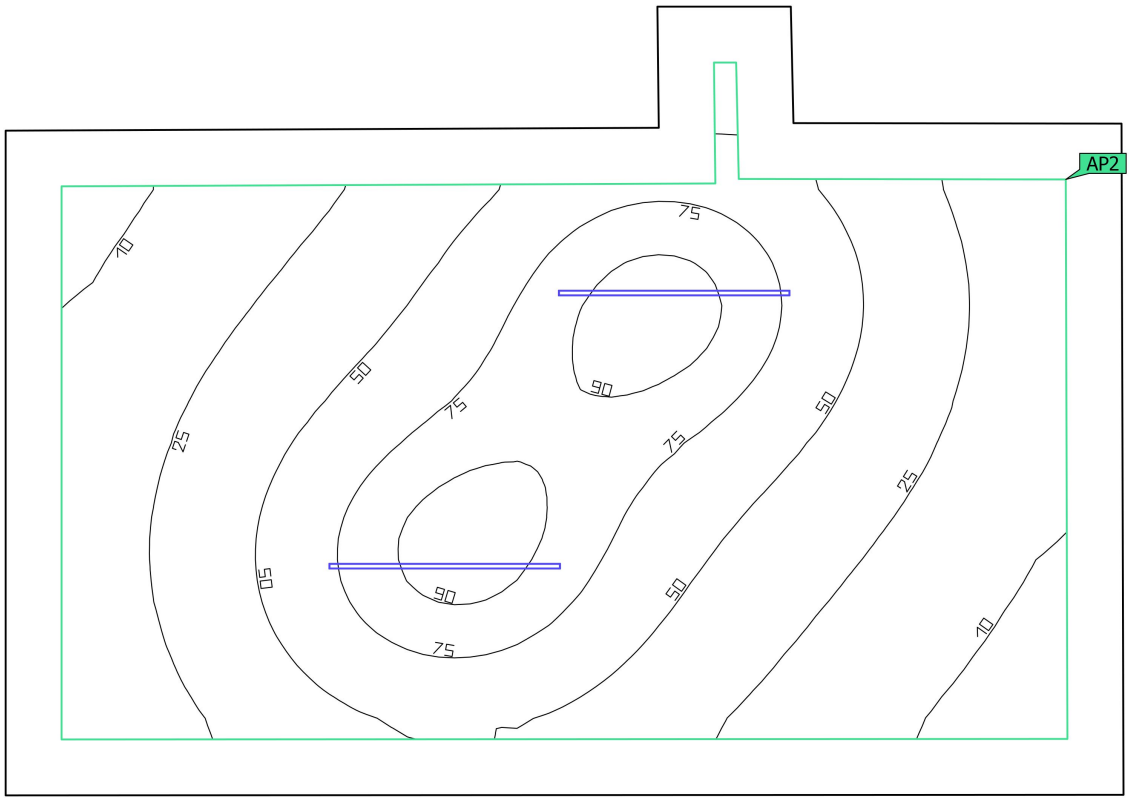
Superfici utili

Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie utile (Camerone i02-21) Illuminamento perpendicolare Altezza: 0.000 m, Zona margine: 0.500 m	205 lx	113 lx	270 lx	0.55	0.42	WP4

Edificio 1 · Piano 1 · Camerone i02-21 (Scena illuminazione di emergenza)

Superficie antipanico (Camerone i02-21)

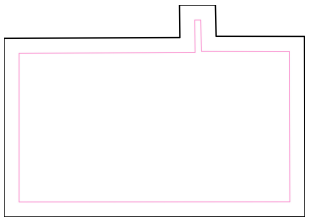


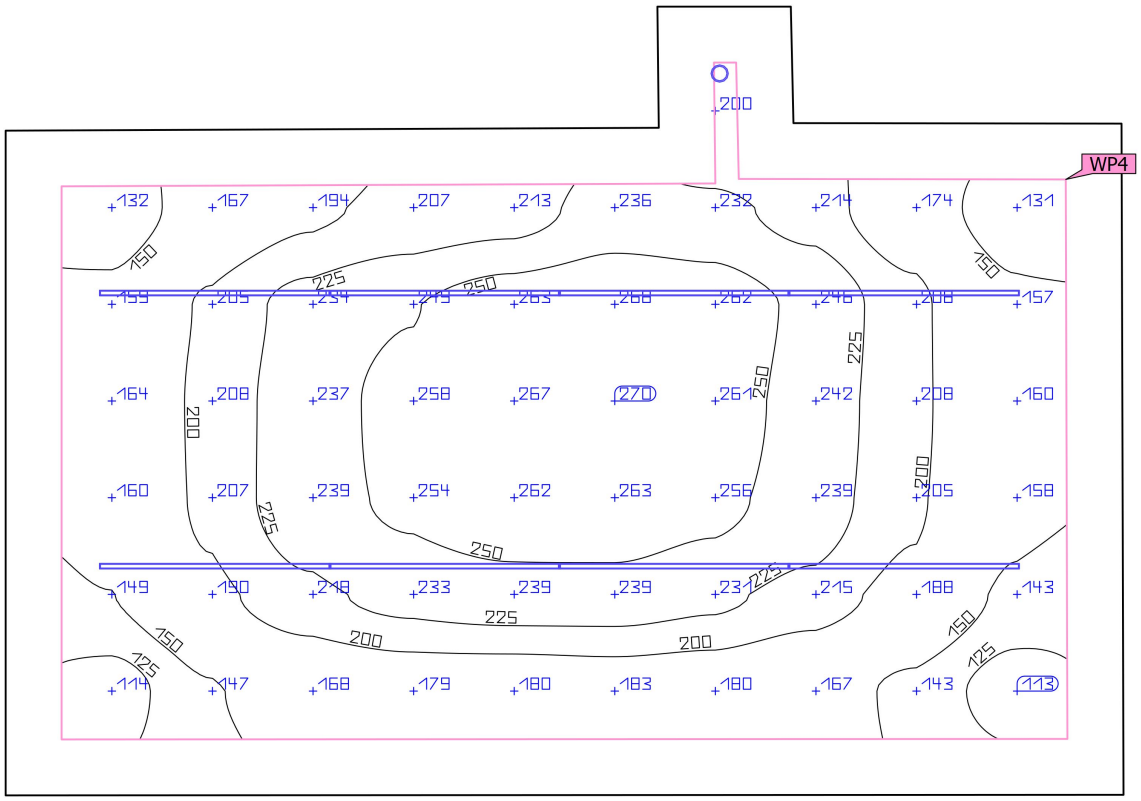


Proprietà	$E_{min.}$	E_{max}	U_d	Indice
Superficie antipanico (Camerone i02-21) Illuminamento perpendicolare (adattivo) Altezza: 0.000 m	5.57 lx	96.6 lx	0.058	AP2

Edificio 1 · Piano 1 · Camerone i02-21 (Scena luce 1)

Superficie utile (Camerone i02-21)

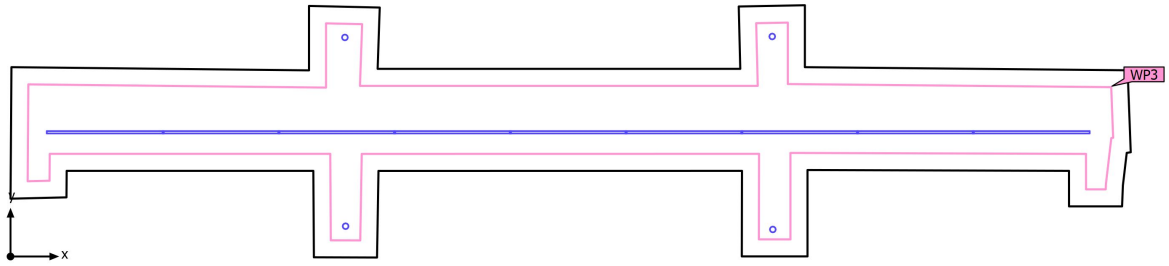




Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie utile (Camerone i02-21) Illuminamento perpendicolare Altezza: 0.000 m, Zona margine: 0.500 m	205 lx	113 lx	270 lx	0.55	0.42	WP4

Edificio 1 · Piano 1 · Corridoio i02-12 (Scena luce 1)

Oggetti di calcolo



Edificio 1 · Piano 1 · Corridoio i02-12 (Scena luce 1)

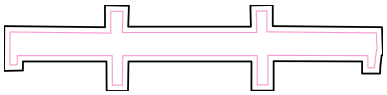
Oggetti di calcolo

Superfici utili

Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie utile (Corridoio i02-12) Illuminamento perpendicolare Altezza: 0.000 m, Zona margine: 0.300 m	206 lx	115 lx	258 lx	0.56	0.45	WP3

Edificio 1 · Piano 1 · Corridoio i02-12 (Scena luce 1)

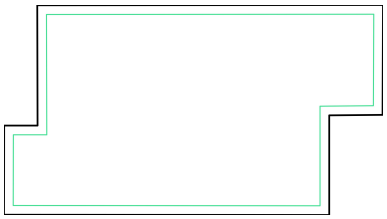
Superficie utile (Corridoio i02-12)

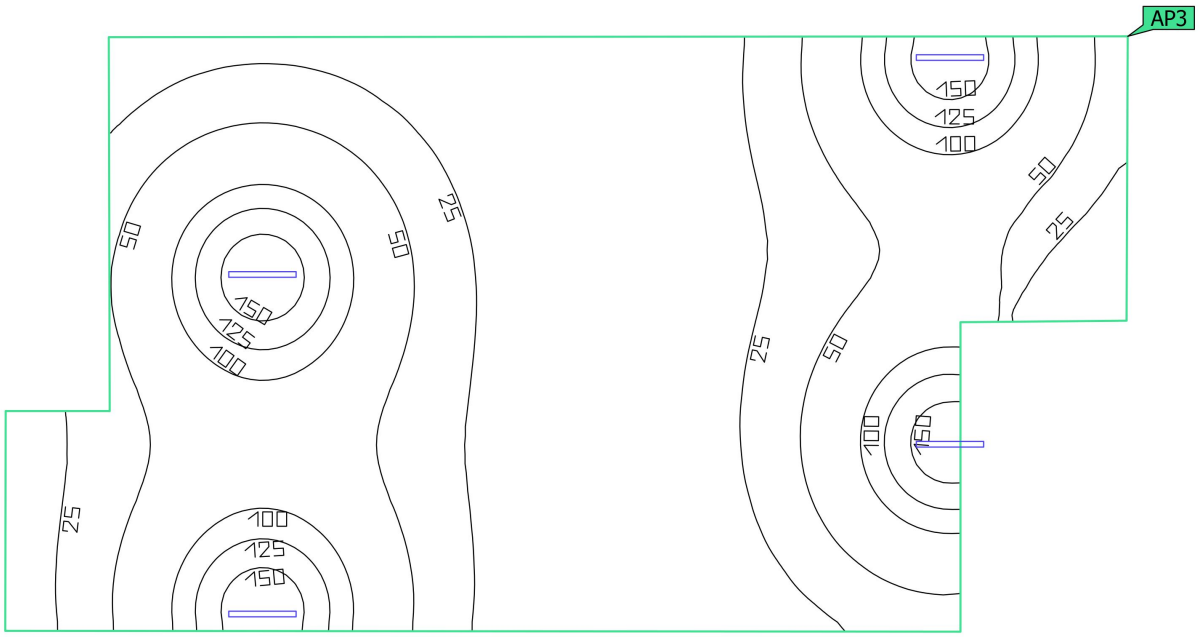


Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie utile (Corridoio i02-12) Illuminamento perpendicolare Altezza: 0.000 m, Zona margine: 0.300 m	206 lx	115 lx	258 lx	0.56	0.45	WP3

Edificio 1 · Piano 1 · Deposito scenografia (Scena illuminazione di emergenza)

Superficie antipanico (Deposito scenografia)

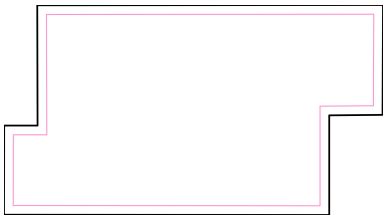


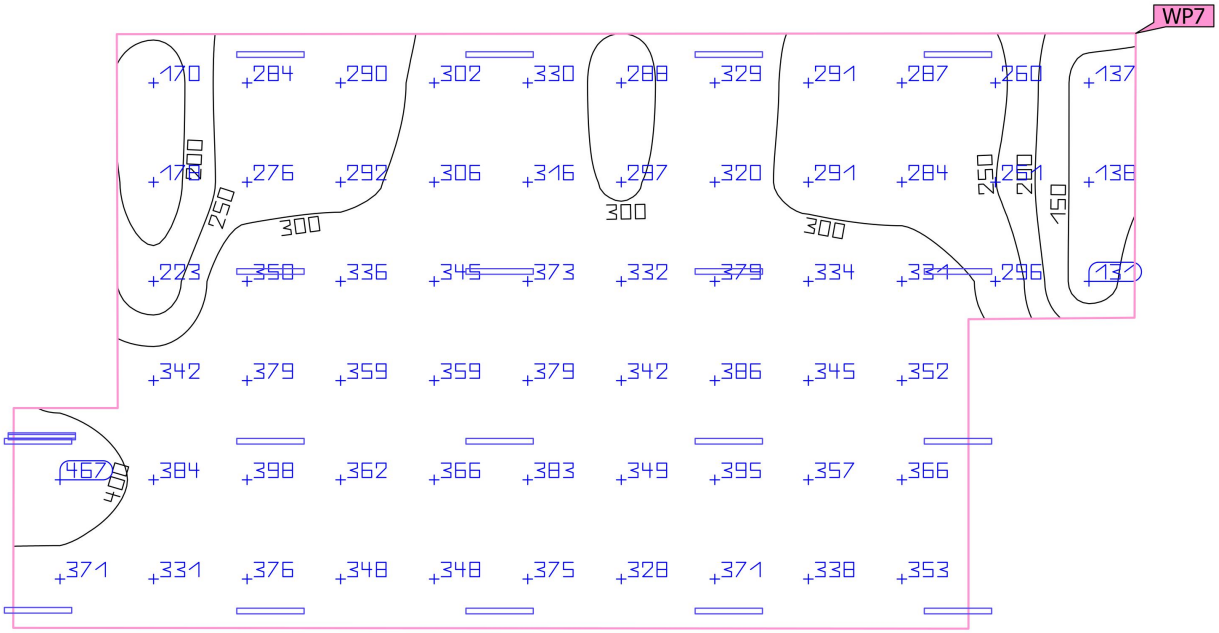


Proprietà	$E_{min.}$	E_{max}	U_d	Indice
Superficie antipanico (Deposito scenografia) Illuminamento perpendicolare (adattivo) Altezza: 0.000 m	7.92 lx	169 lx	0.047	AP3

Edificio 1 · Piano 1 · Deposito scenografia (Scena luce 1)

Superficie utile (Deposito scenografia)

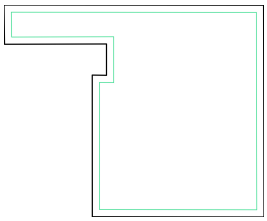


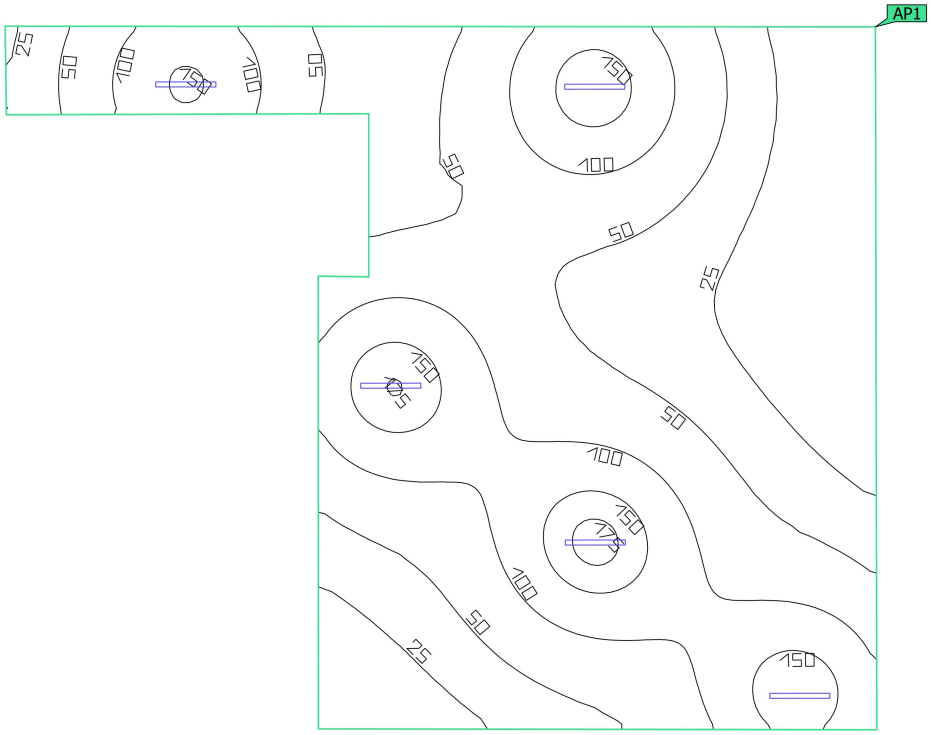


Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie utile (Deposito scenografia) Illuminamento perpendicolare Altezza: 0.000 m, Zona margine: 0.500 m	322 lx	131 lx	467 lx	0.41	0.28	WP7

Edificio 1 · Piano 1 · Locale impianti (Scena illuminazione di emergenza)

Superficie antipanico (Locale impianti)



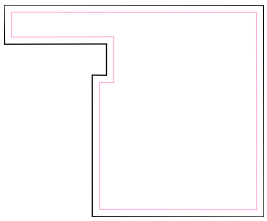


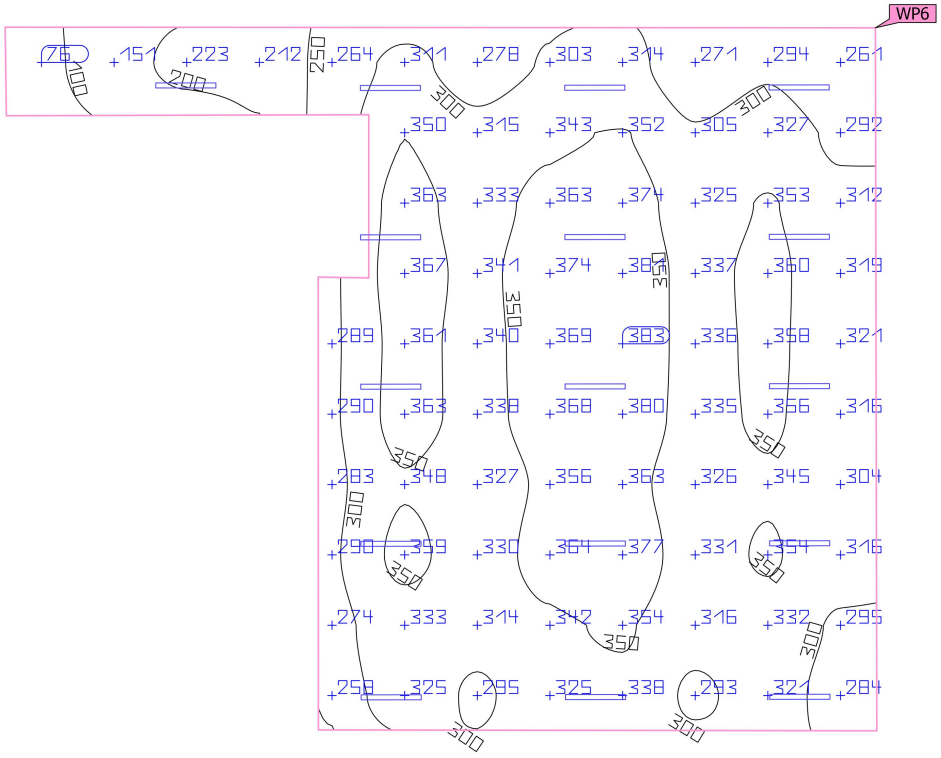
Proprietà	$E_{min.}$	E_{max}	U_d	Indice
Superficie antipanico (Locale impianti) Illuminamento perpendicolare (adattivo) Altezza: 0.000 m	7.78 lx	182 lx	0.043	AP1

DIALux

Edificio 1 · Piano 1 · Locale impianti (Scena luce 1)

Superficie utile (Locale impianti)

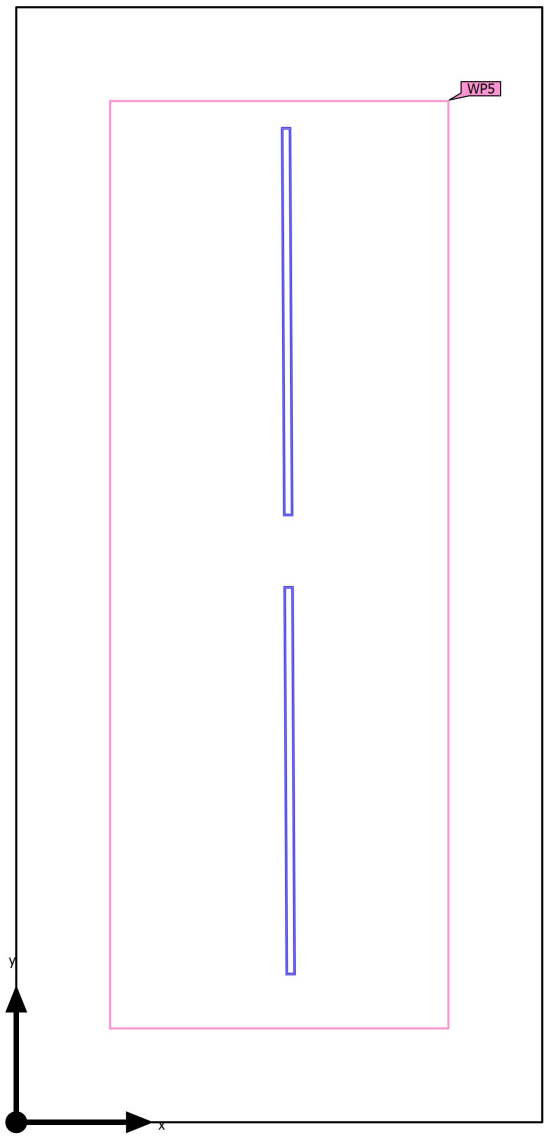




Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie utile (Locale impianti) Illuminamento perpendicolare Altezza: 0.000 m, Zona margine: 0.500 m	321 lx	75.5 lx	383 lx	0.24	0.20	WP6

Edificio 1 · Piano 1 · Sala Trucco (Scena luce 1)

Oggetti di calcolo



Edificio 1 · Piano 1 · Sala Trucco (Scena luce 1)

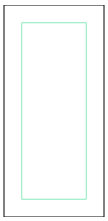
Oggetti di calcolo

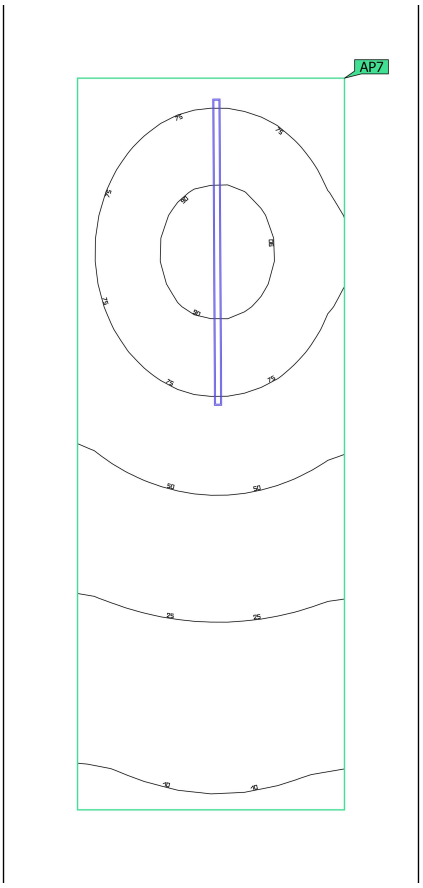
Superfici utili

Proprietà	$\bar{E}$	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie utile (Sala Trucco) Illuminamento perpendicolare Altezza: 0.000 m, Zona margine: 0.500 m	138 lx	97.9 lx	165 lx	0.71	0.59	WP5

Edificio 1 · Piano 1 · Sala Trucco (Scena illuminazione di emergenza)

Superficie antipanico (Sala Trucco)

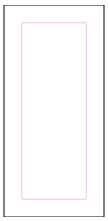


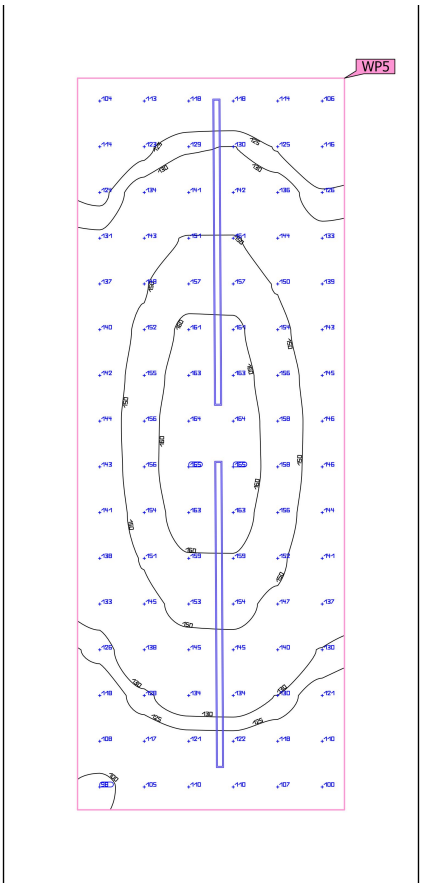


Proprietà	$E_{min.}$	E_{max}	U_d	Indice
Superficie antipanico (Sala Trucco) Illuminamento perpendicolare (adattivo) Altezza: 0.000 m	8.93 lx	94.6 lx	0.094	AP7

Edificio 1 · Piano 1 · Sala Trucco (Scena luce 1)

Superficie utile (Sala Trucco)

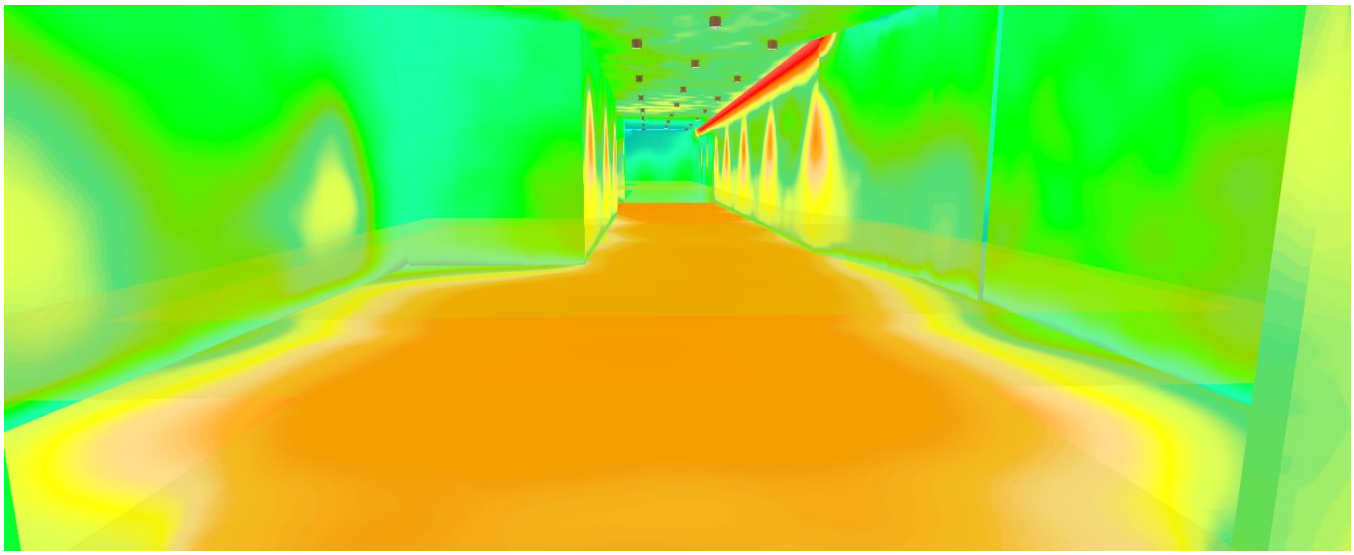




Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie utile (Sala Trucco) Illuminamento perpendicolare Altezza: 0.000 m, Zona margine: 0.500 m	138 lx	97.9 lx	165 lx	0.71	0.59	WP5

DIALux

Immagini

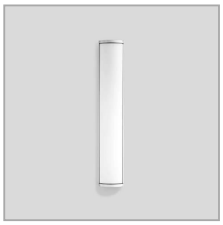


DIALux

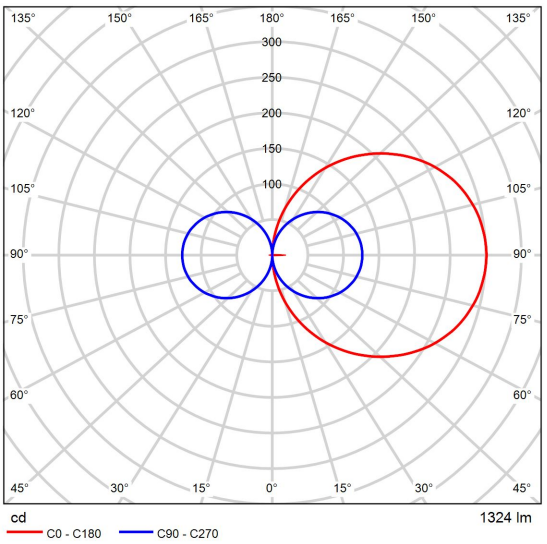
Scheda tecnica prodotto

BEGA - Applique a LED

BEGA



Articolo No.	50608.1K3
P	14.6 W
$\Phi_{Lampadina}$	–
$\Phi_{Lampada}$	1324 lm
η	–
Efficienza	90.7 lm/W
CCT	3000 K
CRI	80



CDL polare

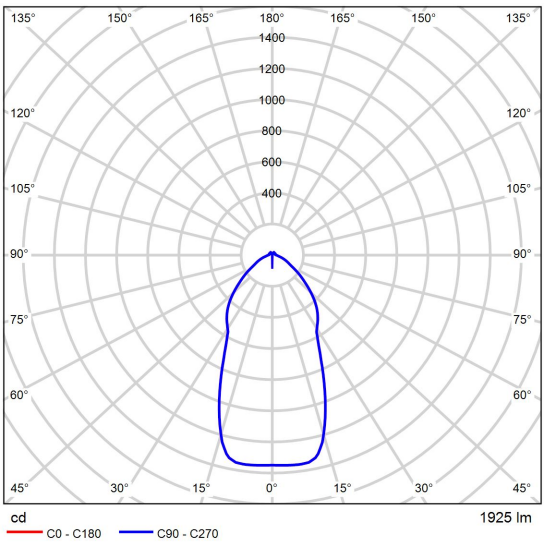
BEGA Wall luminaire 50608.1K3 for interior applications. Unshielded light. LED, 14.6 W Luminaire connected wattage, Luminaire luminous flux 1325 lm, colour temperature 3000 K. Colour rendering index (CRI) > 90. With replaceable BEGA LED module with overheating protection and an expected service life of at least 50,000 operating hours. 20 years warranty of availability of LED module and wear parts. With LED power supply unit 220-240 V, 0/50-60 Hz. Protection class IP 44. Luminaire housing made of cast aluminium and aluminium. Finish colour white. Hand-blown opal glass satin matt. Two cable entries for through-wiring power connecting cable up to 11 mm in diameter, max. 5 x 1.5 qmm. Dimensions: 500 x 90 x 80 mm.

DIALux

Scheda tecnica prodotto

BEGA - LED 18W

Articolo No.	66057K3
P	18.0 W
$\Phi_{Lampadina}$	–
$\Phi_{Lampada}$	1925 lm
η	–
Efficienza	106.9 lm/W
CCT	3000 K
CRI	80



CDL polare

BEGA Deckenaufbau-Tiefstrahler 66057K3 mit zusätzlichem vertikalen Lichtanteil.
LED, 18 W Leuchten-Anschlussleistung, Leuchten-Lichtstrom 1925 lm,
Halbstreuwinkel 53°, Farbtemperatur 3000 K. Farbwiedergabeindex (Ra) > 80.
Mit austauschbarem BEGA LED-Modul mit Übertemperaturschutz und einer
Lebenserwartung von mindestens 50.000 Betriebsstunden.
20-jährige Nachliefergarantie auf das LED-Modul und die Verschleißteile.
Mit LED-Netzteil, DALI steuerbar, 220-240 V, 0/50-60 Hz. Schutzart IP 65.
Leuchte aus Aluminiumguss, Aluminium und Edelstahl, Farbe Grafit.
Kristallglas teilmattiert. Reflektor aus eloxiertem Reinstaluminium.
Zwei Leitungseinführungen zur Durchverdrahtung der Netzanschlussleitung
bis Ø 10,5 mm, max. 5 x 1,5 qmm. Leuchtendurchmesser 190 mm, Höhe 160 mm.

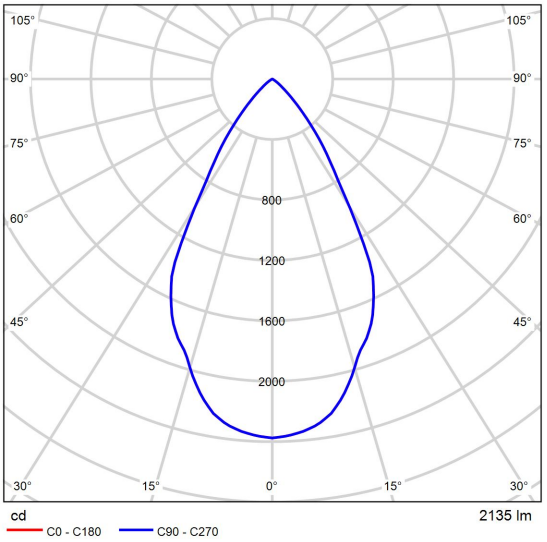
DIALux

Scheda tecnica prodotto

BEGA - LED 19,5W

BEGA

Articolo No.	50479.1K3
P	19.5 W
$\Phi_{Lampadina}$	–
$\Phi_{Lampada}$	2135 lm
η	–
Efficienza	109.5 lm/W
CCT	3000 K
CRI	90



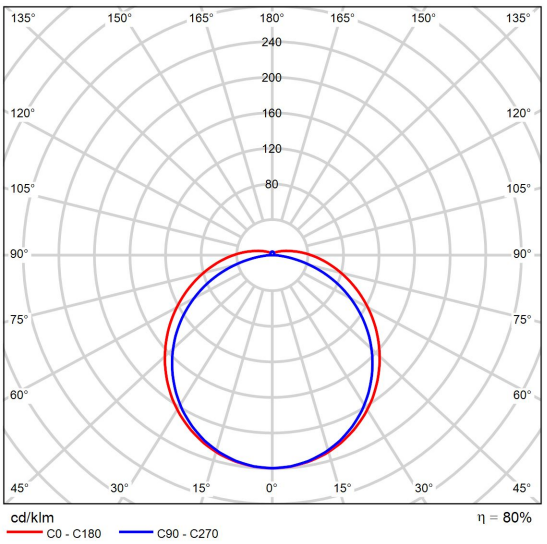
CDL polare

BEGA GENIUS Deckenleuchte-Tiefstrahler 50479.1K3 für den Innenbereich.
Asymmetrische Lichtstärkeverteilung. Hocheffiziente und verlustarme Lichtverteilung
durch Hybrid-Optik aus Reflektor und optischer Linse.
LED, 19,5 W Leuchten-Anschlussleistung, Leuchten-Lichtstrom 2134 lm,
Halbstreuwinkel 59°, Farbtemperatur 3000 K. Farbwiedergabeindex (CRI) > 90.
Mit austauschbarem BEGA LED-Modul mit Übertemperaturschutz und einer
Lebenserwartung von mindestens 50.000 Betriebsstunden.
20-jährige Nachliefergarantie auf das LED-Modul und die Verschleißteile.
Mit LED-Netzteil, DALI steuerbar, 220-240 V, 0/50-60 Hz. Schutzklasse I.
Leuchtengehäuse aus Aluminiumguss, Oberfläche Einbrennlackierung weiß.
Optische Silikonlinse. Reflektoroberfläche aus eloxiertem Reinstaluminium.
Sicherheitsglas. Abschlussring Oberfläche Chrom. Abmessungen Ø 180 x 150 mm.

Scheda tecnica prodotto

Indelague – Roxo Lighting - TTP 50 L1180 TOP 830 LO

Articolo No.	90472L120
P	21.4 W
$P_{Illuminazione\ di\ emergenza}$	21.4 W
$\Phi_{Lampadina}$	3768 lm
$\Phi_{Lampada}$	3026 lm
$\Phi_{Illuminazione\ di\ emergenza}$	3026 lm
η	80.32 %
Efficienza	141.3 lm/W
CCT	3000 K
CRI	80
ELF	100 %



CDL polare

γ	C0°	C90°	C0°- C360°
0°-180°	902.81	902.81	902.81
60°-90°	476.28	395.26	476.28

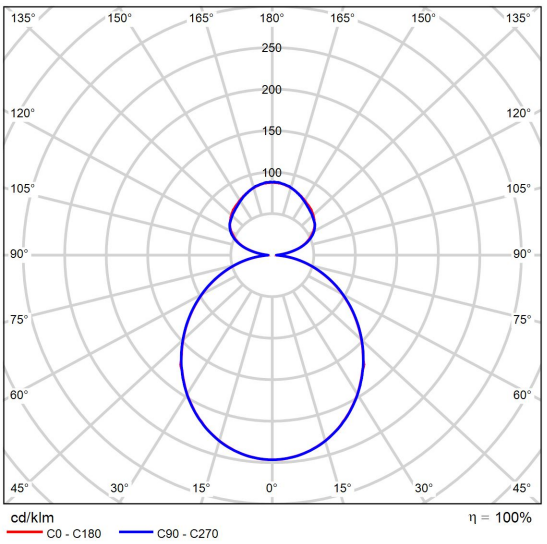
Tabella valori di abbagliamento [cd]

DIALux

Scheda tecnica prodotto

Intra Lighting - Lona CDI 600 h100 SOP 2600+1100 lm 39 W 930 DALI IP20 white

Articolo No.	18276113F21
P	39.4 W
$P_{Illuminazione\ di\ emergenza}$	39.4 W
$\Phi_{Lampadina}$	3720 lm
$\Phi_{Lampada}$	3720 lm
$\Phi_{Illuminazione\ di\ emergenza}$	3720 lm
η	99.99 %
Efficienza	94.4 lm/W
CCT	3000 K
CRI	90
ELF	100 %



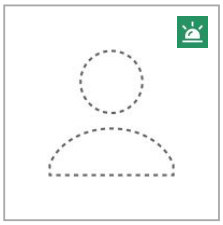
CDL polare

γ	C0°	C90°	C0°- C360°
0°-180°	916.83	916.83	916.83
60°-90°	371.80	374.05	374.05

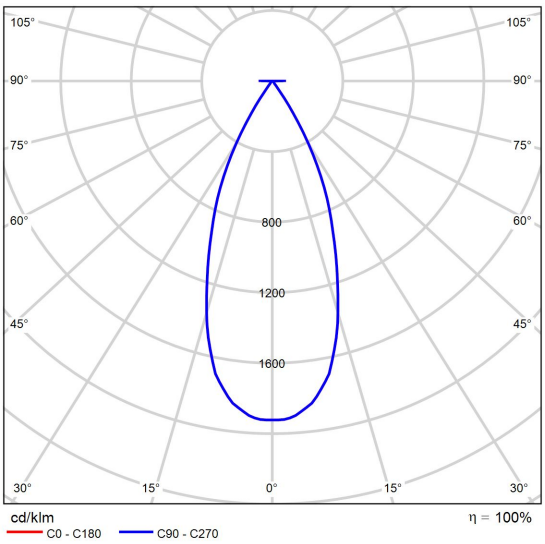
Tabella valori di abbagliamento [cd]

Scheda tecnica prodotto

KarizmaLuce - DEA AMATA M_930_40_gold matt reflector



P	14.0 W
$P_{Illuminazione\ di\ emergenza}$	14.0 W
$\Phi_{Lampadina}$	1185 lm
$\Phi_{Lampada}$	1187 lm
$\Phi_{Illuminazione\ di\ emergenza}$	1187 lm
η	100.20 %
Efficienza	84.8 lm/W
CCT	3124 K
CRI	100
ELF	100 %



CDL polare

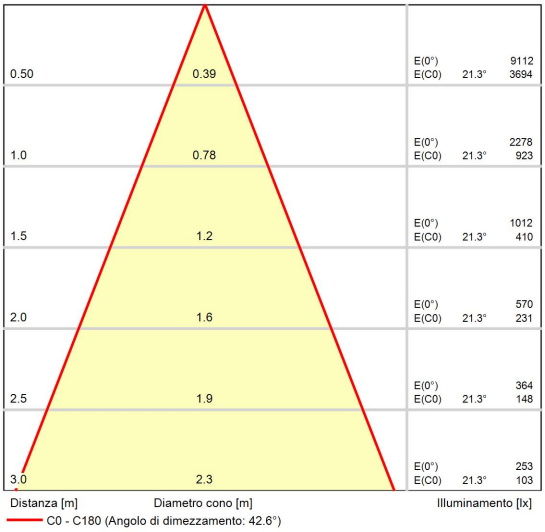


Diagramma conico

DIALux

Scheda tecnica prodotto

KarizmaLuce - DEA AMATA M_930_40_gold matt reflector

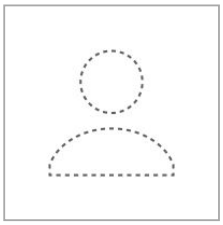
γ	C0°	C90°	C0°- C360°
0°-180°	2278.01	2278.01	2278.01
60°-90°	1.33	1.33	1.33

Tabella valori di abbagliamento [cd]

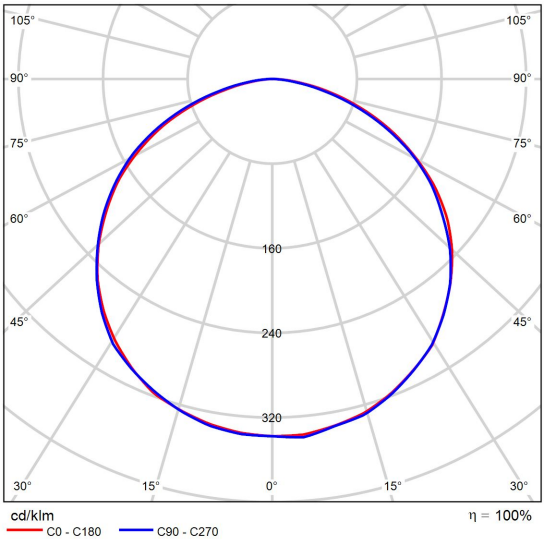
DIALux

Scheda tecnica prodotto

Tridonic Jennersdorf GmbH - Luminaire name



Articolo No.	1
P	1.0 W
$\Phi_{Lampadina}$	179 lm
$\Phi_{Lampada}$	179 lm
η	100.01 %
Efficienza	179.0 lm/W
CCT	3000 K
CRI	80

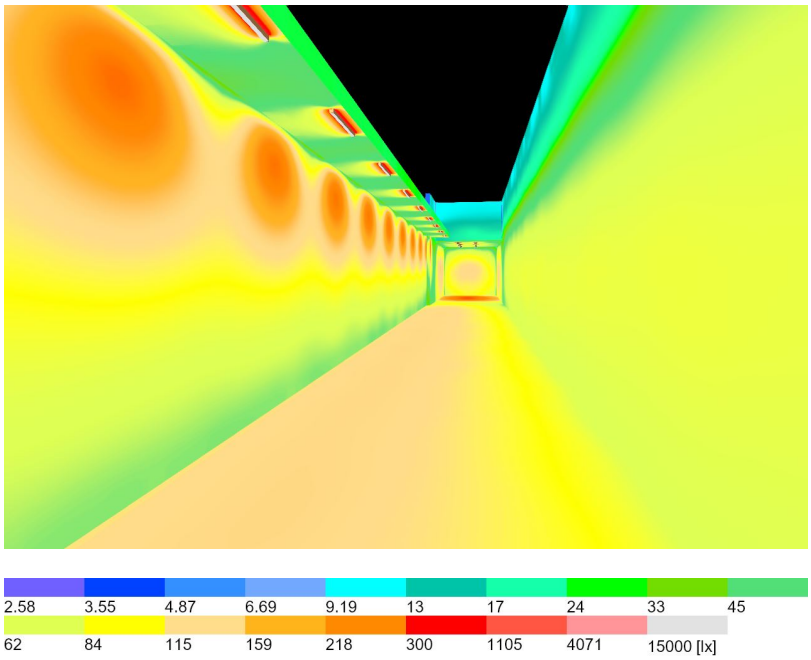


CDL polare

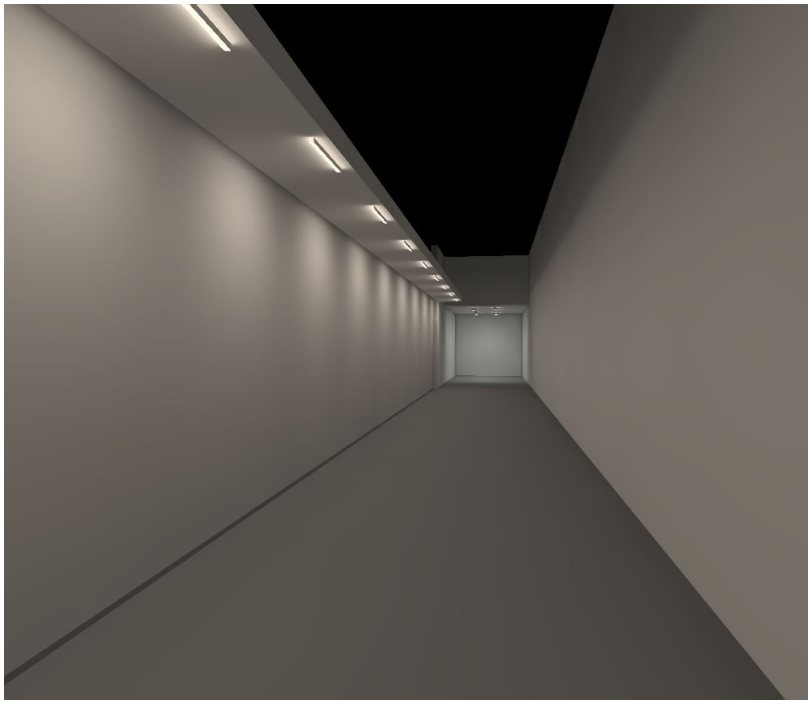
Area 1

Immagini

Corridoio degli Artisti

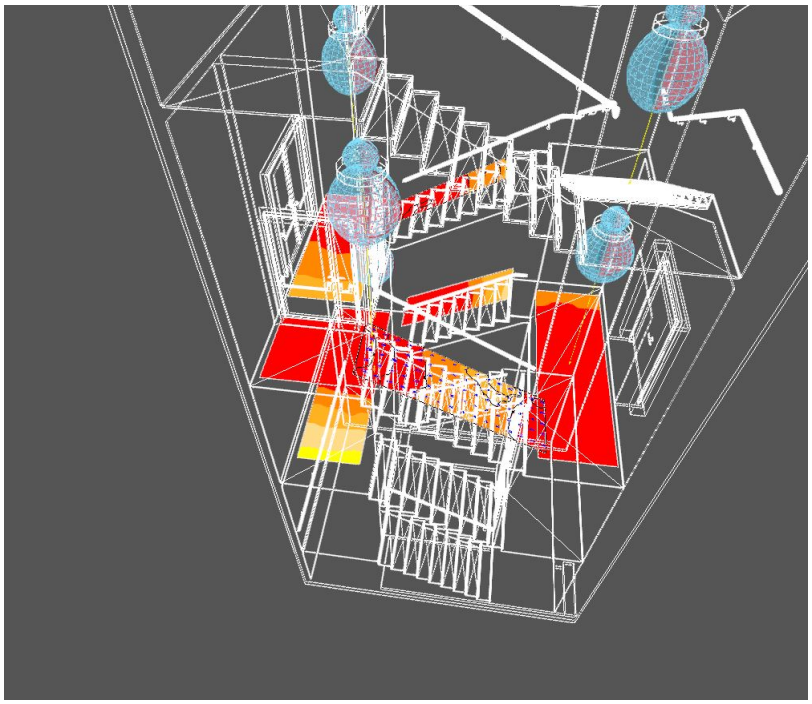


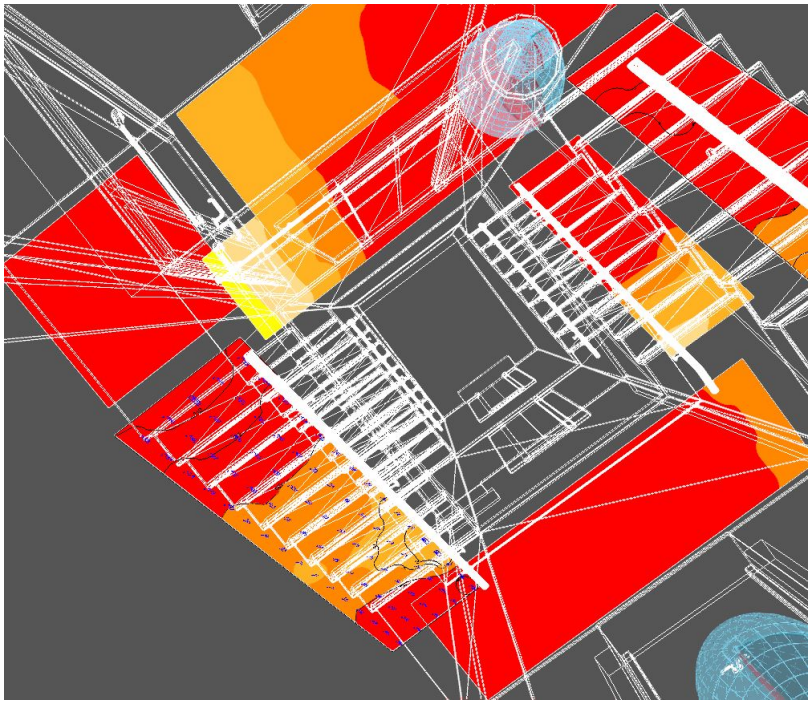
Corridoio degli Artisti



Immagini

Vano scale

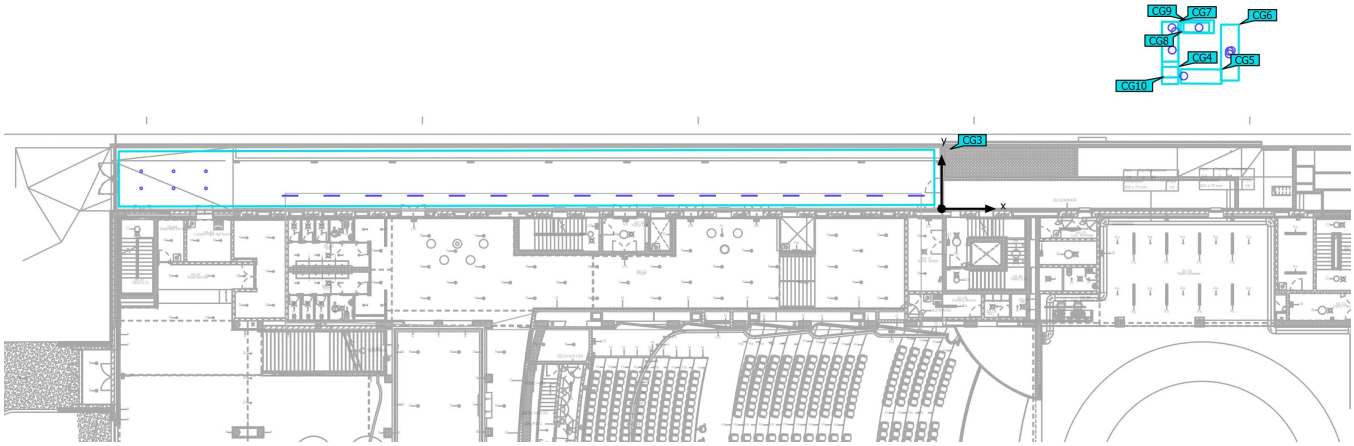




DIALux

Area 1 (Scena luce 1)

Oggetti di calcolo



Area 1 (Scena luce 1)

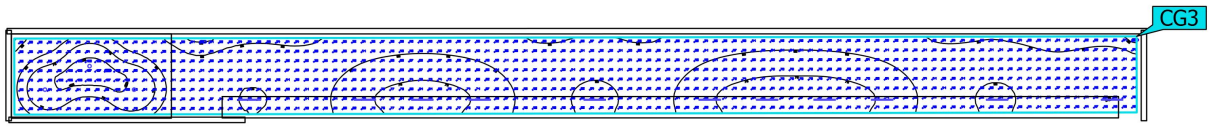
Oggetti di calcolo

Superfici di calcolo

Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Percorso esterno - "Ingresso degli Artisti" Illuminamento perpendicolare (adattivo) Altezza: 0.050 m	115 lx	50.6 lx	276 lx	0.44	0.18	CG3
Superficie di calcolo 7 Illuminamento perpendicolare Altezza: 0.500 m	121 lx	103 lx	140 lx	0.85	0.74	CG4
Vano scale superficie di calcolo 3 Illuminamento perpendicolare Altezza: 0.000 m	101 lx	64.8 lx	148 lx	0.64	0.44	CG5
Vano scale superficie di calcolo 4 Illuminamento perpendicolare Altezza: -1.300 m	116 lx	89.7 lx	132 lx	0.77	0.68	CG6
Vano scale superficie di calcolo 2 Illuminamento perpendicolare Altezza: 0.600 m	102 lx	65.7 lx	127 lx	0.64	0.52	CG7
Vano scale superficie di calcolo 1 Illuminamento perpendicolare Altezza: 1.183 m	104 lx	73.6 lx	121 lx	0.71	0.61	CG8
Vano scale superficie di calcolo 5 Illuminamento perpendicolare Altezza: -1.600 m	136 lx	55.6 lx	230 lx	0.41	0.24	CG9
Vano scale superficie di calcolo 6 Illuminamento perpendicolare Altezza: -2.635 m	122 lx	41.7 lx	195 lx	0.34	0.21	CG10

Area 1 (Scena illuminazione di emergenza)

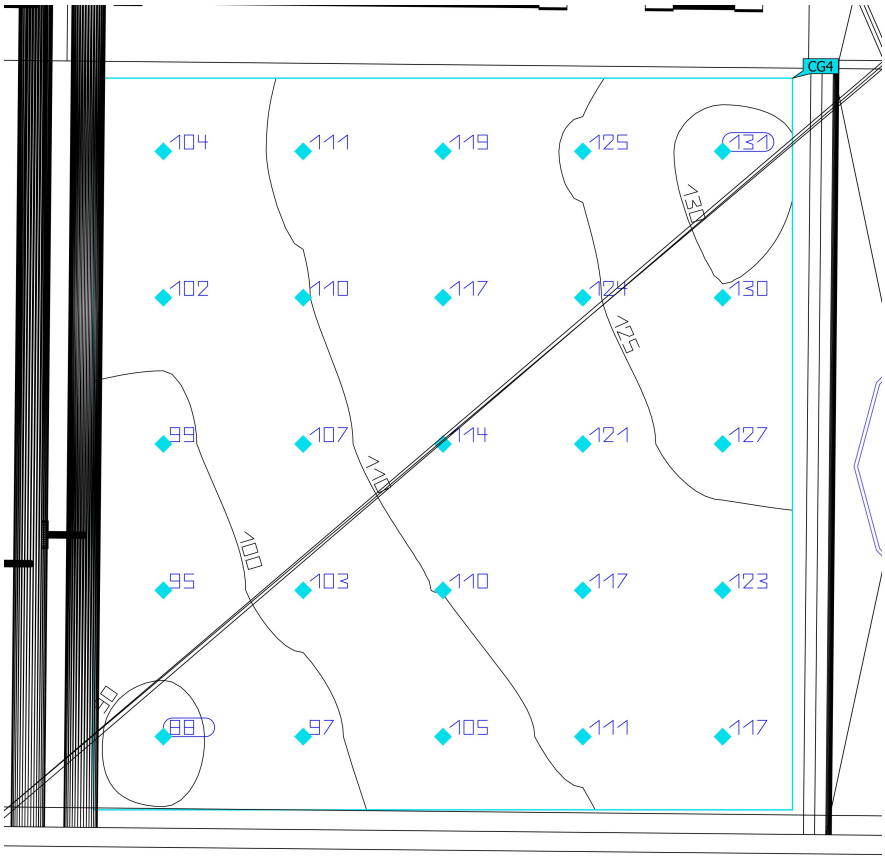
Percorso esterno - "Ingresso degli Artisti"



Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Percorso esterno - "Ingresso degli Artisti" Illuminamento perpendicolare (adattivo) Altezza: 0.050 m	50.9 lx	18.5 lx	110 lx	0.36	0.17	CG3

Area 1 (Scena illuminazione di emergenza)

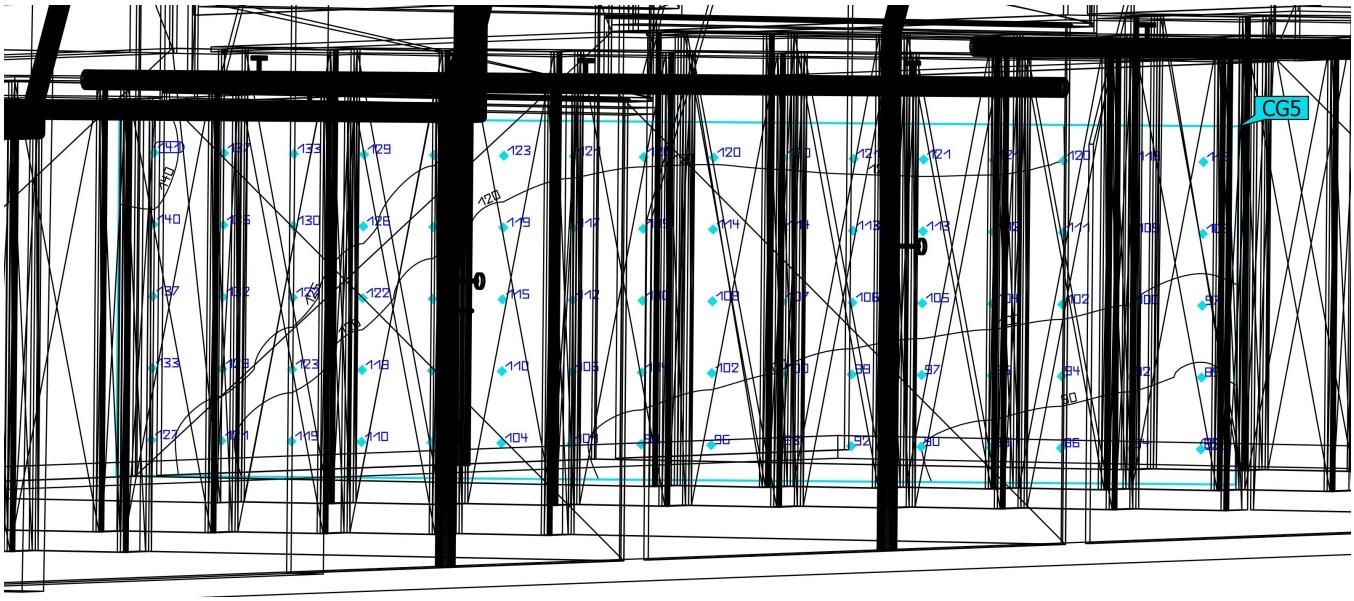
Superficie di calcolo 7



Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie di calcolo 7 Illuminamento perpendicolare Altezza: 0.500 m	112 lx	88.1 lx	131 lx	0.79	0.67	CG4

Area 1 (Scena illuminazione di emergenza)

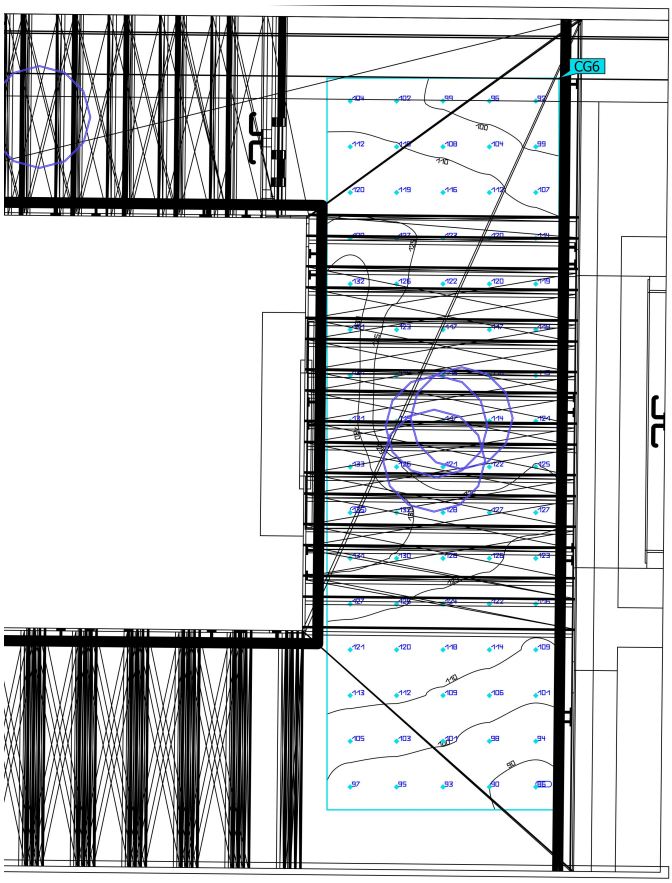
Vano scale superficie di calcolo 3



Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Vano scale superficie di calcolo 3 Illuminamento perpendicolare Altezza: 0.000 m	112 lx	82.0 lx	141 lx	0.73	0.58	CG5

Area 1 (Scena illuminazione di emergenza)

Vano scale superficie di calcolo 4

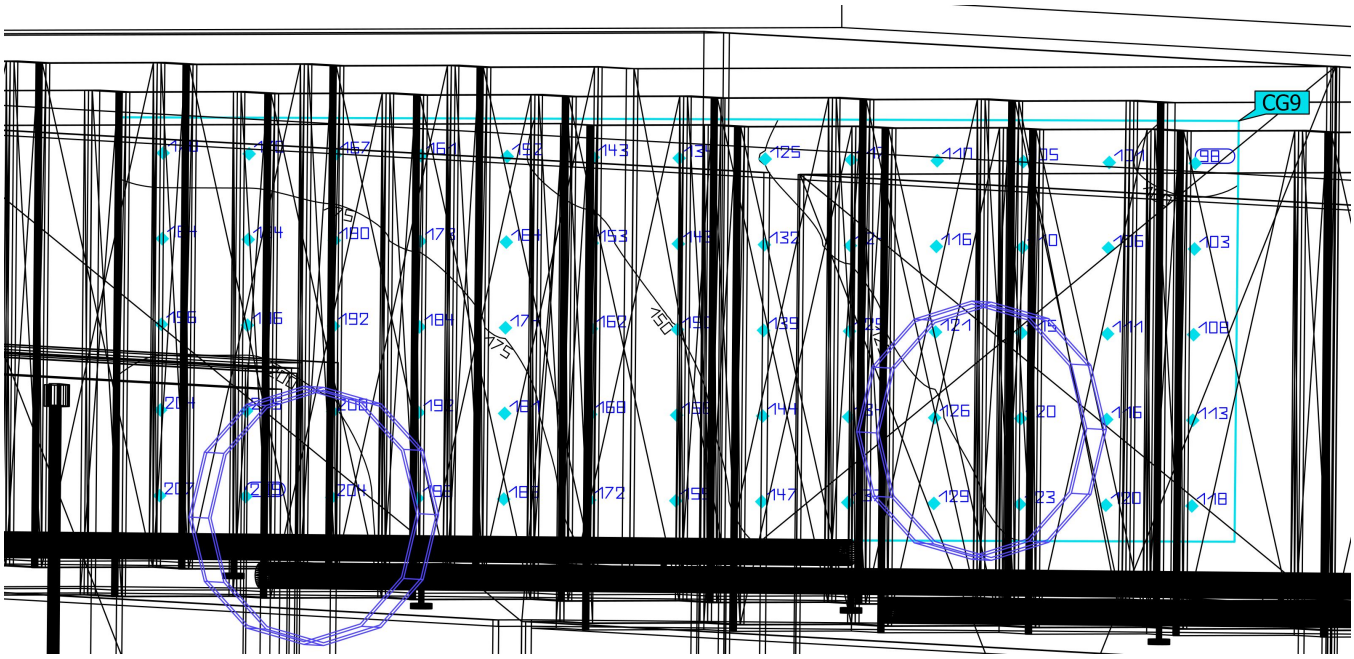


Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Vano scale superficie di calcolo 4 Illuminamento perpendicolare Altezza: -1.300 m	116 lx	86.4 lx	135 lx	0.74	0.64	CG6

DIALux

Area 1 (Scena illuminazione di emergenza)

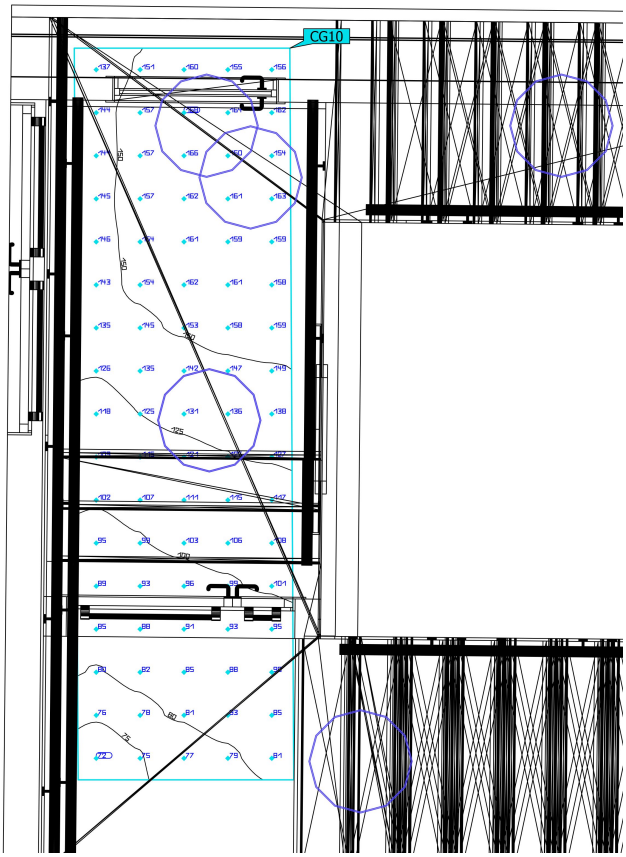
Vano scale superficie di calcolo 5



Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Vano scale superficie di calcolo 5 Illuminamento perpendicolare Altezza: -1.600 m	150 lx	98.2 lx	209 lx	0.65	0.47	CG9

Area 1 (Scena illuminazione di emergenza)

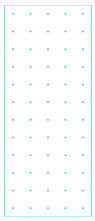
Vano scale superficie di calcolo 6

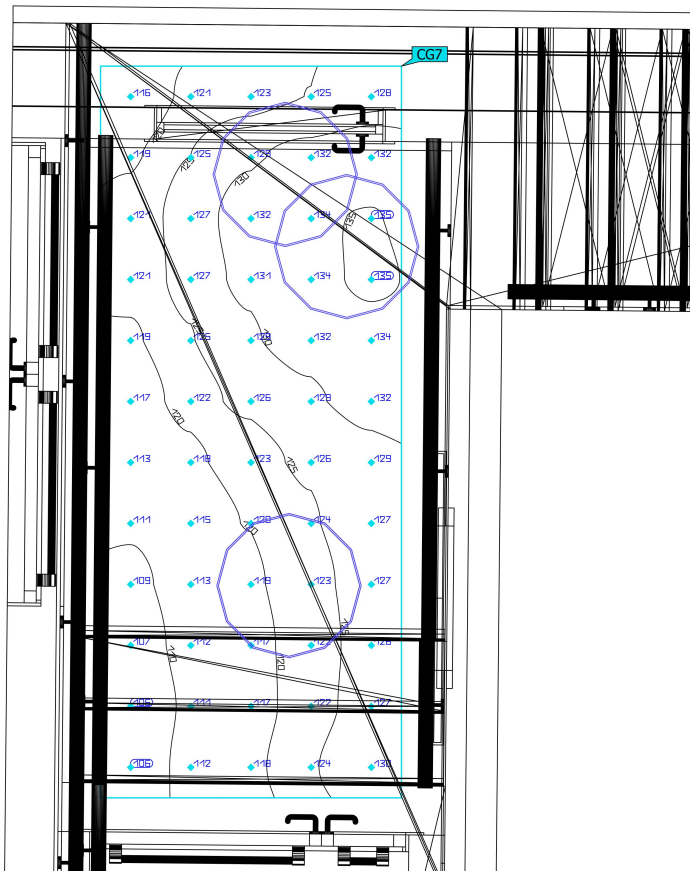


Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Vano scale superficie di calcolo 6 Illuminamento perpendicolare Altezza: -2.635 m	124 lx	72.1 lx	168 lx	0.58	0.43	CG10

Area 1 (Scena illuminazione di emergenza)

Vano scale superficie di calcolo 2



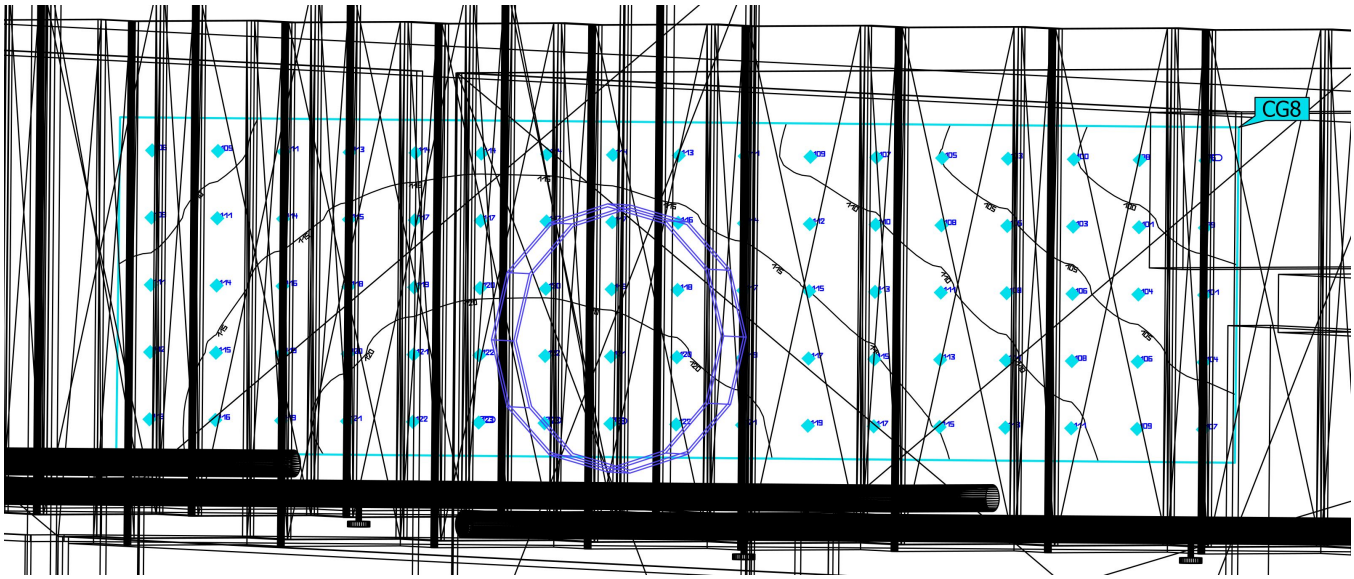


Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Vano scale superficie di calcolo 2 Illuminamento perpendicolare Altezza: 0.600 m	123 lx	106 lx	135 lx	0.86	0.79	CG7

DIALux

Area 1 (Scena illuminazione di emergenza)

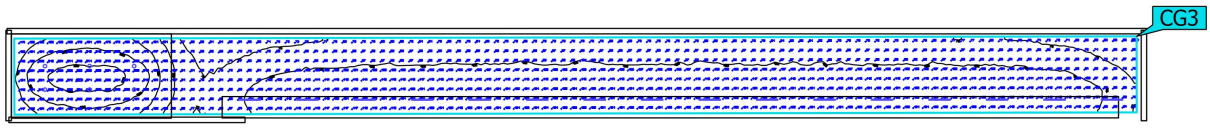
Vano scale superficie di calcolo 1



Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Vano scale superficie di calcolo 1 Illuminamento perpendicolare Altezza: 1.183 m	113 lx	95.6 lx	123 lx	0.85	0.78	CG8

Area 1 (Scena luce 1)

Percorso esterno - "Ingresso degli Artisti"

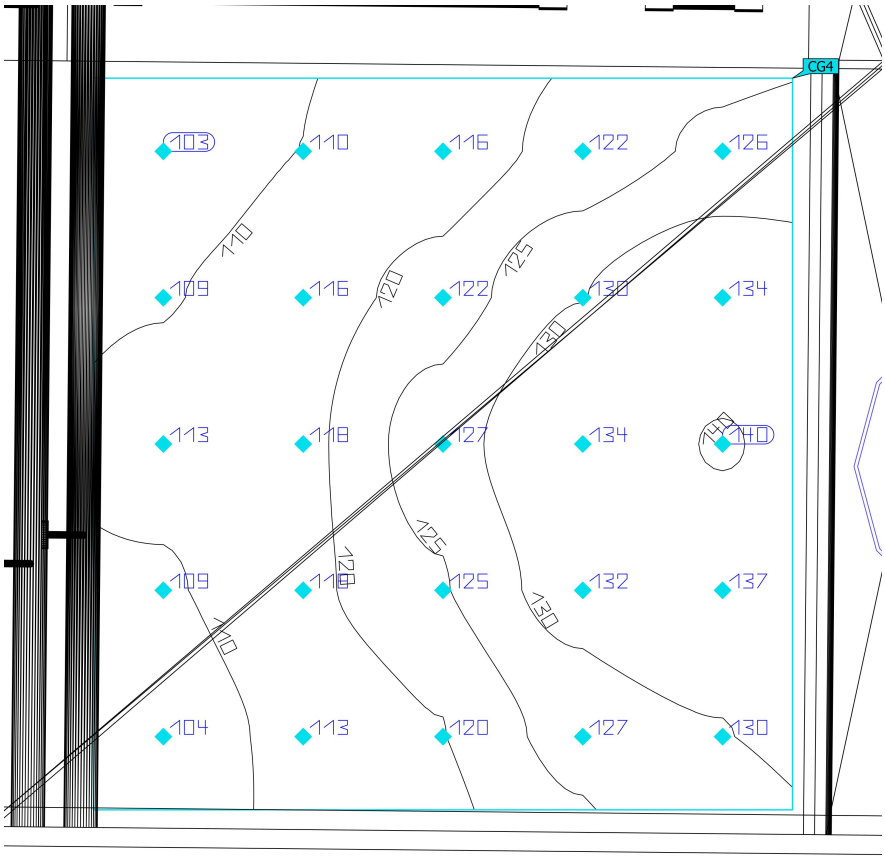


Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Percorso esterno - "Ingresso degli Artisti" Illuminamento perpendicolare (adattivo) Altezza: 0.050 m	115 lx	50.6 lx	276 lx	0.44	0.18	CG3

DIALux

Area 1 (Scena luce 1)

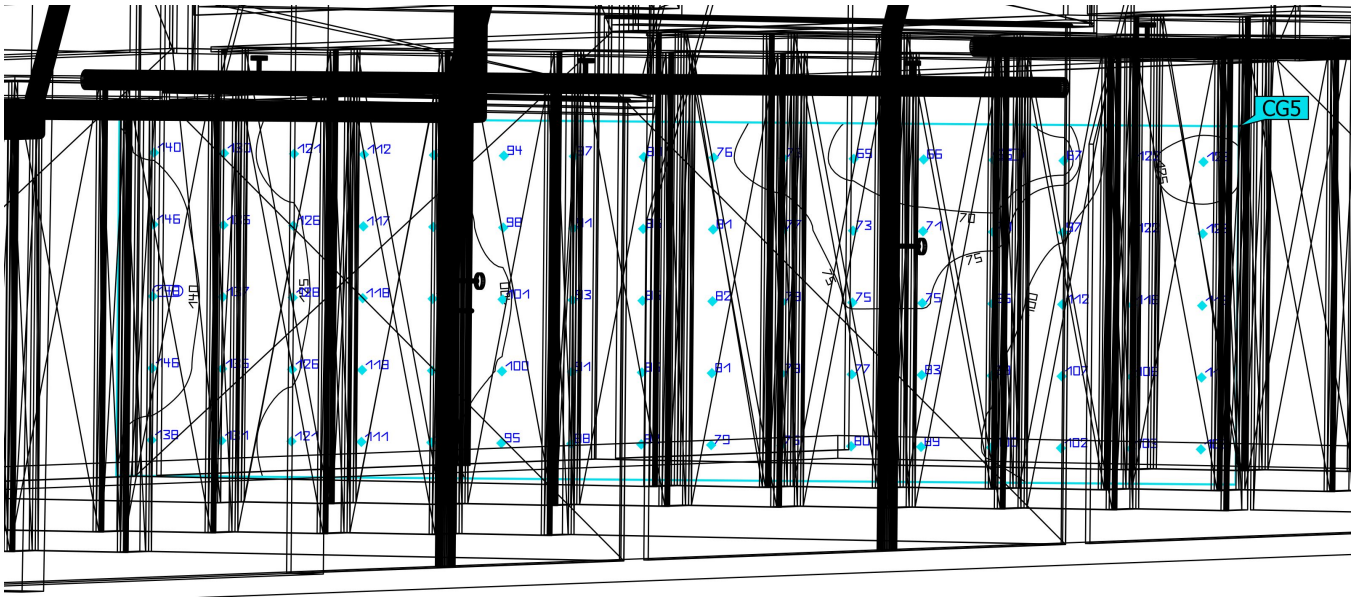
Superficie di calcolo 7



Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie di calcolo 7 Illuminamento perpendicolare Altezza: 0.500 m	121 lx	103 lx	140 lx	0.85	0.74	CG4

Area 1 (Scena luce 1)

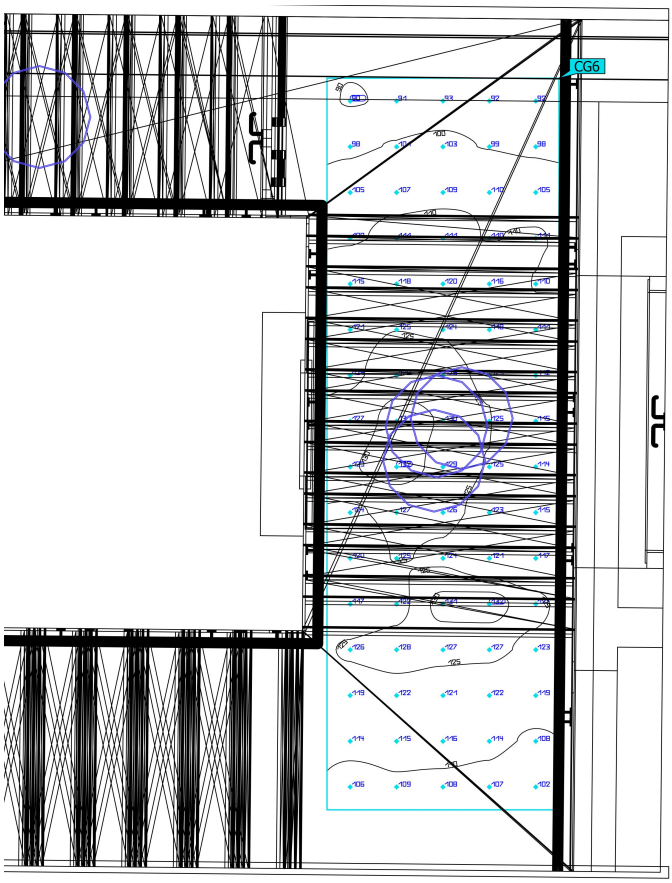
Vano scale superficie di calcolo 3



Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Vano scale superficie di calcolo 3 Illuminamento perpendicolare Altezza: 0.000 m	101 lx	64.8 lx	148 lx	0.64	0.44	CG5

Area 1 (Scena luce 1)

Vano scale superficie di calcolo 4

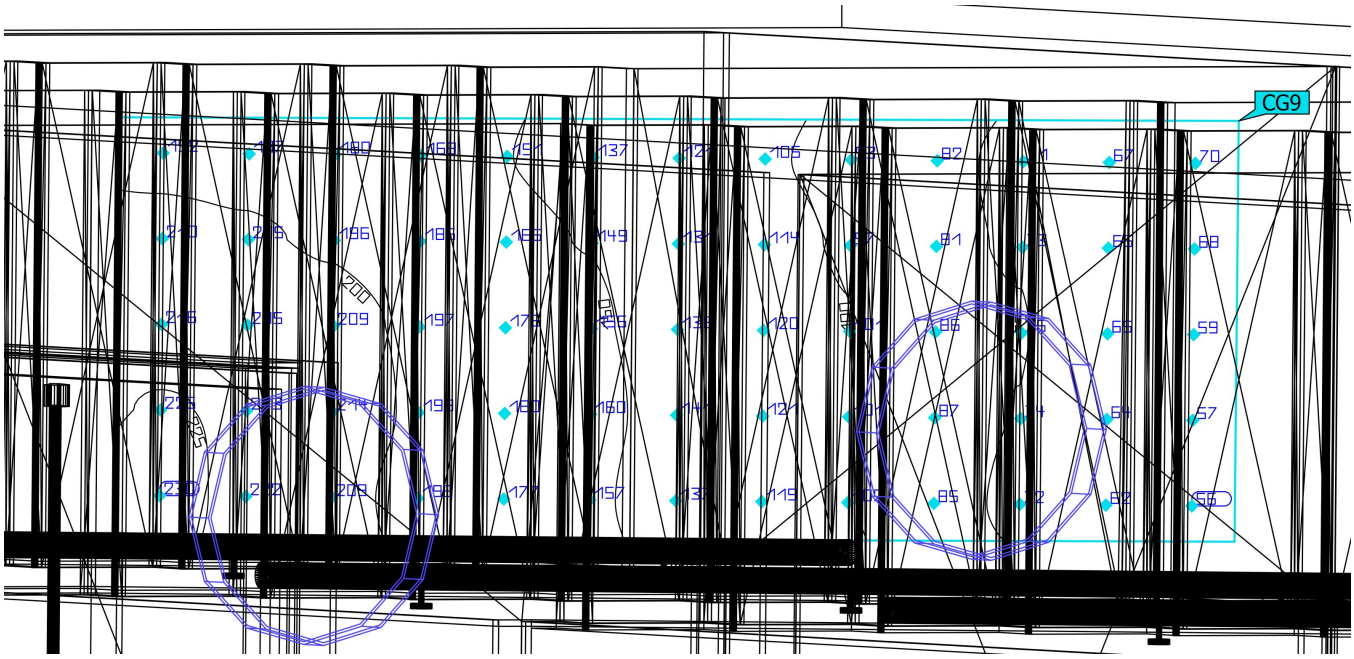


Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Vano scale superficie di calcolo 4 Illuminamento perpendicolare Altezza: -1.300 m	116 lx	89.7 lx	132 lx	0.77	0.68	CG6

DIALux

Area 1 (Scena luce 1)

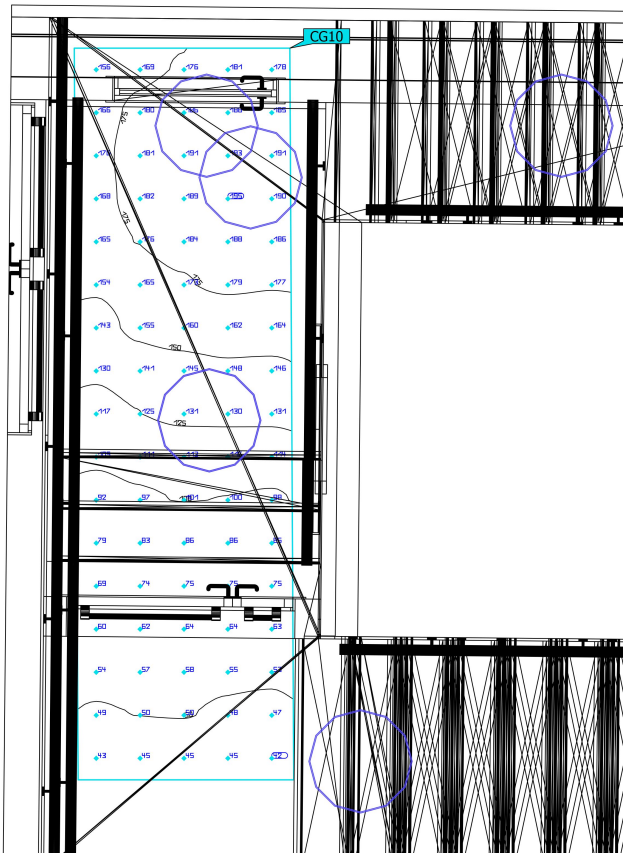
Vano scale superficie di calcolo 5



Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Vano scale superficie di calcolo 5 Illuminamento perpendicolare Altezza: -1.600 m	136 lx	55.6 lx	230 lx	0.41	0.24	CG9

Area 1 (Scena luce 1)

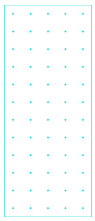
Vano scale superficie di calcolo 6

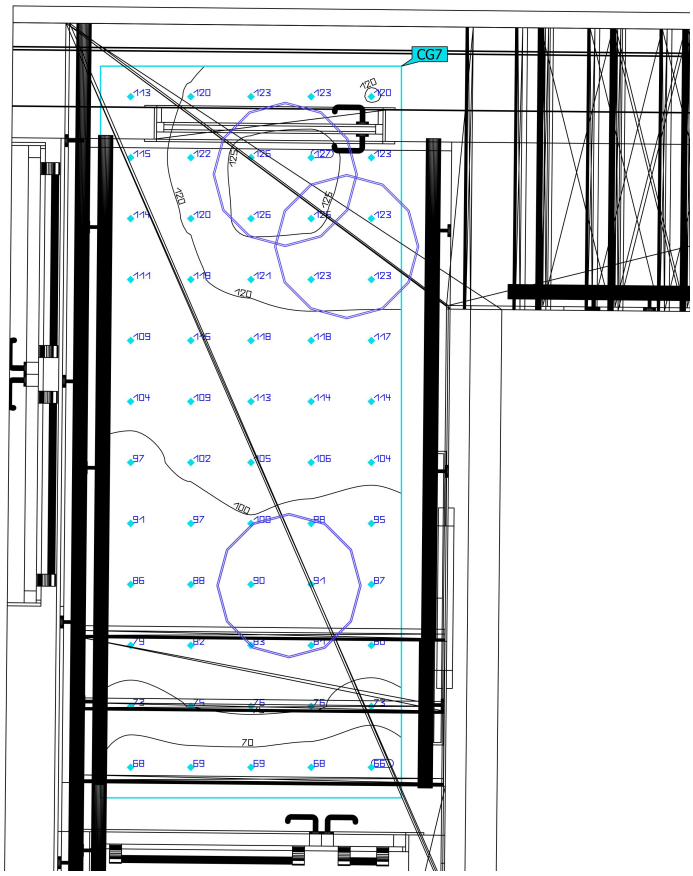


Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Vano scale superficie di calcolo 6 Illuminamento perpendicolare Altezza: -2.635 m	122 lx	41.7 lx	195 lx	0.34	0.21	CG10

Area 1 (Scena luce 1)

Vano scale superficie di calcolo 2

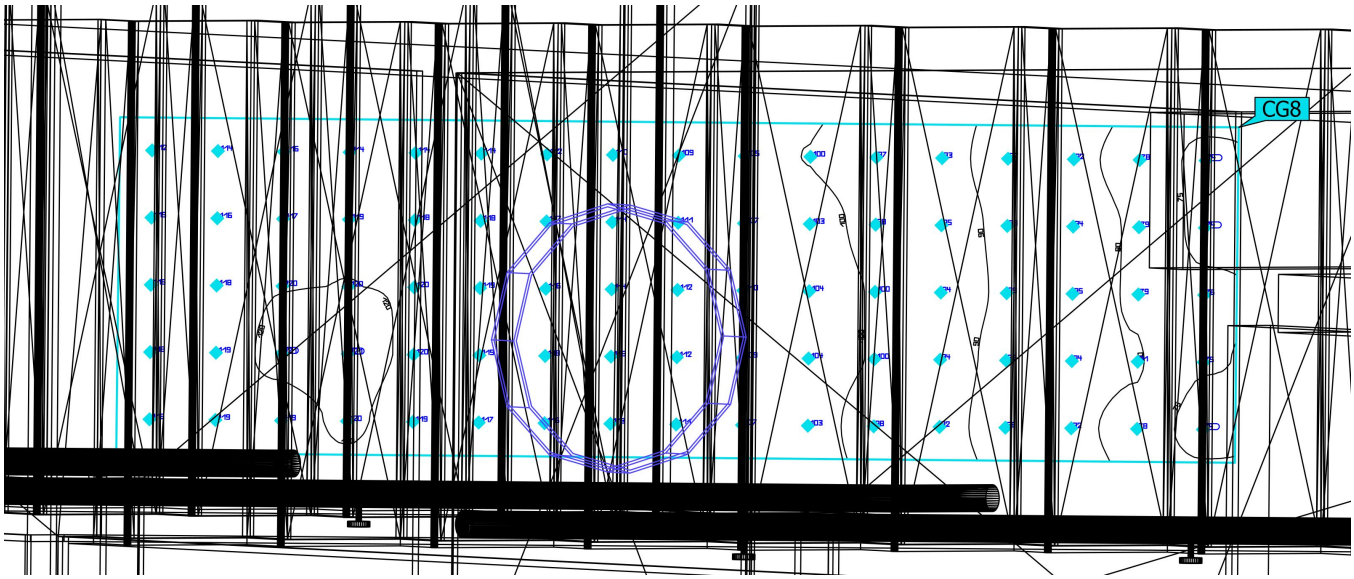




Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Vano scale superficie di calcolo 2 Illuminamento perpendicolare Altezza: 0.600 m	102 lx	65.7 lx	127 lx	0.64	0.52	CG7

Area 1 (Scena luce 1)

Vano scale superficie di calcolo 1

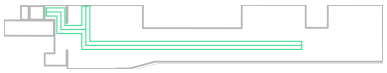


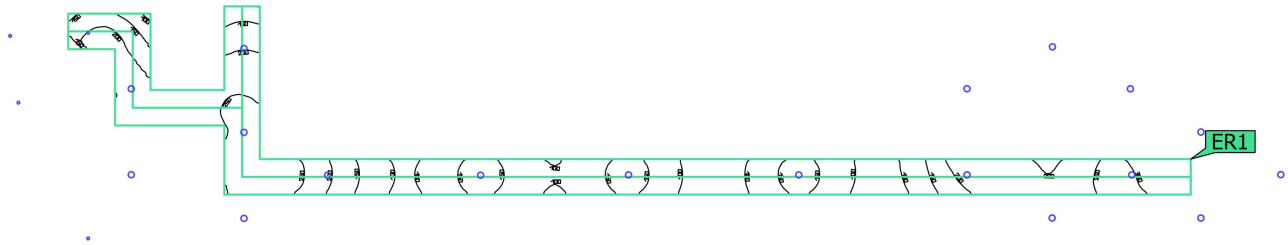
Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Vano scale superficie di calcolo 1 Illuminamento perpendicolare Altezza: 1.183 m	104 lx	73.6 lx	121 lx	0.71	0.61	CG8

DIALux

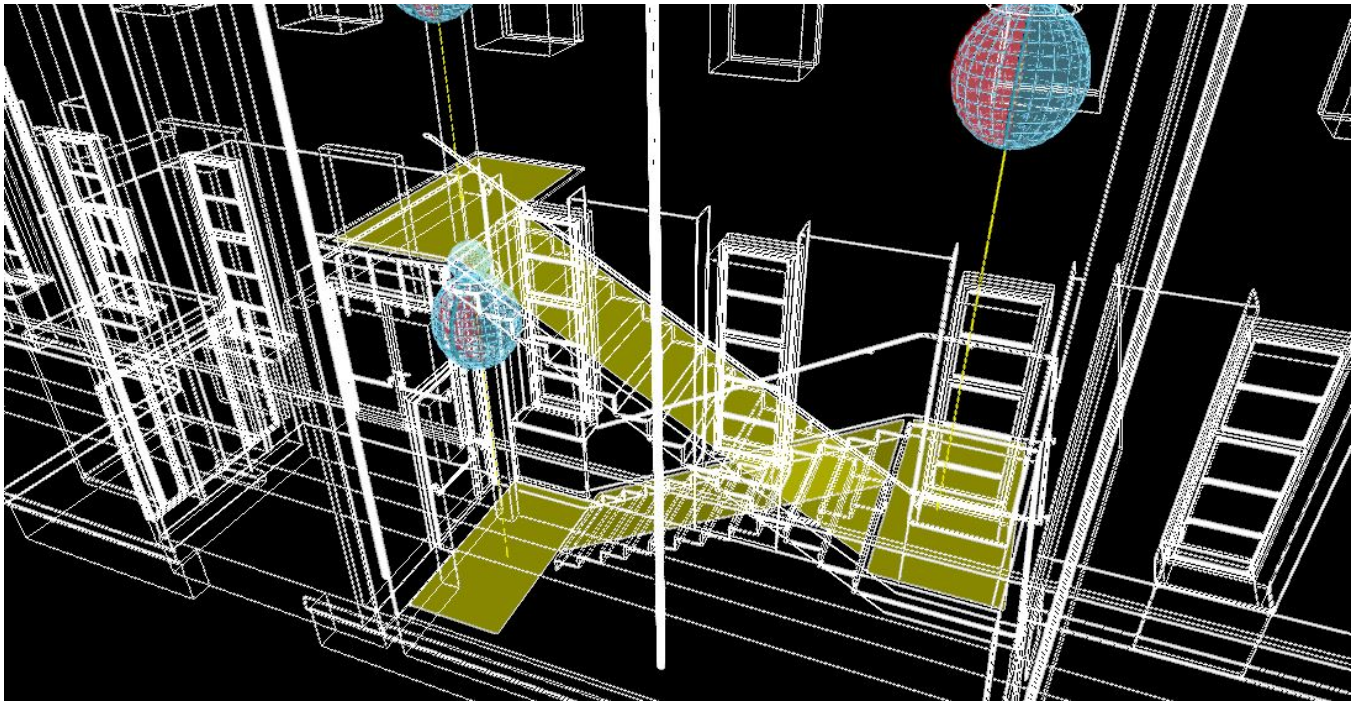
Edificio 1 · Piano 1 (Scena illuminazione di emergenza)

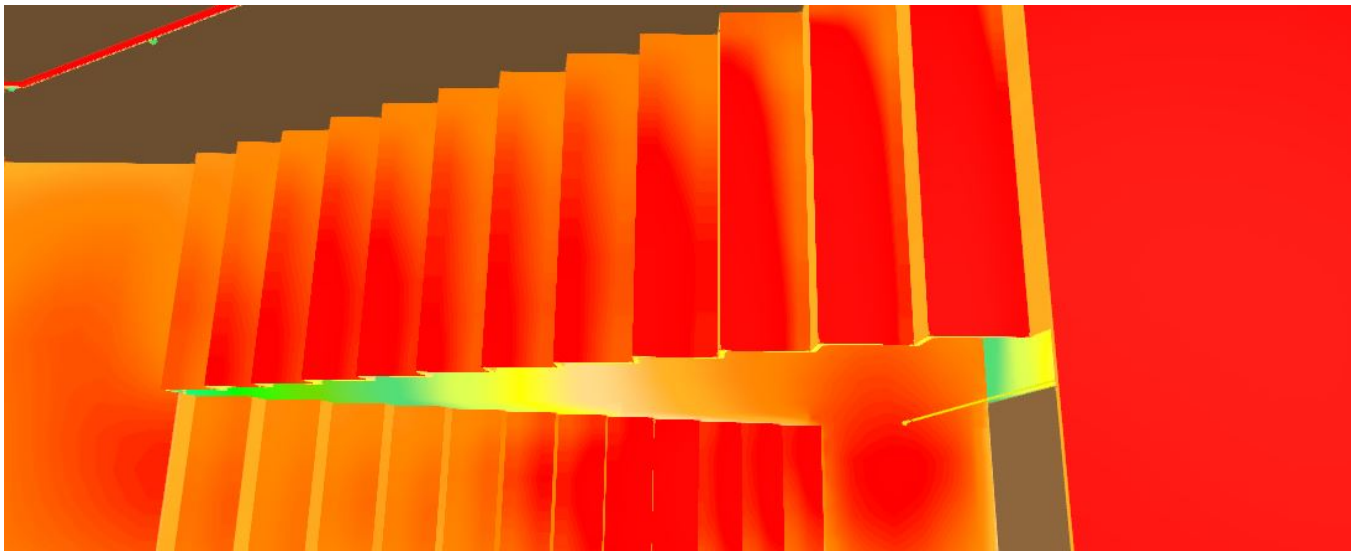
Via di esodo 2

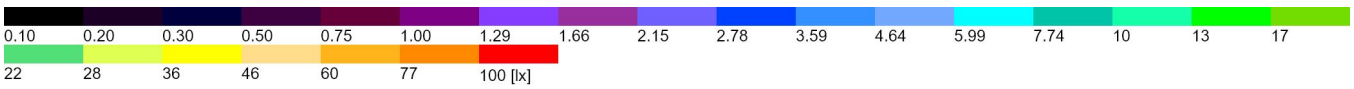




Proprietà	$E_{min.}$ Area centrale	E_{max} Area centrale	$E_{min.}$ Linea mediana	E_{max} Linea mediana	U_d	Indice
Via di esodo 2 Illuminamento perpendicolare (adattivo) Altezza: 1.650 m	57.4 lx	348 lx	62.0 lx	342 lx	0.18	ER1



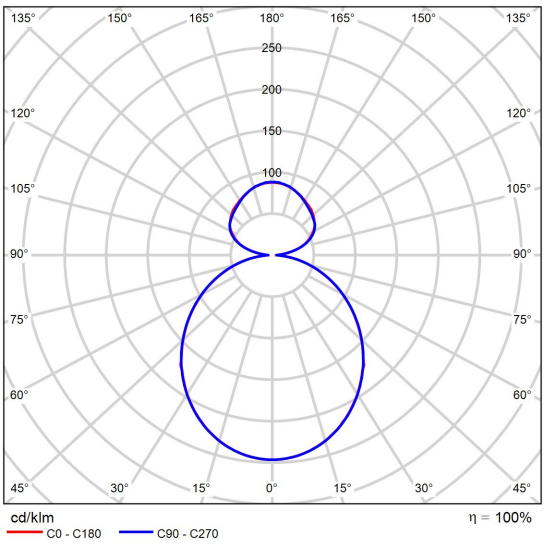



0.10 0.20 0.30 0.50 0.75 1.00 1.29 1.66 2.15 2.78 3.59 4.64 5.99 7.74 10 13 17
22 28 36 46 60 77 100 [lx]

Scheda tecnica prodotto

Intra Lighting - Lona CDI 600 h100 SOP 2700+1300 lm 35 W 830 DALI EM 1h IP20 white

Articolo No.	18276213121
P	35.1 W
$P_{Illuminazione\ di\ emergenza}$	35.1 W
$\Phi_{Lampadina}$	4021 lm
$\Phi_{Lampada}$	4021 lm
$\Phi_{Illuminazione\ di\ emergenza}$	4021 lm
η	99.99 %
Efficienza	114.7 lm/W
CCT	3000 K
CRI	80
ELF	100 %



CDL polare

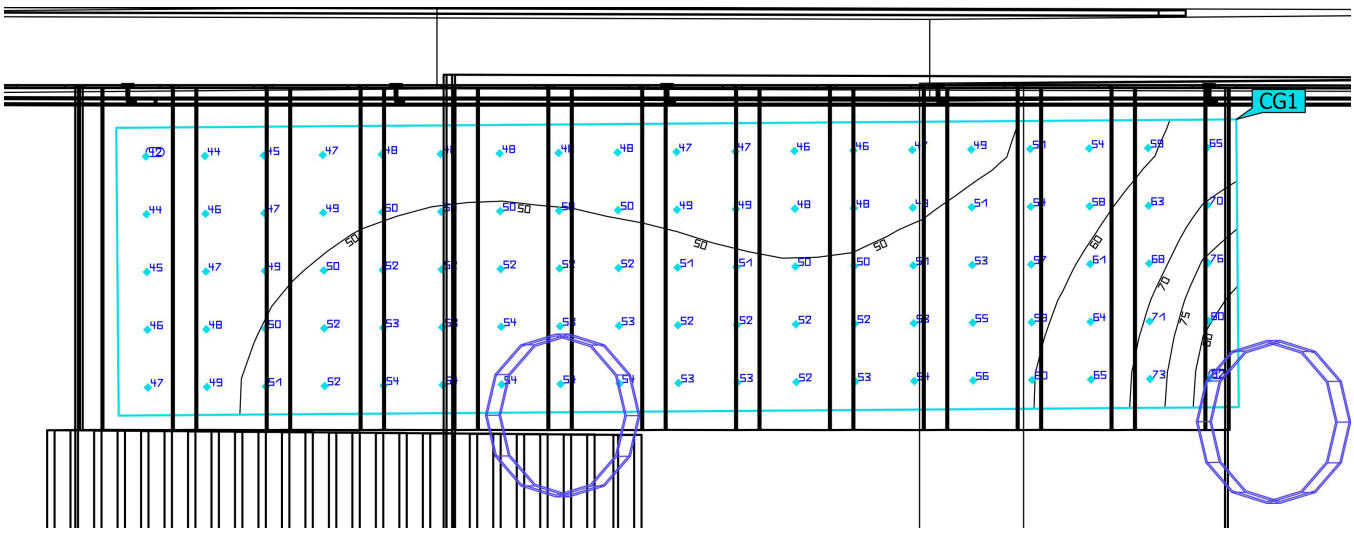
γ	C0°	C90°	C0°- C360°
0°-180°	991.02	991.02	991.02
60°-90°	401.88	404.32	404.32

Tabella valori di abbagliamento [cd]

DIALux

(Scena illuminazione di emergenza)

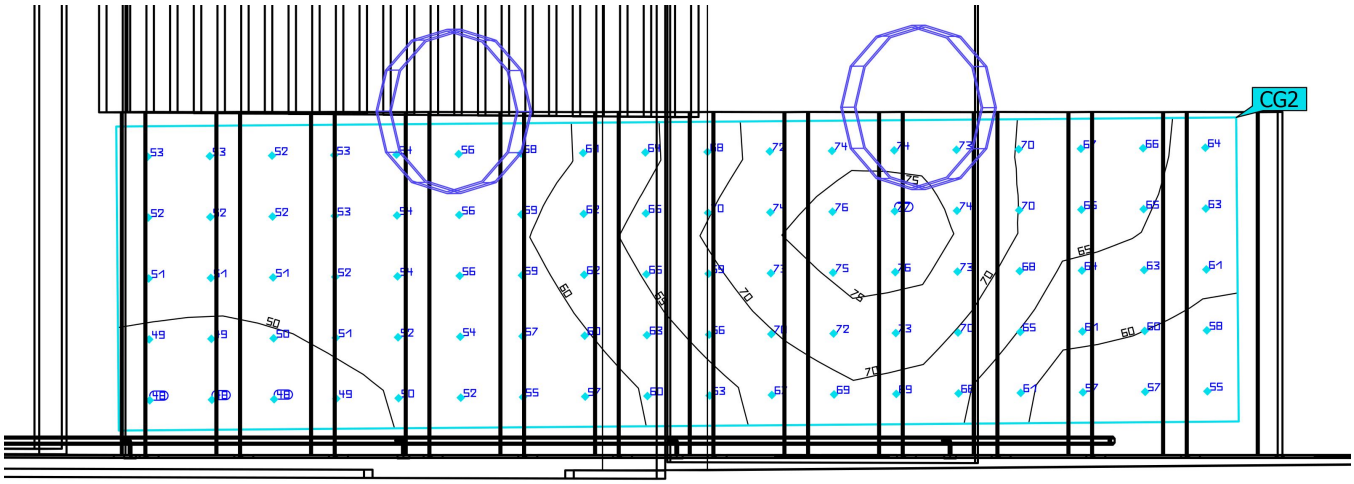
Superficie di calcolo 31



Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie di calcolo 31 Illuminamento perpendicolare (adattivo) Altezza: 3.538 m	53.1 lx	41.7 lx	83.8 lx	0.79	0.50	CG1

(Scena illuminazione di emergenza)

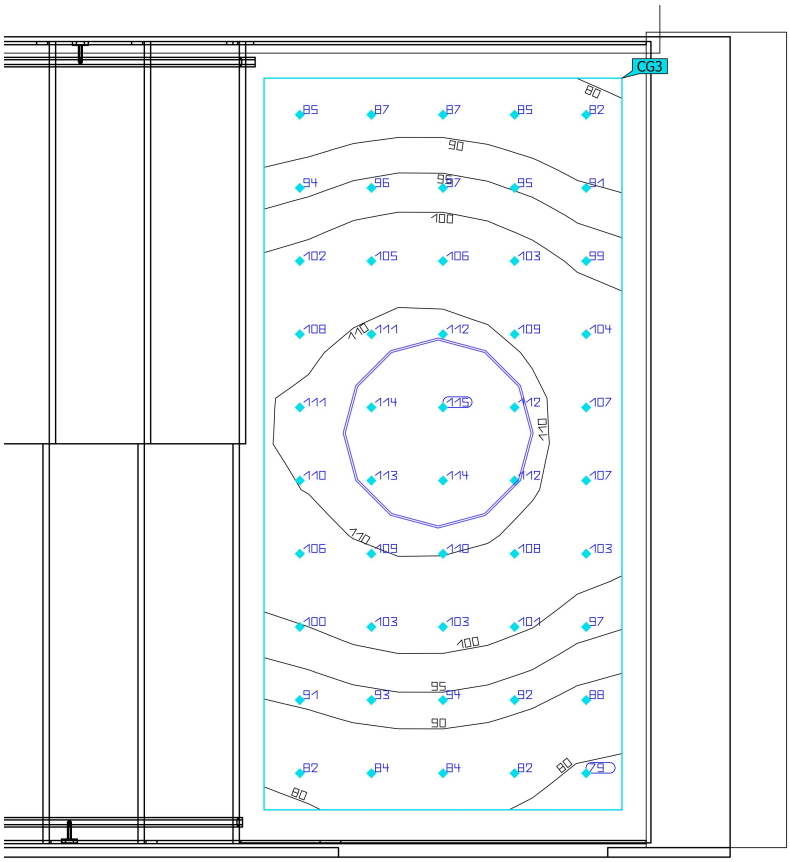
Superficie di calcolo 32



Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie di calcolo 32 Illuminamento perpendicolare (adattivo) Altezza: 1.320 m	61.2 lx	47.6 lx	76.9 lx	0.78	0.62	CG2

(Scena illuminazione di emergenza)

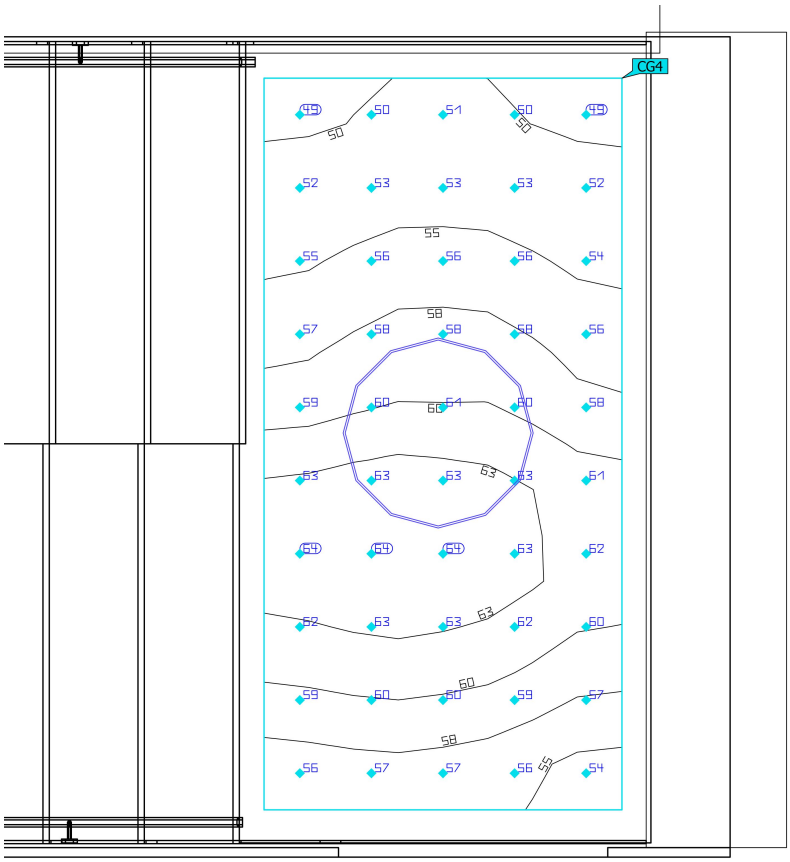
Superficie di calcolo 33



Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie di calcolo 33 Illuminamento perpendicolare (adattivo) Altezza: 4.500 m	99.6 lx	77.2 lx	115 lx	0.78	0.67	CG3

(Scena illuminazione di emergenza)

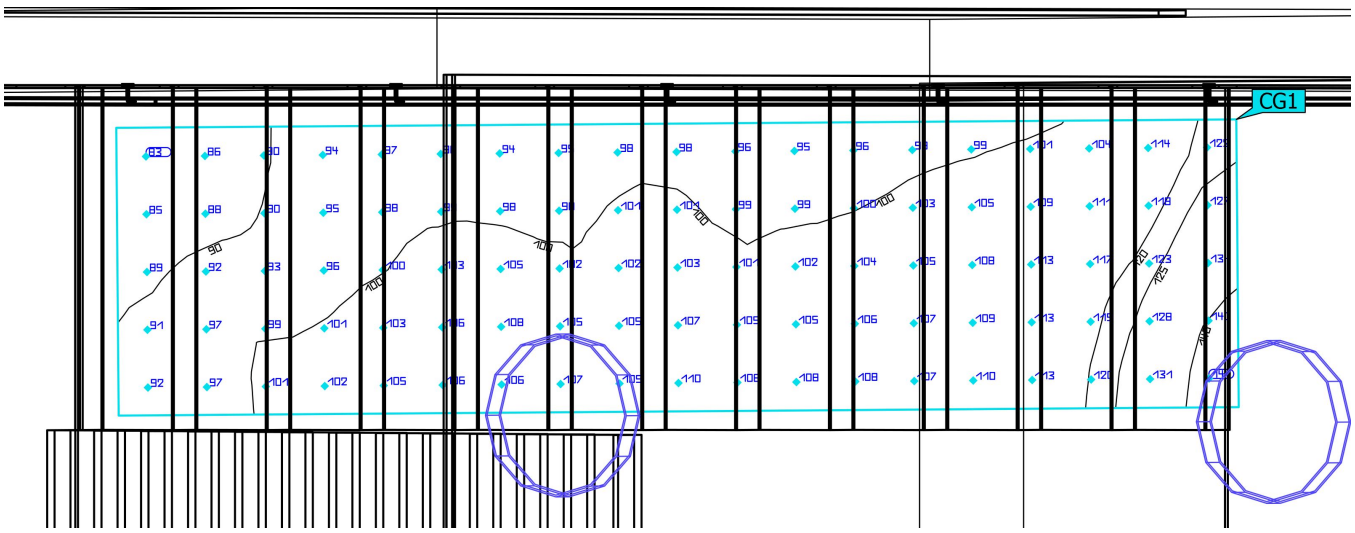
Superficie di calcolo 34



Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie di calcolo 34 Illuminamento perpendicolare (adattivo) Altezza: 0.100 m	57.8 lx	48.8 lx	64.3 lx	0.84	0.76	CG4

(Scena luce 1)

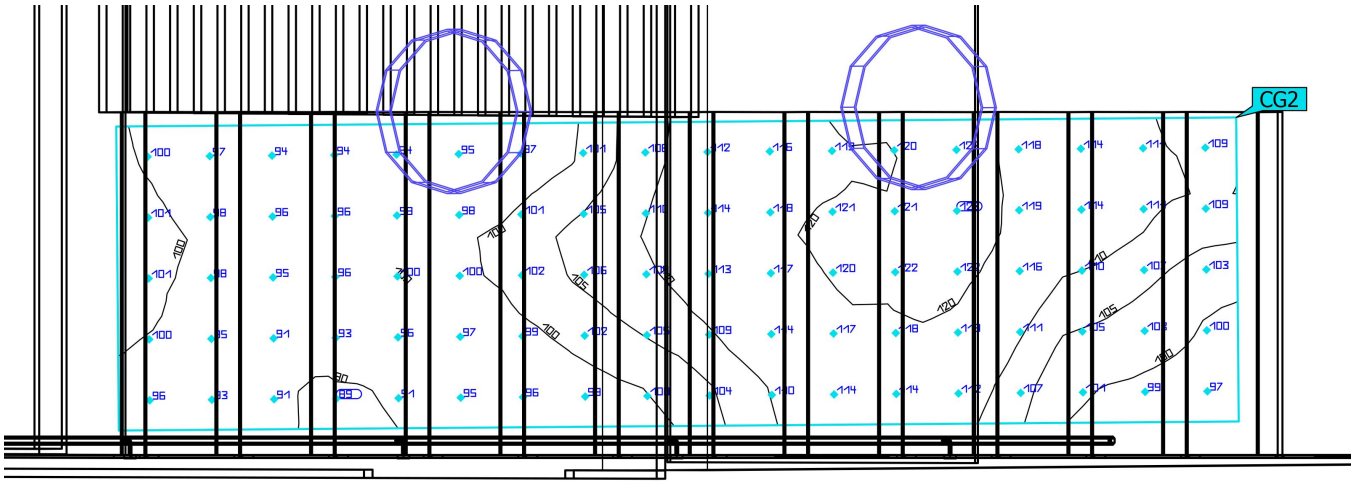
Superficie di calcolo 31



Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie di calcolo 31 Illuminamento perpendicolare (adattivo) Altezza: 3.538 m	104 lx	83.0 lx	146 lx	0.80	0.57	CG1

(Scena luce 1)

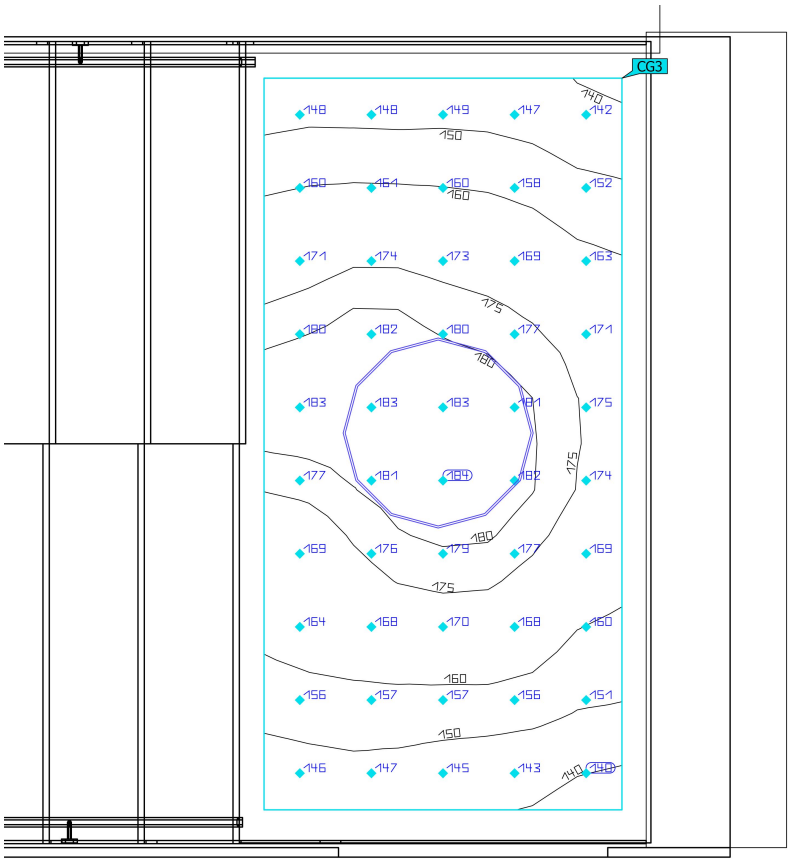
Superficie di calcolo 32



Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie di calcolo 32 Illuminamento perpendicolare (adattivo) Altezza: 1.320 m	105 lx	89.2 lx	123 lx	0.85	0.73	CG2

(Scena luce 1)

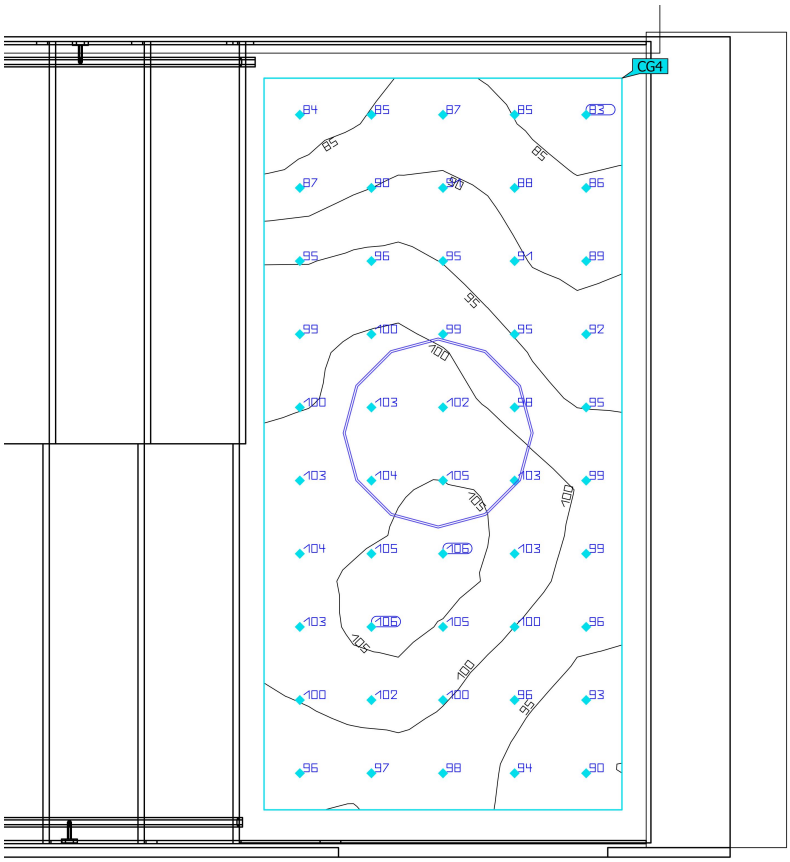
Superficie di calcolo 33



Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie di calcolo 33 Illuminamento perpendicolare (adattivo) Altezza: 4.500 m	165 lx	138 lx	184 lx	0.84	0.75	CG3

(Scena luce 1)

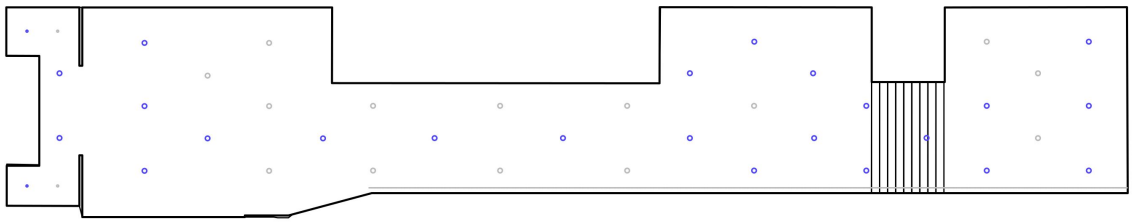
Superficie di calcolo 34

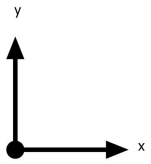


Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie di calcolo 34 Illuminamento perpendicolare (adattivo) Altezza: 0.100 m	96.4 lx	82.5 lx	106 lx	0.86	0.78	CG4

Edificio 1 · Piano 1 · zona comune (Scena illuminazione di emergenza)

Riepilogo





Base	252.72 m²
Coefficienti di riflessione	Soffitto: 70.0 %, Pareti: 50.0 %, Pavimento: 20.0 %
Fattore di diminuzione	0.80 (fisso)

Altezza libera	5.450 m – 5.700 m
Altezza di montaggio	5.450 m – 5.535 m

Edificio 1 · Piano 1 · zona comune (Scena illuminazione di emergenza)

Riepilogo

Risultati

	Unità	Calcolato	Nominale	OK	Indice
Area	Valore di allacciamento specifico	1.89 W/m²	–		

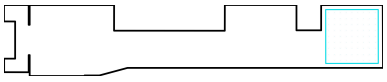
Lista lampade

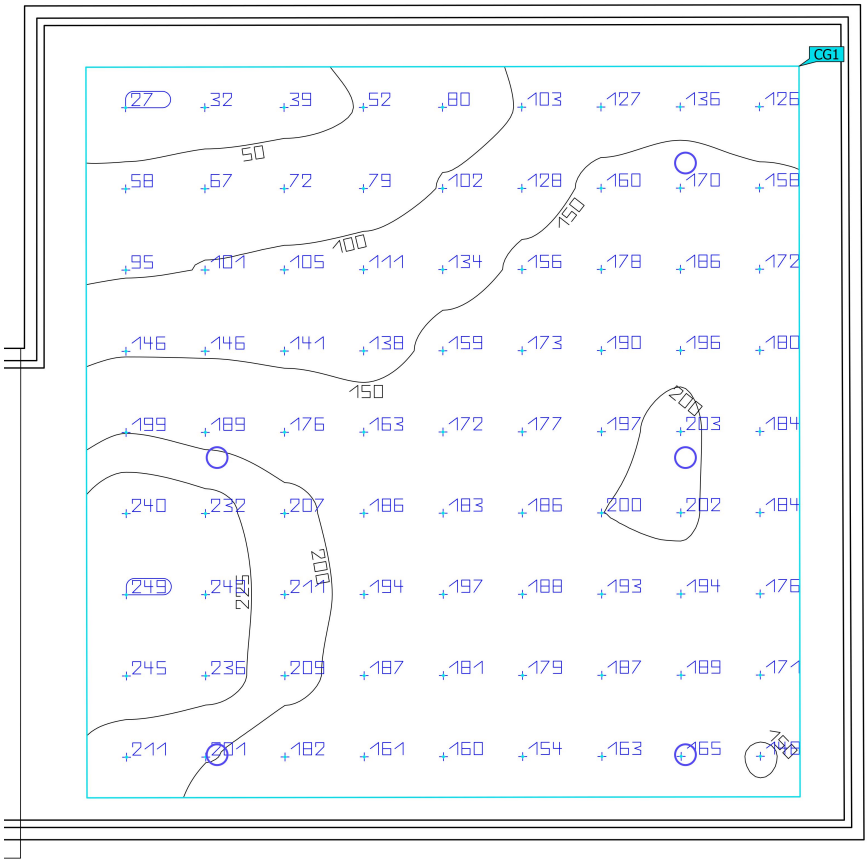
Pz.	Produttore	Articolo No.	Nome articolo	P	Φ	Efficienza
23	BEGA	50479.1K3	LED 19,5W	19.5 W	2135 lm	109.5 lm/W
				19.5 W	2135 lm (100 %)	–
2	KarizmaLuce		DEA AMATA M_930_40_gold matt reflector	14.0 W	1187 lm	84.8 lm/W
				14.0 W	1187 lm (100 %)	–

DIALux

Edificio 1 · Piano 1 · zona comune (Scena illuminazione di emergenza)

Locale ribassato



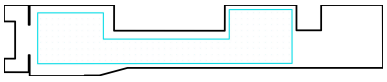


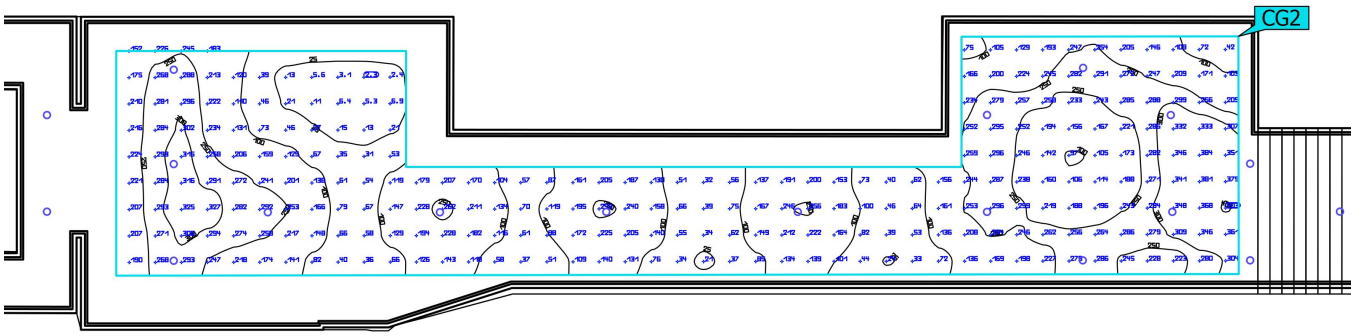
Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Locale ribassato Illuminamento perpendicolare Altezza: 1.000 m	161 lx	26.9 lx	249 lx	0.17	0.11	CG1

DIALux

Edificio 1 · Piano 1 · zona comune (Scena illuminazione di emergenza)

superficie di calcolo 2

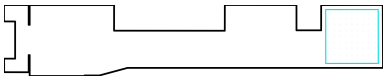


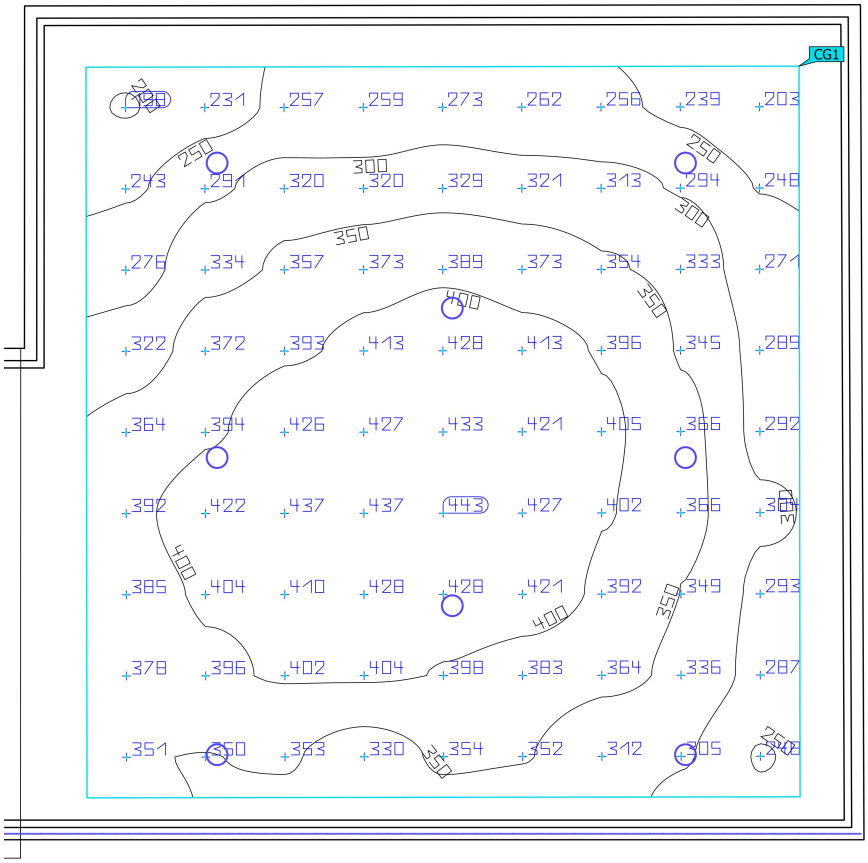


Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
superficie di calcolo 2 Illuminamento perpendicolare Altezza: 2.450 m	178 lx	2.33 lx	403 lx	0.013	0.006	CG2

Edificio 1 · Piano 1 · zona comune (Scena luce 1)

Locale ribassato

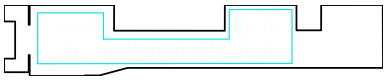


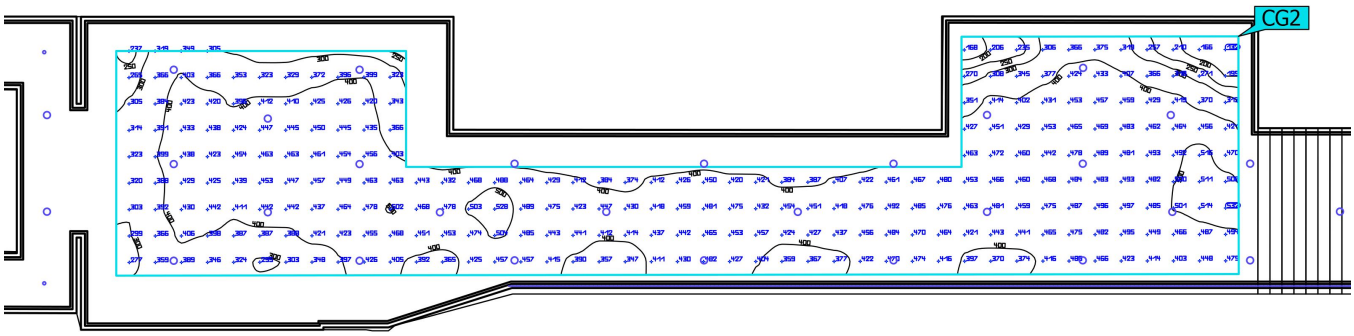


Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Locale ribassato Illuminamento perpendicolare Altezza: 1.000 m	349 lx	198 lx	443 lx	0.57	0.45	CG1

Edificio 1 · Piano 1 · zona comune (Scena luce 1)

superficie di calcolo 2

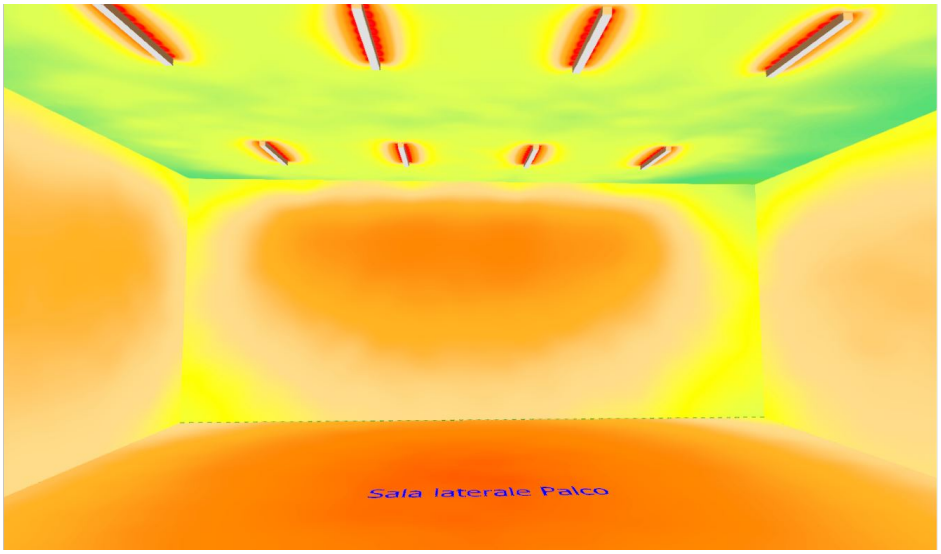


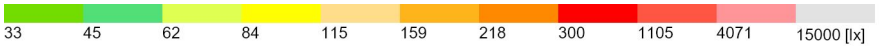


Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
superficie di calcolo 2 Illuminamento perpendicolare Altezza: 2.450 m	419 lx	132 lx	532 lx	0.32	0.25	CG2

DIALux

Immagini

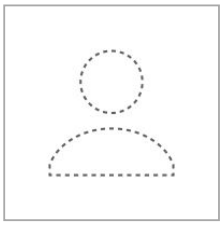




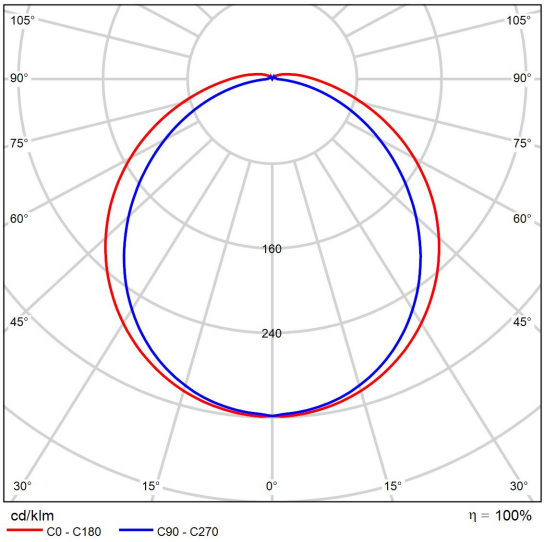
DIALux

Scheda tecnica prodotto

PXF Lighting - Fibra IV LED 1175x98 33W 5395lm 830 OPAL



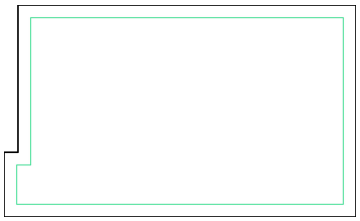
Articolo No.	HB006.2211.830.XXXX
P	33.0 W
$\Phi_{Lampadina}$	5395 lm
$\Phi_{Lampada}$	5395 lm
η	100.01 %
Efficienza	163.5 lm/W
CCT	3000 K
CRI	80

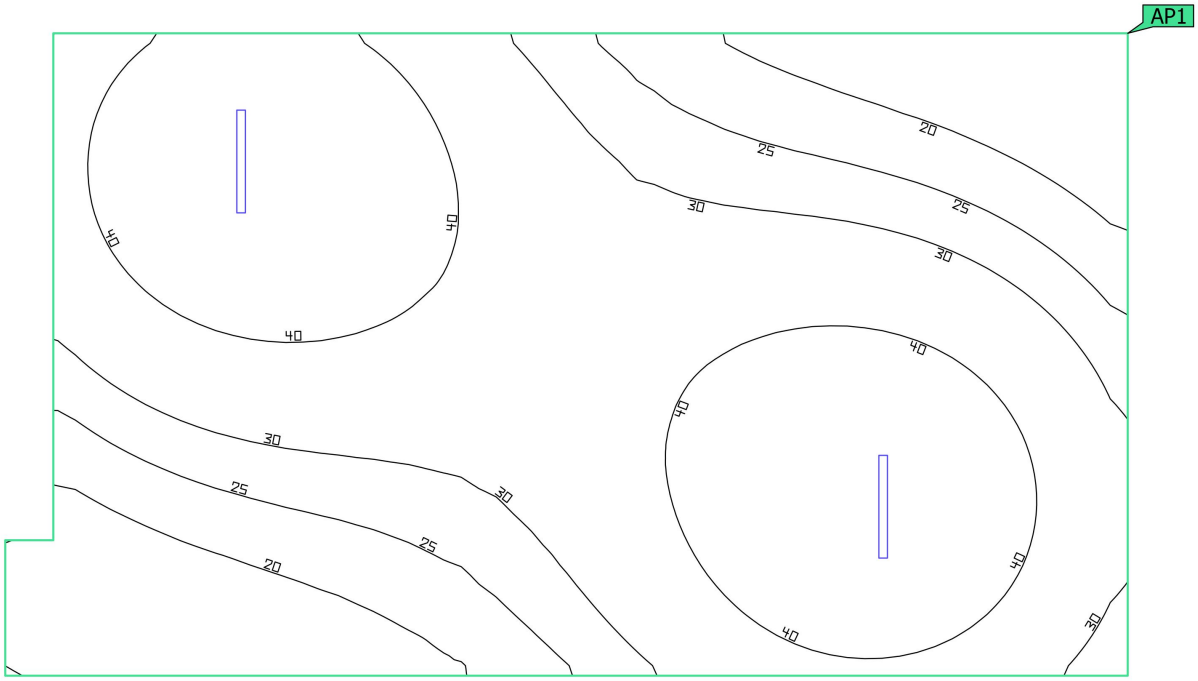


CDL polare

Edificio 1 · Piano 1 · Sala laterale Palco (Scena illuminazione di emergenza)

Superficie antipanico (Sala laterale Palco)

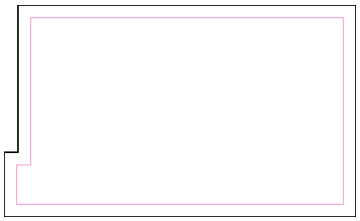


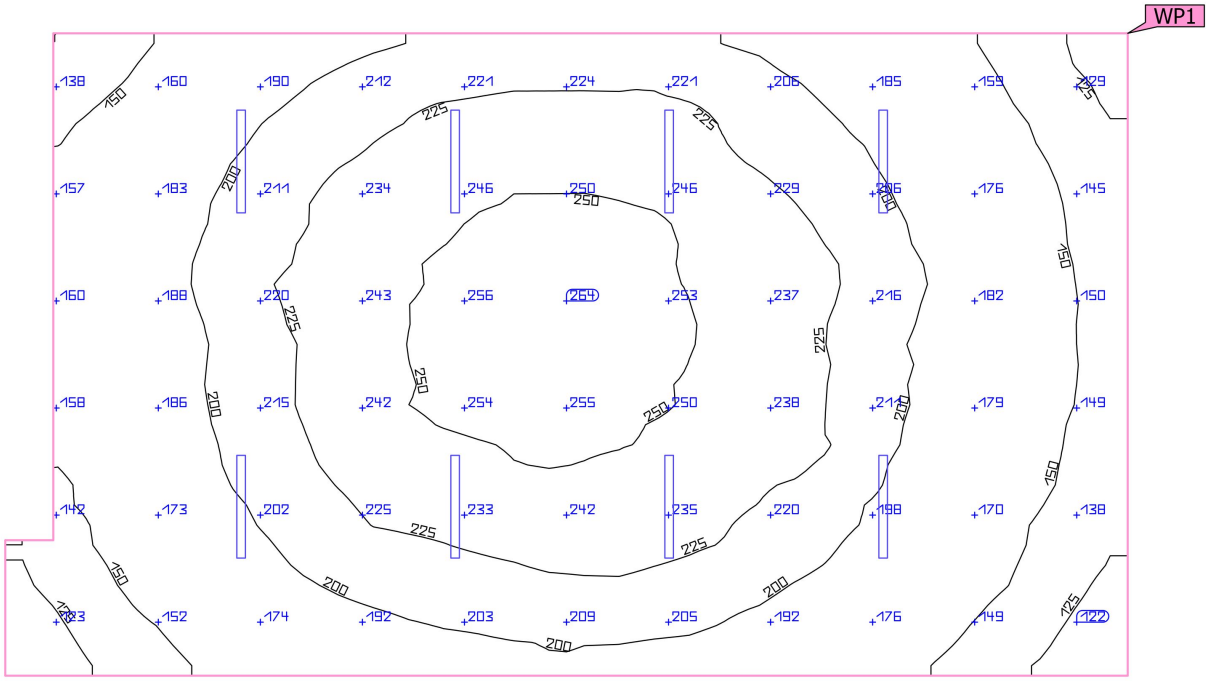


Proprietà	$E_{min.}$	E_{max}	U_d	Indice
Superficie antipanico (Sala laterale Palco) Illuminamento perpendicolare (adattivo) Altezza: 0.000 m	9.94 lx	49.8 lx	0.20	AP1

(Scena luce 1)

Sala laterale

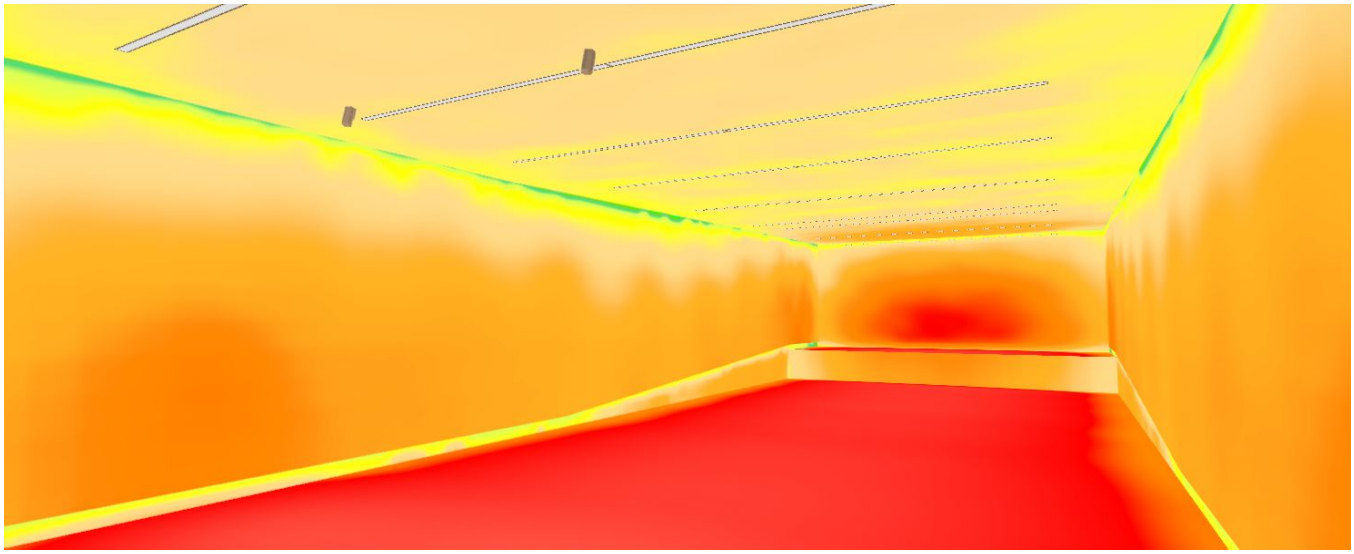


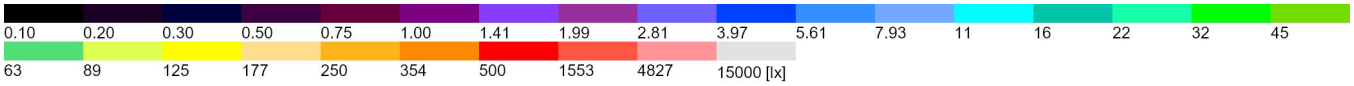


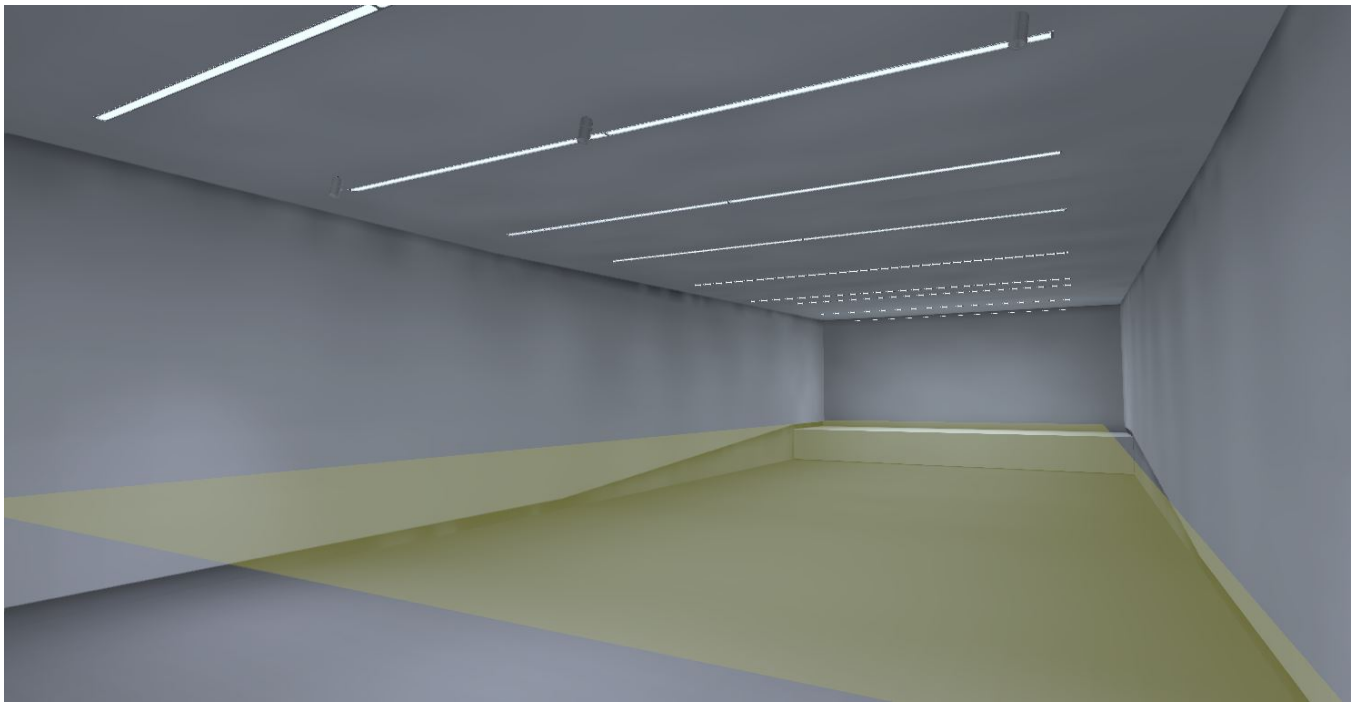
Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Sala laterale Illuminamento perpendicolare (adattivo) Altezza: 0.000 m, Zona margine: 0.500 m	200 lx	106 lx	264 lx	0.53	0.40	WP1

DIALux

Immagini







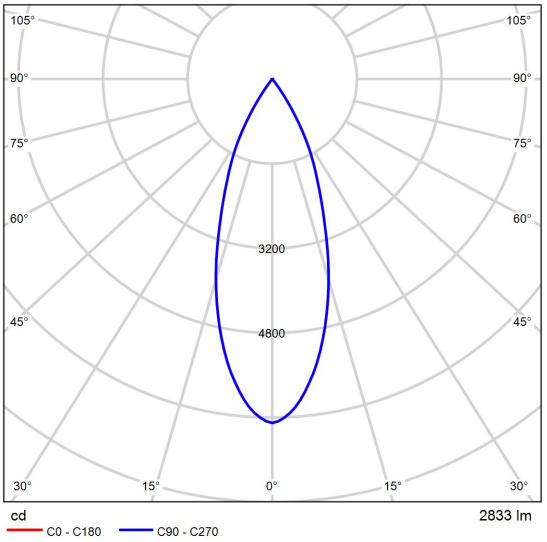
DIALux

Scheda tecnica prodotto

FAGERHULT - TOUCH MINI HL 940 WIDE BEAM WHITE

Articolo No.	84212
P	24.0 W
$\Phi_{Lampadina}$	–
$\Phi_{Lampada}$	2833 lm
η	–
Efficienza	118.1 lm/W
CCT	4000 K
CRI	90

Installation
Track mounted 3-phase track
Design
Housing in powder coated aluminium, white (RAL 9016), black (RAL 9017). Integrated driver.



CDL polare

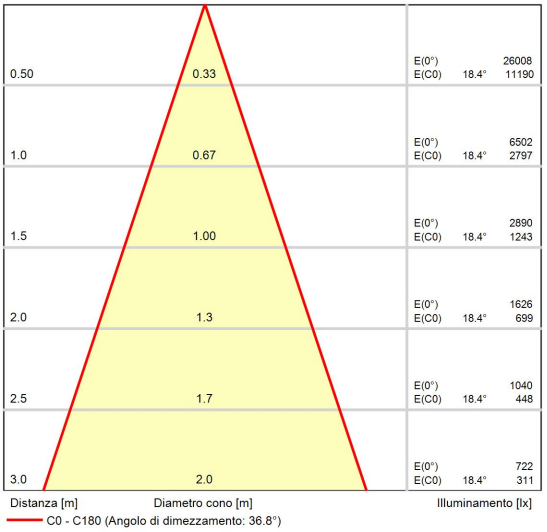
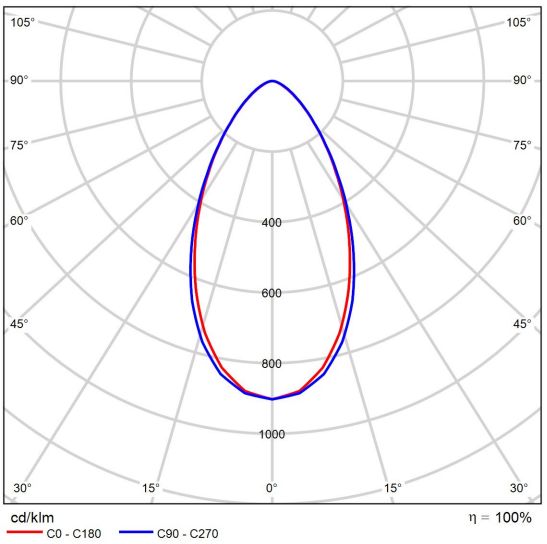


Diagramma conico

Scheda tecnica prodotto

Intra Lighting - Gyon RV LDP 6700 lm 63 W 940 L2841 mm DALI IP44 white

Articolo No.	170171U1091
P	62.5 W
$\Phi_{Lampadina}$	6710 lm
$\Phi_{Lampada}$	6680 lm
η	99.56 %
Efficienza	106.8 lm/W
CCT	4000 K
CRI	90



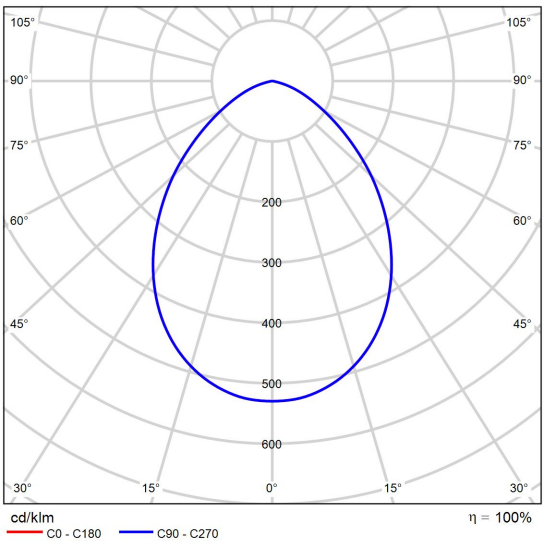
CDL polare

DIALux

Scheda tecnica prodotto

Intra Lighting - Nitor RV DPR 990-1850 lm 9-18 W 350-700 mA 26 V 940 D154 mm IP44 white/white 500 mA

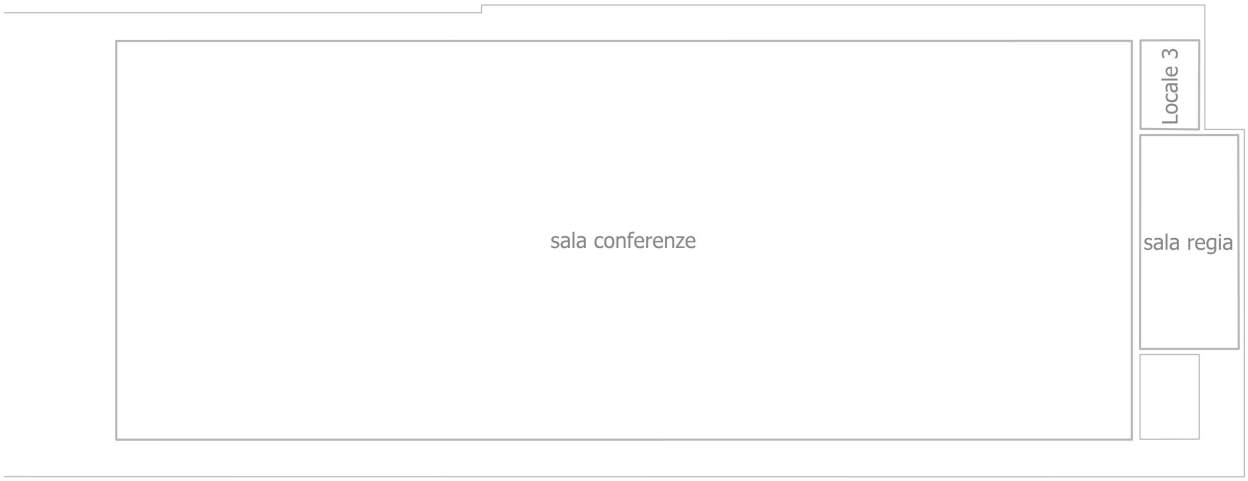
Articolo No.	1481B0342011
P	12.6 W
$\Phi_{Lampadina}$	1364 lm
$\Phi_{Lampada}$	1364 lm
η	99.99 %
Efficienza	108.7 lm/W
CCT	4000 K
CRI	90



CDL polare

Piano 1 (Scena illuminazione di emergenza)

Elenco dei locali



Piano 1 (Scena illuminazione di emergenza)

Elenco dei locali

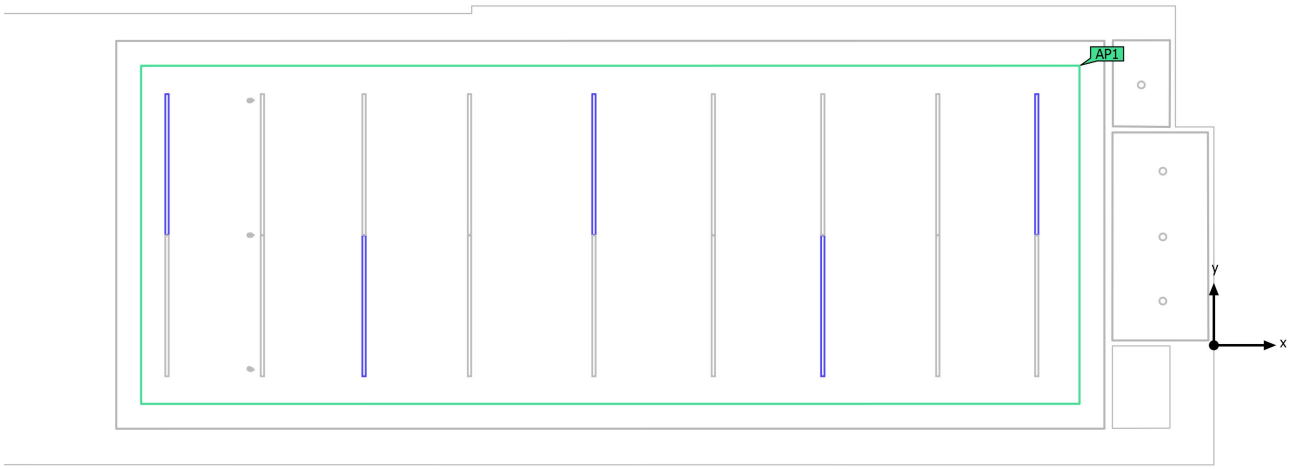
sala conferenze

P_{totale}	A_{Locale}	Valore di allacciamento specifico	$E_{min.}$ (Superficie antipanico)
312.5 W	154.77 m²	2.02 W/m² (Area)	21.6 lx

Pz.	Produttore	Articolo No.	Nome articolo	P	Φ
5	Intra Lighting	170171U1091	Gyon RV LDP 6700 lm 63 W 940 L2841 mm DALI IP44 white	62.5 W	6680 lm (100 %)

Piano 1 (Scena illuminazione di emergenza)

Oggetti di calcolo



Piano 1 (Scena illuminazione di emergenza)

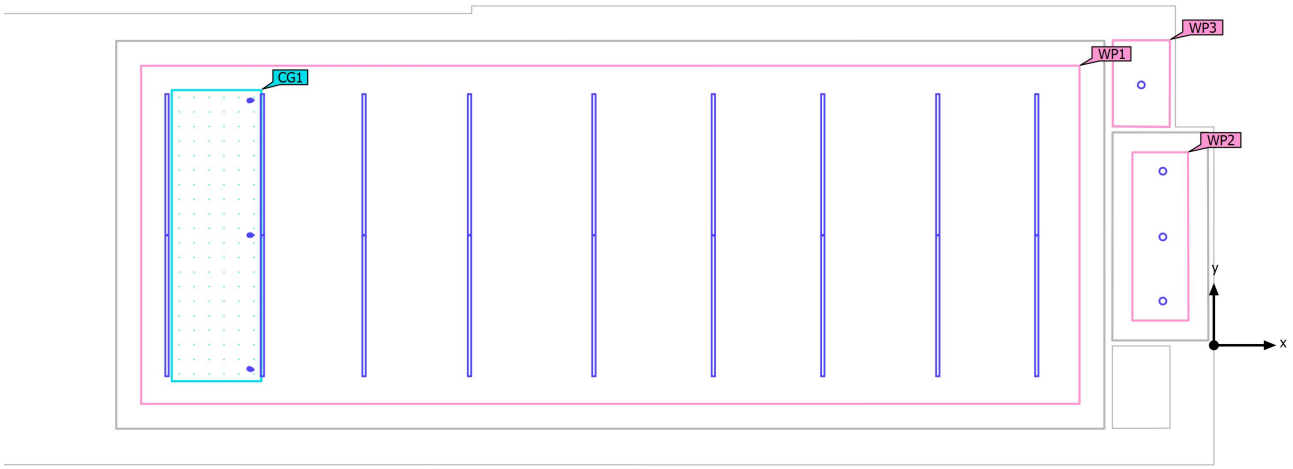
Oggetti di calcolo

Zone antipanico

Proprietà	$E_{min.}$ (Nominale)	E_{max}	U_d (Nominale)	Indice
Superficie antipanico (sala conferenze) Illuminamento perpendicolare (adattivo) Altezza: 0.000 m	21.6 lx	374 lx	0.058	AP1

Piano 1 (Scena luce 1)

Oggetti di calcolo



Piano 1 (Scena luce 1)

Oggetti di calcolo

Superfici utili

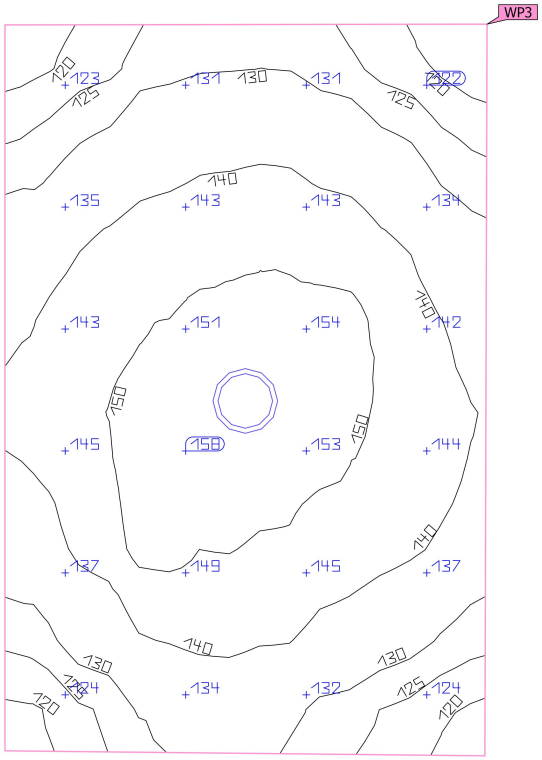
Proprietà	Ē (Nominale)	$E_{min.}$	E_{max}	U_o (g_1) (Nominale)	g_2	Indice
Superficie utile (sala conferenze) Illuminamento perpendicolare (adattivo) Altezza: 1.000 m, Zona margine: 0.500 m	873 lx	387 lx	1999 lx	0.44	0.19	WP1
Superficie utile (sala regia) Illuminamento perpendicolare (adattivo) Altezza: 1.000 m, Zona margine: 0.400 m	284 lx	229 lx	319 lx	0.81	0.72	WP2
Superficie utile (Locale 3) Illuminamento perpendicolare (adattivo) Altezza: 1.000 m, Zona margine: 0.000 m	139 lx	114 lx	156 lx	0.82	0.73	WP3

Superfici di calcolo

Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie di calcolo 1 Illuminamento perpendicolare Altezza: 1.000 m	1408 lx	968 lx	1950 lx	0.69	0.50	CG1

Piano 1 · Locale 3 (Scena luce 1)

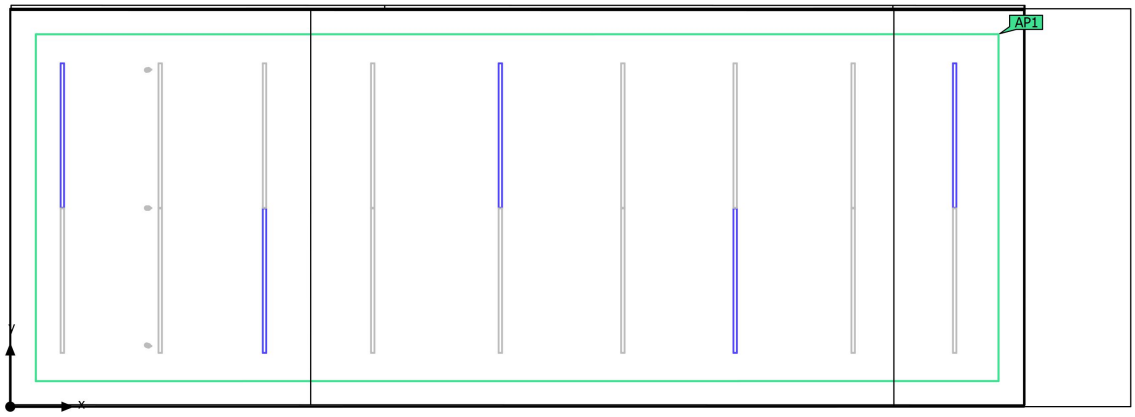
Superficie utile (Locale 3)



Proprietà	Ē (Nominale)	$E_{min.}$	E_{max}	U_o (g_1) (Nominale)	g_2	Indice
Superficie utile (Locale 3) Illuminamento perpendicolare (adattivo) Altezza: 1.000 m, Zona margine: 0.000 m	139 lx (≥ 500 lx)	114 lx	156 lx	0.82 (≥ 0.60)	0.73	WP3

Piano 1 · sala conferenze (Scena illuminazione di emergenza)

Riepilogo



Base	154.77 m²
Coefficienti di riflessione	Soffitto: 70.0 %, Pareti: 50.0 %, Pavimento: 20.0 %
Fattore di diminuzione	0.80 (fisso)

Altezza libera	4.620 m
Altezza di montaggio	3.554 m – 3.801 m
Altezza Superficie utile	1.000 m
Zona margine Superficie utile	0.500 m

Piano 1 · sala conferenze (Scena illuminazione di emergenza)

Riepilogo

Risultati

	Unità	Calcolato	Nominale	OK	Indice
Area	Valore di allacciamento specifico	2.02 W/m²	–		

Superficie antipanico

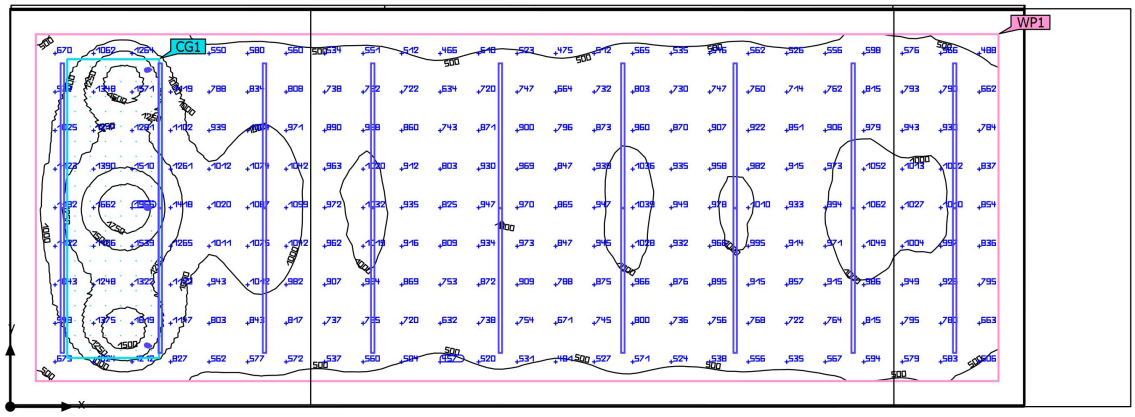
Proprietà	$E_{min.}$ (Nominale)	E_{max}	U_d (Nominale)	Indice
Superficie antipanico (sala conferenze) Illuminamento perpendicolare (adattivo) Altezza: 0.000 m	21.6 lx	374 lx	0.058	AP1

Lista lampade

Pz.	Produttore	Articolo No.	Nome articolo	P	Φ	Efficienza
5	Intra Lighting	170171U1091	Gyon RV LDP 6700 lm 63 W 940 L2841 mm DALI IP44 white	62.5 W	6680 lm	106.8 lm/W
				62.5 W	6680 lm (100 %)	–

Piano 1 · sala conferenze (Scena luce 1)

Riepilogo



Base	154.77 m²
Coefficienti di riflessione	Soffitto: 70.0 %, Pareti: 50.0 %, Pavimento: 20.0 %
Fattore di diminuzione	0.90 (fisso)

Altezza libera	4.620 m
Altezza di montaggio	3.554 m – 3.801 m
Altezza Superficie utile	1.000 m
Zona margine Superficie utile	0.500 m

Piano 1 · sala conferenze (Scena luce 1)

Riepilogo

Risultati

	Unità	Calcolato	Nominale	Indice
Superficie utile	$\bar{E}_{perpendicolare}$	873 lx	≥ 500 lx	WP1
	U_o (g_1)	0.44	≥ 0.60	WP1
	Valore di allacciamento specifico	9.34 W/m²	–	
		1.07 W/m²/100 lx	–	
Valutazione di abbagliamento(1)	$R_{UG, max}$	19		
Valori di consumo(2)	Consumo	2964 kWh/a	max. 5450 kWh/a	
Area	Valore di allacciamento specifico	7.73 W/m²	–	
		0.89 W/m²/100 lx	–	

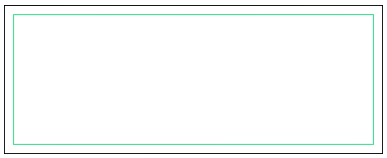
(1) Basato su uno spazio rettangolare di 19.860 m X 7.794 m e SHR di 0.25.(2) Calcolato utilizzando DIN:18599-4.

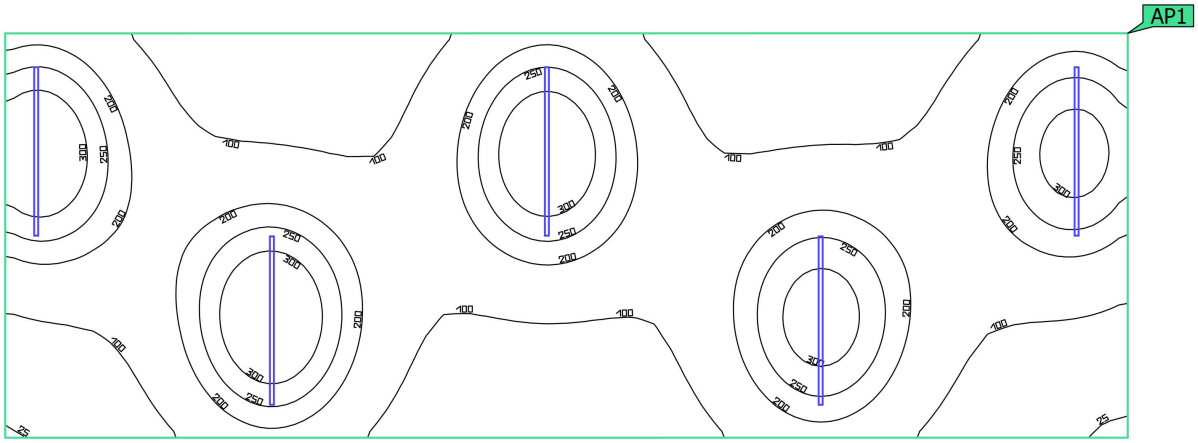
Lista lampade

Pz.	Produttore	Articolo No.	Nome articolo	R_{UG}	P	Φ	Efficienza
3	FAGERHULT	84212	TOUCH MINI HL 940 WIDE BEAM WHITE	16	24.0 W	2833 lm	118.1 lm/W
5	Intra Lighting	170171U1091	Gyon RV LDP 6700 lm 63 W 940 L2841 mm DALI IP44 white	19	62.5 W	6680 lm	106.8 lm/W
				–	62.5 W	6680 lm (100 %)	–
13	Intra Lighting	170171U1091	Gyon RV LDP 6700 lm 63 W 940 L2841 mm DALI IP44 white	19	62.5 W	6680 lm	106.8 lm/W

Piano 1 · sala conferenze (Scena illuminazione di emergenza)

Superficie antipanico (sala conferenze)

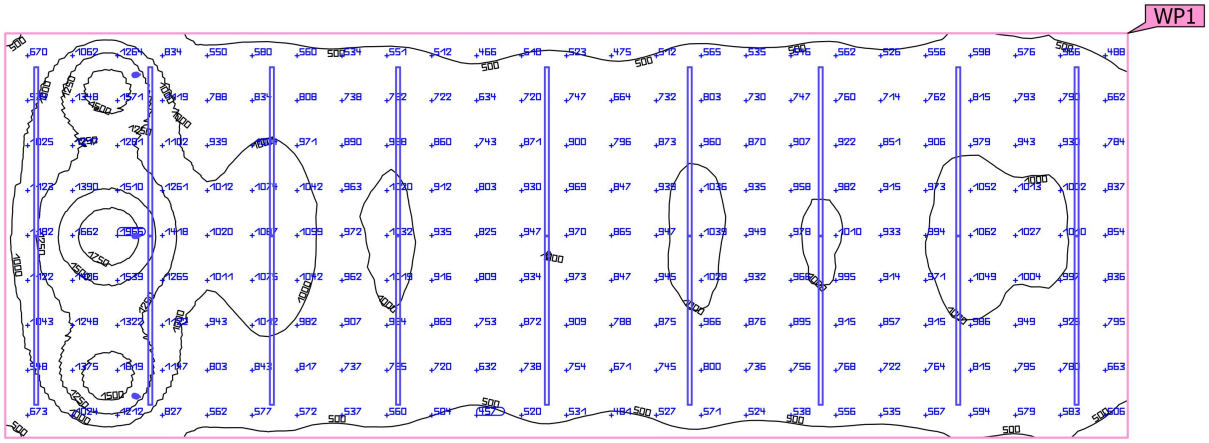




Proprietà	$E_{min.}$ (Nominale)	E_{max}	U_d (Nominale)	Indice
Superficie antipanico (sala conferenze) Illuminamento perpendicolare (adattivo) Altezza: 0.000 m	21.6 lx (≥ 0.50 lx)	374 lx	0.058 (≥ 0.025)	AP1

Piano 1 · sala conferenze (Scena luce 1)

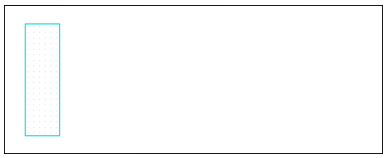
Superficie utile (sala conferenze)

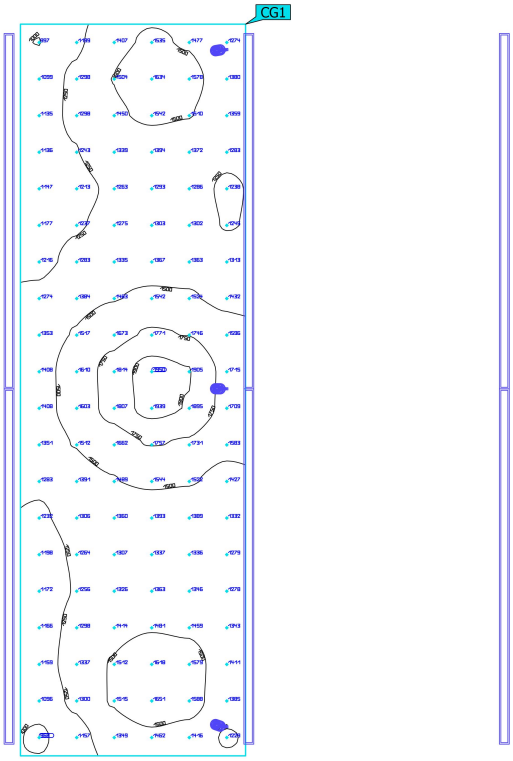


Proprietà	Ē (Nominale)	$E_{min.}$	E_{max}	U_o (g_1) (Nominale)	g_2	Indice
Superficie utile (sala conferenze) Illuminamento perpendicolare (adattivo) Altezza: 1.000 m, Zona margine: 0.500 m	873 lx (≥ 500 lx)	387 lx	1999 lx	0.44 (≥ 0.60)	0.19	WP1

Piano 1 · sala conferenze (Scena luce 1)

Superficie di calcolo 1

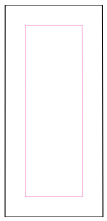


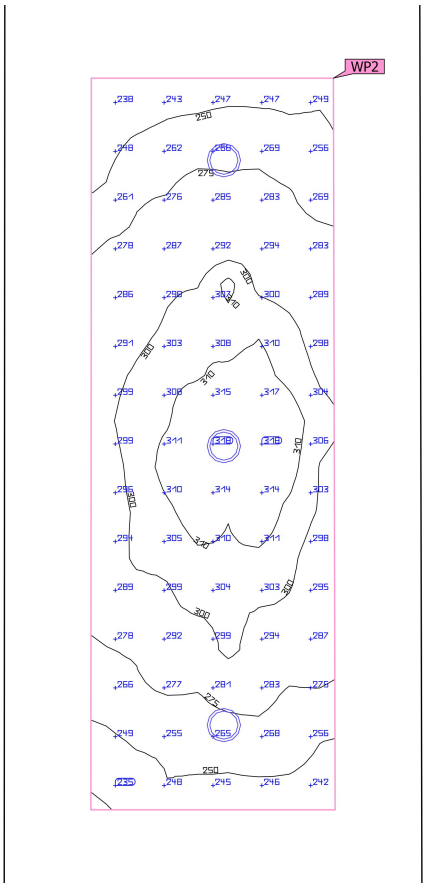


Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie di calcolo 1 Illuminamento perpendicolare Altezza: 1.000 m	1408 lx	968 lx	1950 lx	0.69	0.50	CG1

Piano 1 · sala regia (Scena luce 1)

Superficie utile (sala regia)

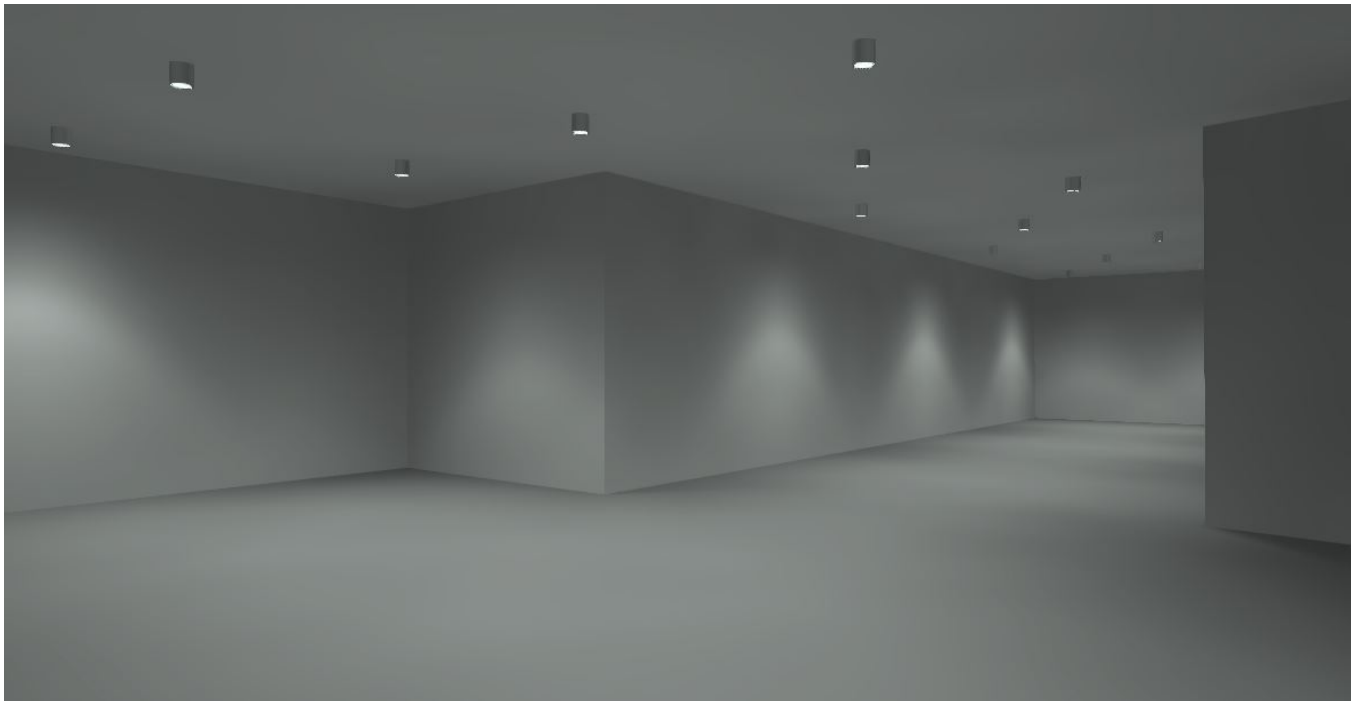


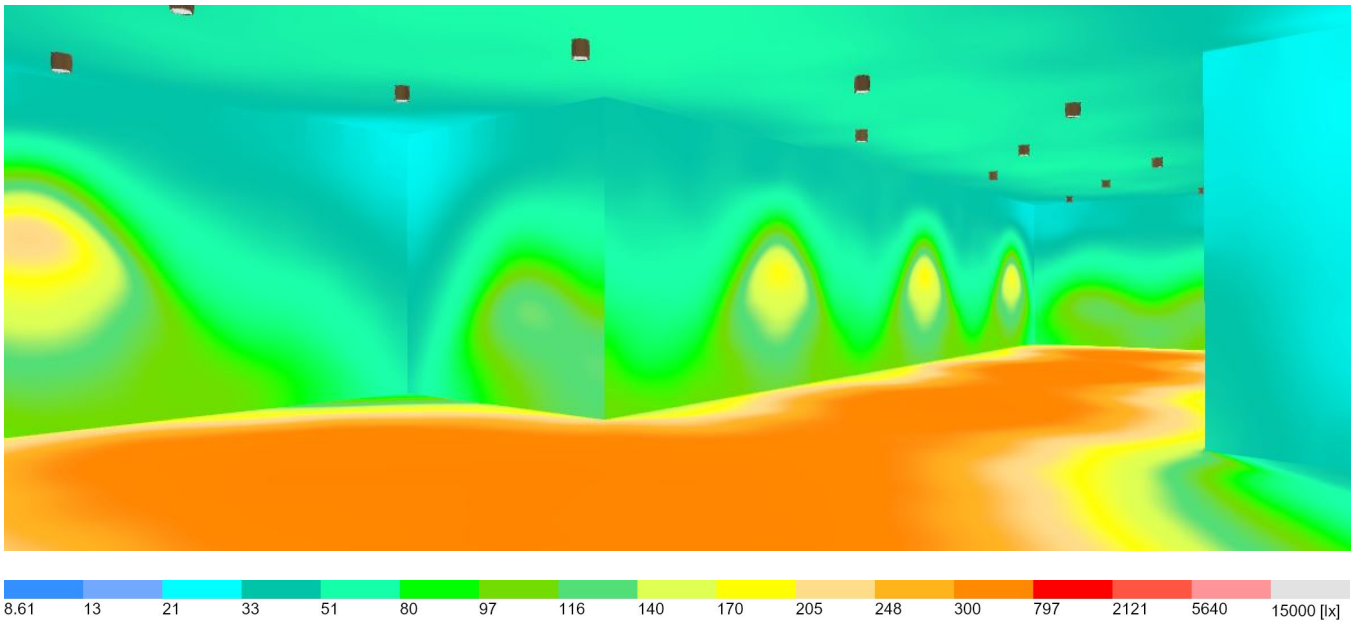


Proprietà	Ē (Nominale)	$E_{min.}$	E_{max}	U_o (g_1) (Nominale)	g_2	Indice
Superficie utile (sala regia) Illuminamento perpendicolare (adattivo) Altezza: 1.000 m, Zona margine: 0.400 m	284 lx (≥ 500 lx)	229 lx	319 lx	0.81 (≥ 0.60)	0.72	WP2

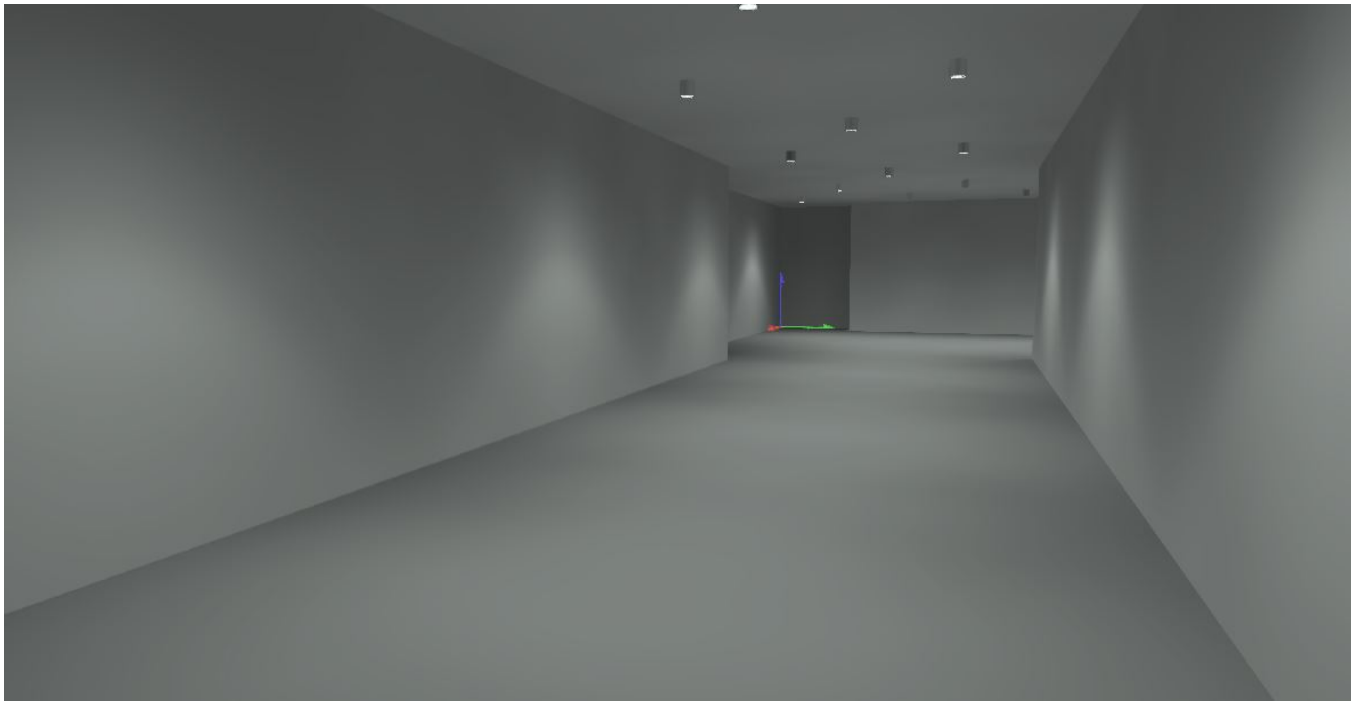
DIALux

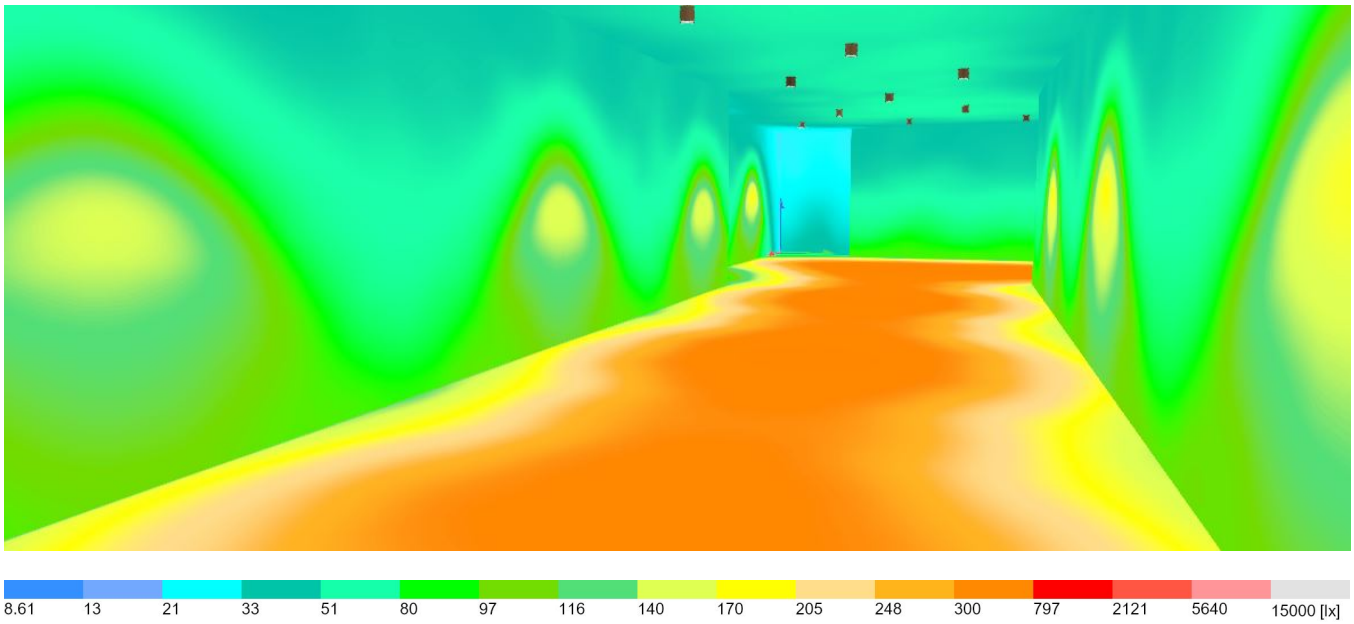
Immagini





Immagini



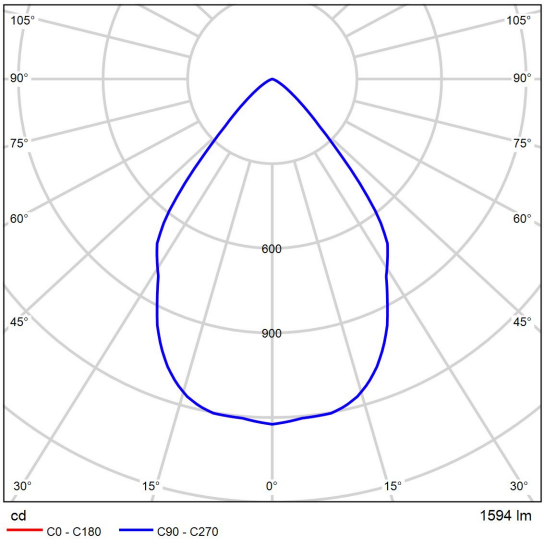

8.61
13
21
33
51
80
97
116
140
170
205
248
300
797
2121
5640
15000 [lx]

DIALux

Scheda tecnica prodotto

BEGA - LED 13,7 W

Articolo No.	50489.1K3
P	13.7 W
$\Phi_{Lampadina}$	–
$\Phi_{Lampada}$	1594 lm
η	–
Efficienza	116.3 lm/W
CCT	3000 K
CRI	80



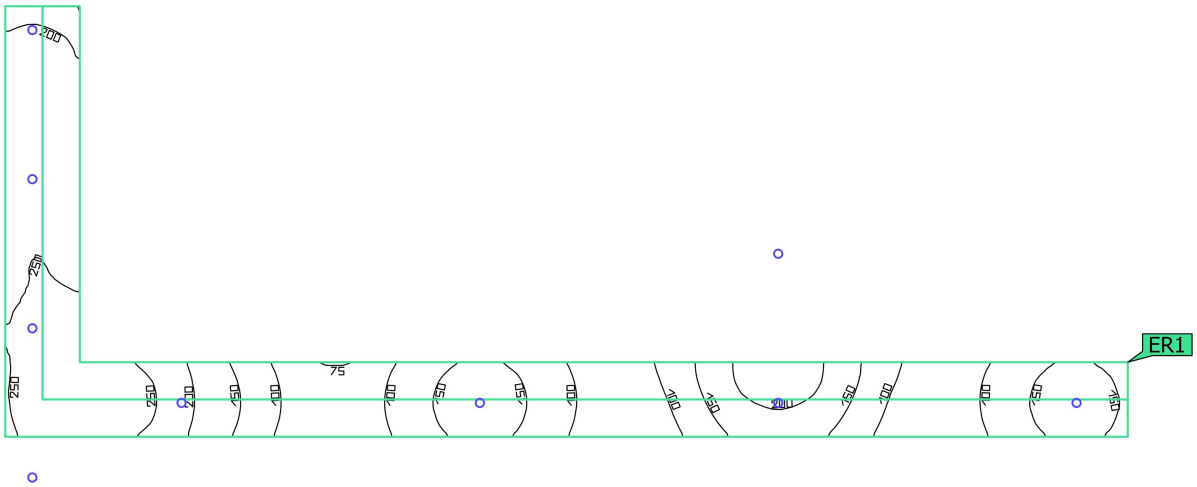
CDL polare

BEGA GENIUS Deckenleuchte-Tiefstrahler 50489.1K3 für den Innenbereich.
Symmetrisch breitstreuende Lichtstärkeverteilung.
Hocheffiziente und verlustarme Lichtverteilung durch Hybrid-Optik aus Reflektor
und optischer Linse. LED, 13,7 W Leuchten-Anschlussleistung, Leuchten-Lichtstrom 1593 lm, Halbstreuwinkel 62°, Farbtemperatur 3000 K.
Farbwiedergabeindex (CRI) > 80.
Mit austauschbarem BEGA LED-Modul mit Übertemperaturschutz und einer
Lebenserwartung von mindestens 50.000 Betriebsstunden.
20-jährige Nachliefergarantie auf das LED-Modul und die Verschleißteile.
Mit LED-Netzteil, DALI steuerbar, 220-240 V, 0/50-60 Hz. Schutzklasse I.
Leuchtengehäuse aus Aluminiumguss, Oberfläche Einbrennlackierung weiß.
Optische Silikonlinse. Reflektoroberfläche aus eloxiertem Reinstaluminium.
Sicherheitsglas. Abschlussring Oberfläche Chrom. Abmessungen Ø 120 x 115 mm.

DIALux

Edificio 1 · Piano 1 (Scena illuminazione di emergenza)

Via di esodo 1



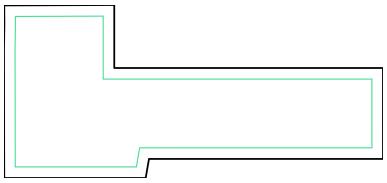
Proprietà	$E_{min.}$ Area centrale	E_{max} Area centrale	$E_{min.}$ Linea mediana	E_{max} Linea mediana	U_d	Indice
Via di esodo 1 Illuminamento perpendicolare (adattivo) Altezza: 0.000 m	74.7 lx	288 lx	81.9 lx	288 lx	0.28	ER1

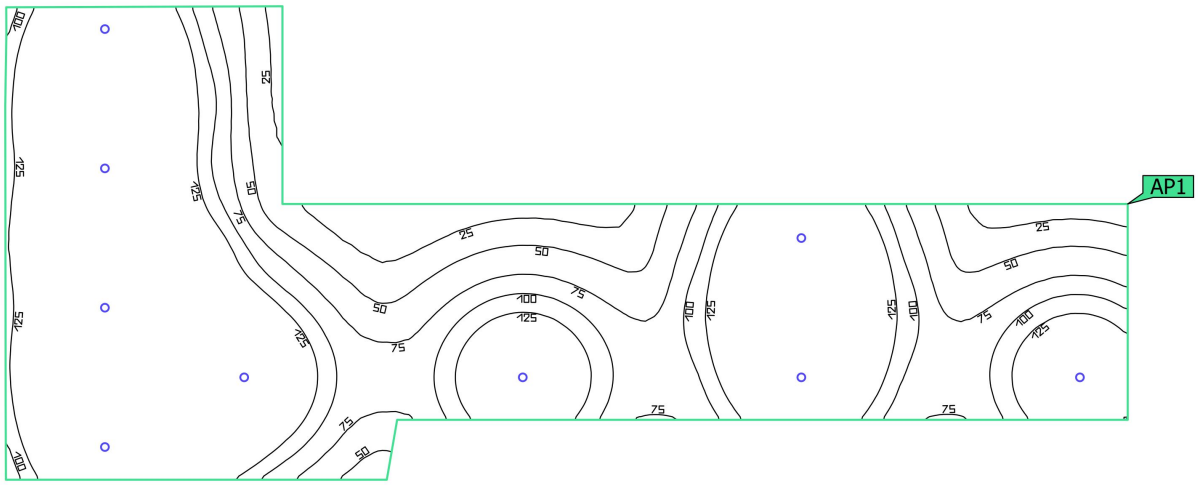
Avvertenze sulla progettazione:
Il calcolo relativo alla scena dell'illuminazione di emergenza è stato effettuato senza tenere in considerazione i mobili presenti.

DIALux

Edificio 1 · Piano 1 · Locale 1 (Scena illuminazione di emergenza)

Superficie antipanico (Locale 1)



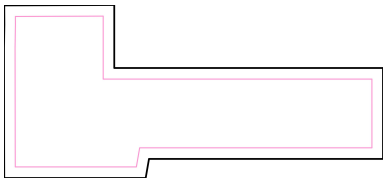


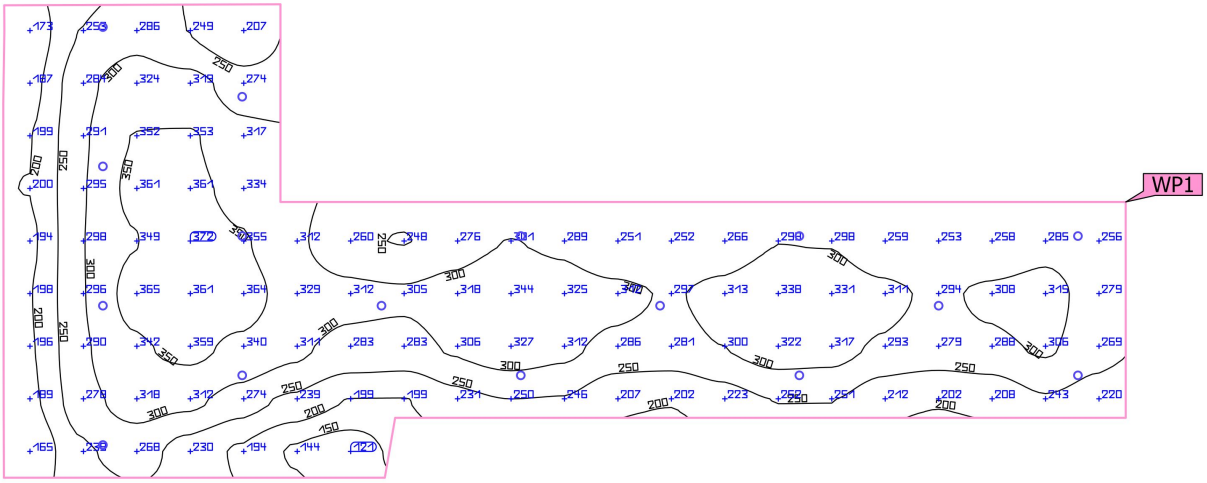
Proprietà	$E_{min.}$	E_{max}	U_d	Indice
Superficie antipanico (Locale 1) Illuminamento perpendicolare (adattivo) Altezza: 0.000 m	10.2 lx	288 lx	0.035	AP1

Avvertenze sulla progettazione:
Il calcolo relativo alla scena dell'illuminazione di emergenza è stato effettuato senza tenere in considerazione i mobili presenti.

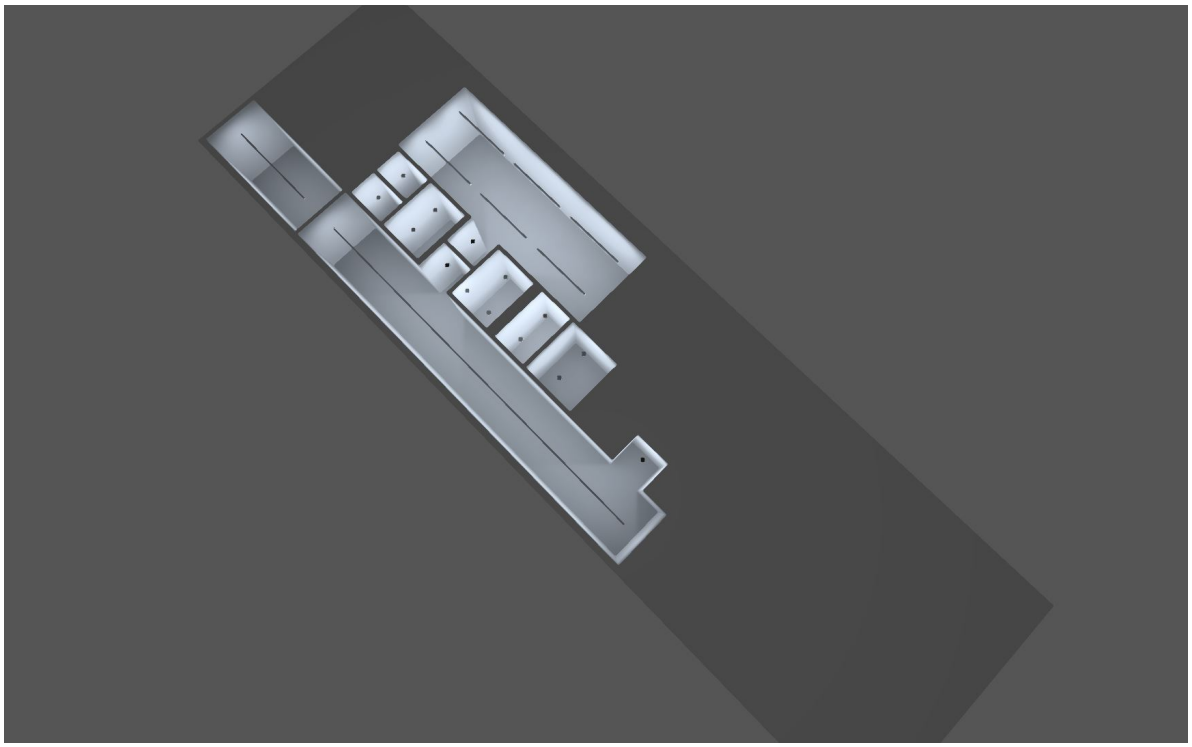
(Scena luce 1)

Superficie utile (Locale 1)





Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie utile (Locale 1) Illuminamento perpendicolare Altezza: 0.000 m, Zona margine: 0.500 m	277 lx	121 lx	372 lx	0.44	0.33	WP1



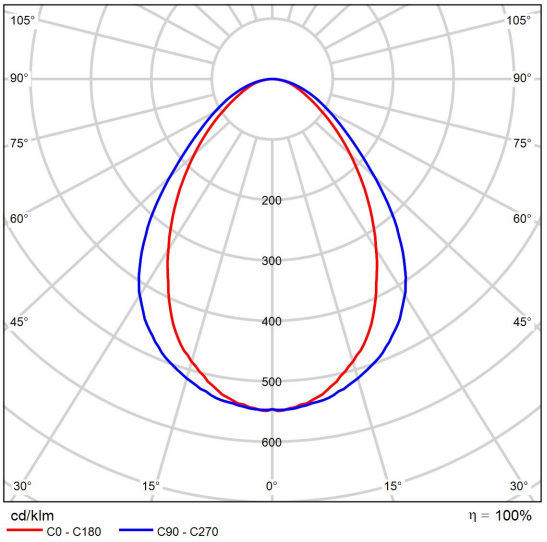
Spogliatoi/Uffici/Sala Prove P1

Created with DIALux

Scheda tecnica prodotto

Intra Lighting - Gyon line RV L DPR 7100 lm 75 W 940 L3082 mm DALI IP20 white

Articolo No.	170141J2001
P	74.9 W
$\Phi_{Lampadina}$	7118 lm
$\Phi_{Lampada}$	7118 lm
η	100.00 %
Efficienza	95.1 lm/W
CCT	4000 K
CRI	90



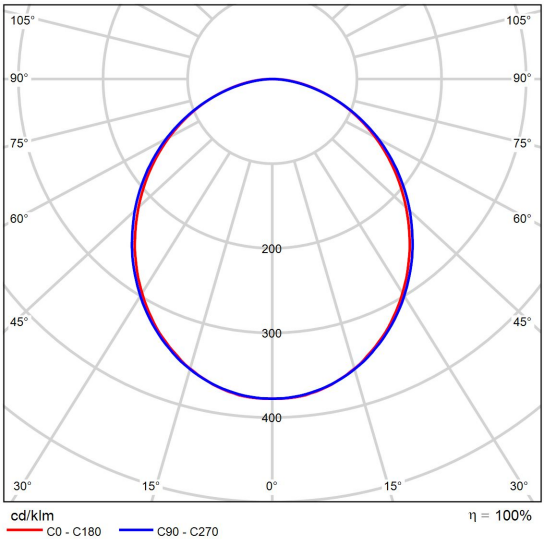
CDL polare

DIALux

Scheda tecnica prodotto

Intra Lighting - Kalis 65 RV SOP 2100 lm 22 W 940 L2069 mm DALI IP44 white

Articolo No.	172411H10K1
P	22.2 W
$\Phi_{Lampadina}$	2102 lm
$\Phi_{Lampada}$	2102 lm
η	100.00 %
Efficienza	94.6 lm/W
CCT	4000 K
CRI	90



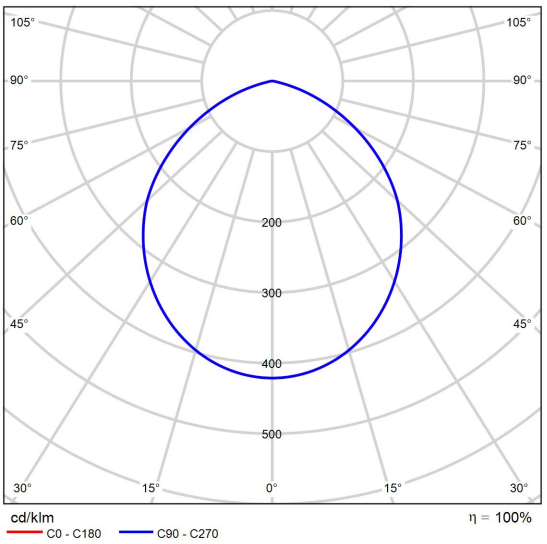
CDL polare

DIALux

Scheda tecnica prodotto

Intra Lighting - Nitor RV SOP 940-1750 lm 9-18 W 350-700 mA 26 V 940 D154 mm IP44 white/white 500 mA

Articolo No.	1481A0342011
P	12.6 W
$\Phi_{Lampadina}$	1296 lm
$\Phi_{Lampada}$	1296 lm
η	99.99 %
Efficienza	103.3 lm/W
CCT	4000 K
CRI	90

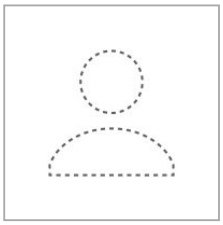


CDL polare

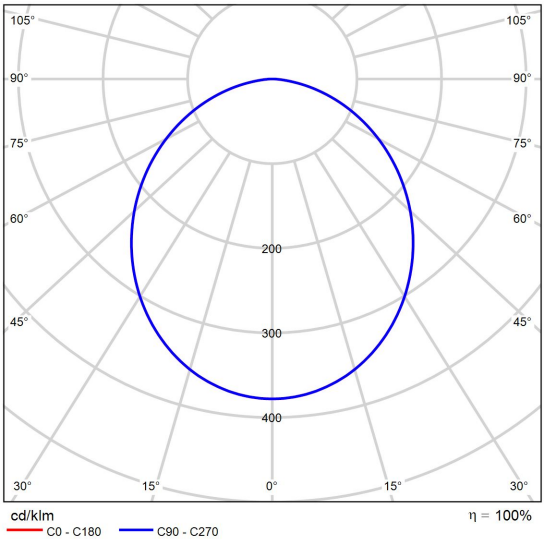
DIALux

Scheda tecnica prodotto

PXF Lighting - Bari Q LED 155 11W 1384lm 840 OPAL



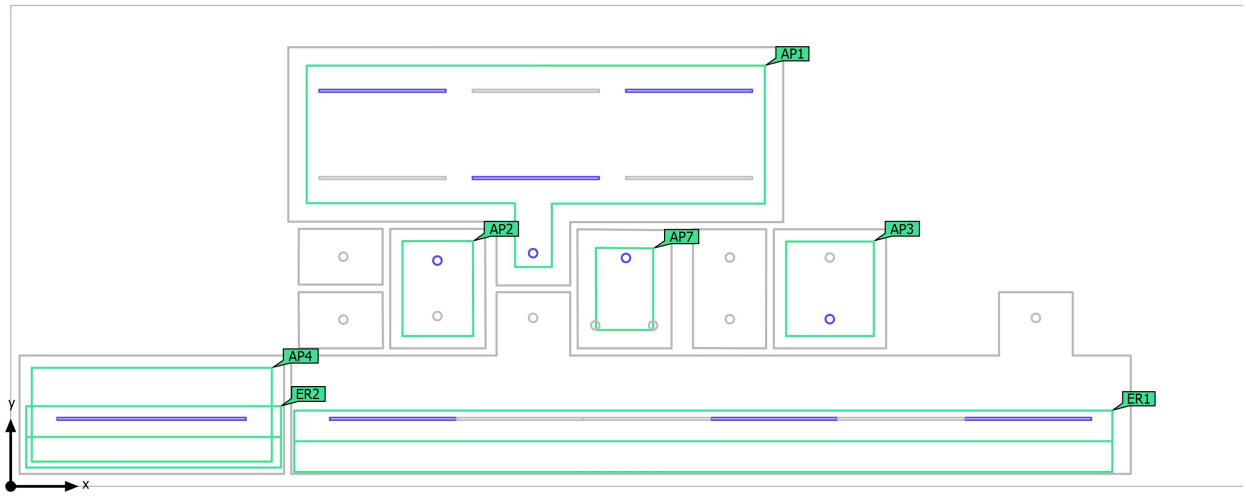
Articolo No.	EU001.1111.840.XXXX
P	11.0 W
$\Phi_{Lampadina}$	1510 lm
$\Phi_{Lampada}$	1510 lm
η	100.02 %
Efficienza	137.3 lm/W
CCT	4000 K
CRI	80



CDL polare

(Scena illuminazione di emergenza)

Oggetti di calcolo



(Scena illuminazione di emergenza)

Oggetti di calcolo

Zone antipanico

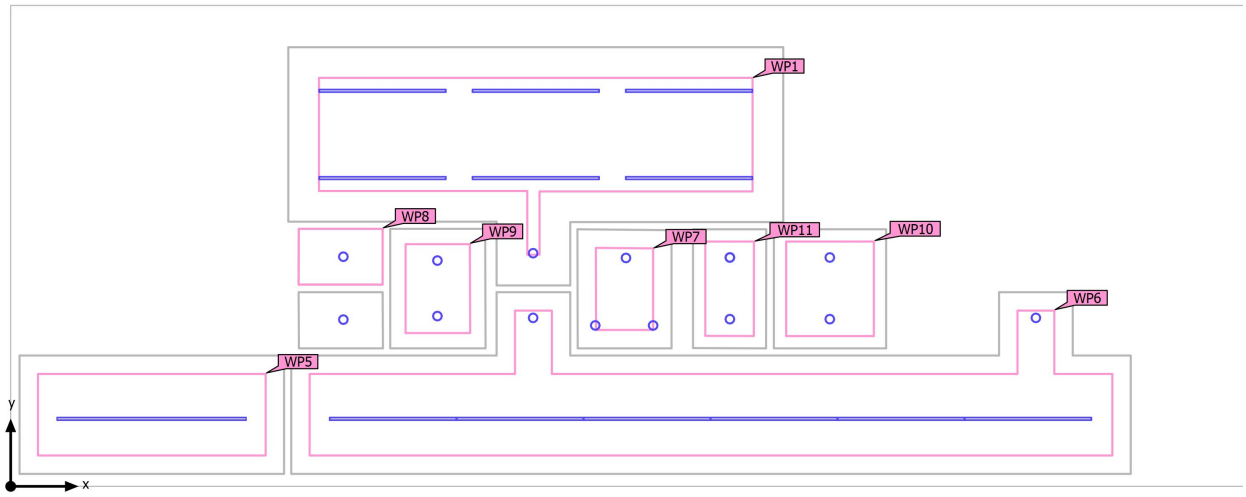
Proprietà	$E_{min.}$	E_{max}	U_d	Indice
Superficie antipanico (spogliatoio) Illuminamento perpendicolare (adattivo) Altezza: 0.000 m	48.2 lx	178 lx	0.27	AP1
Superficie antipanico (bagno) Illuminamento perpendicolare (adattivo) Altezza: 0.000 m	45.5 lx	72.4 lx	0.63	AP2
Superficie antipanico (antibagno) Illuminamento perpendicolare (adattivo) Altezza: 0.000 m	41.8 lx	72.4 lx	0.58	AP3
Superficie antipanico (corridoio) Illuminamento perpendicolare (adattivo) Altezza: 0.000 m	61.7 lx	124 lx	0.50	AP4
Superficie antipanico (docce) Illuminamento perpendicolare (adattivo) Altezza: 0.000 m	47.9 lx	72.4 lx	0.66	AP7

Vie di esodo

Proprietà	$E_{min.}$ Area centrale	E_{max} Area centrale	$E_{min.}$ Linea mediana	E_{max} Linea mediana	U_d	Indice
Via di esodo 3 Illuminamento perpendicolare (adattivo) Altezza: 0.000 m	32.3 lx	102 lx	34.5 lx	98.1 lx	0.35	ER1
Via di esodo 4 Illuminamento perpendicolare (adattivo) Altezza: 0.000 m	57.7 lx	124 lx	63.9 lx	121 lx	0.53	ER2

(Scena luce 1)

Oggetti di calcolo



(Scena luce 1)

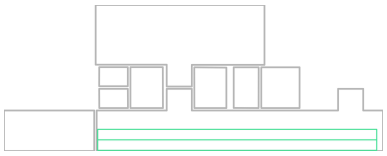
Oggetti di calcolo

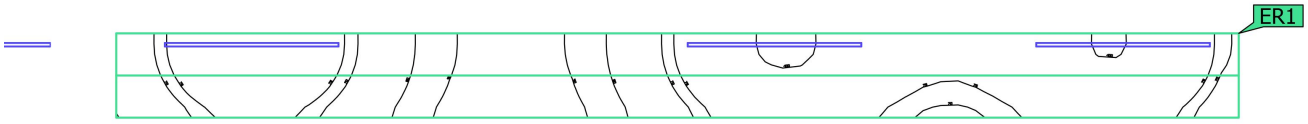
Superfici utili

Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie utile (spogliatoio) Illuminamento perpendicolare Altezza: 0.000 m, Zona margine: 0.500 m	320 lx	237 lx	378 lx	0.74	0.63	WP1
Superficie utile (corridoio) Illuminamento perpendicolare Altezza: 0.000 m, Zona margine: 0.300 m	150 lx	114 lx	177 lx	0.76	0.64	WP5
Superficie utile (corridoio) Illuminamento perpendicolare Altezza: 0.000 m, Zona margine: 0.300 m	243 lx	140 lx	296 lx	0.58	0.47	WP6
Superficie utile (docce) Illuminamento perpendicolare Altezza: 0.000 m, Zona margine: 0.300 m	306 lx	280 lx	321 lx	0.92	0.87	WP7
Superficie utile (wc) Illuminamento perpendicolare Altezza: 0.000 m, Zona margine: 0.000 m	117 lx	111 lx	123 lx	0.95	0.90	WP8
Superficie utile (bagno) Illuminamento perpendicolare Altezza: 0.000 m, Zona margine: 0.250 m	215 lx	202 lx	227 lx	0.94	0.89	WP9
Superficie utile (antibagno) Illuminamento perpendicolare Altezza: 0.000 m, Zona margine: 0.200 m	204 lx	185 lx	218 lx	0.91	0.85	WP10
Superficie utile (bagno) Illuminamento perpendicolare Altezza: 0.000 m, Zona margine: 0.200 m	325 lx	300 lx	341 lx	0.92	0.88	WP11

(Scena illuminazione di emergenza)

Via di esodo 3



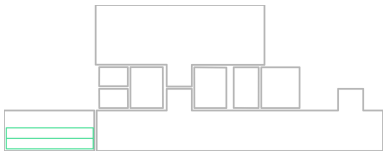


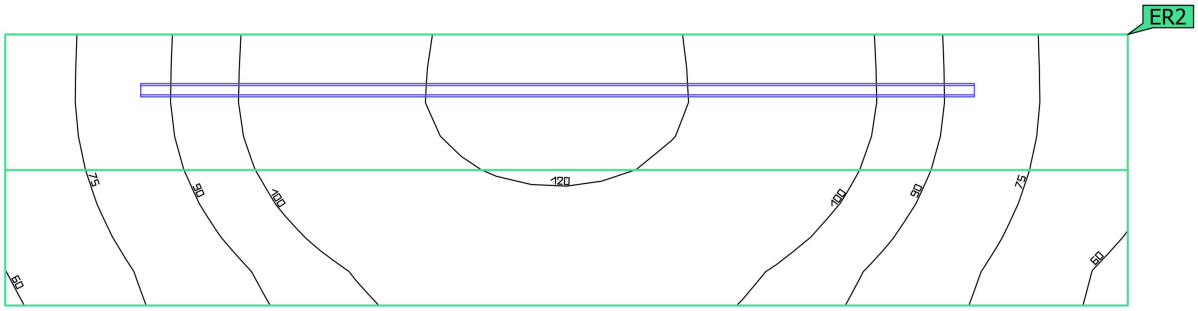
Proprietà	$E_{min.}$ Area centrale	E_{max} Area centrale	$E_{min.}$ Linea mediana	E_{max} Linea mediana	U_d	Indice
Via di esodo 3 Illuminamento perpendicolare (adattivo) Altezza: 0.000 m	32.3 lx	102 lx	34.5 lx	98.1 lx	0.35	ER1

Avvertenze sulla progettazione:
Il calcolo relativo alla scena dell'illuminazione di emergenza è stato effettuato senza tenere in considerazione i mobili presenti.

(Scena illuminazione di emergenza)

Via di esodo 4



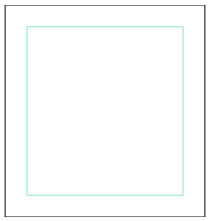


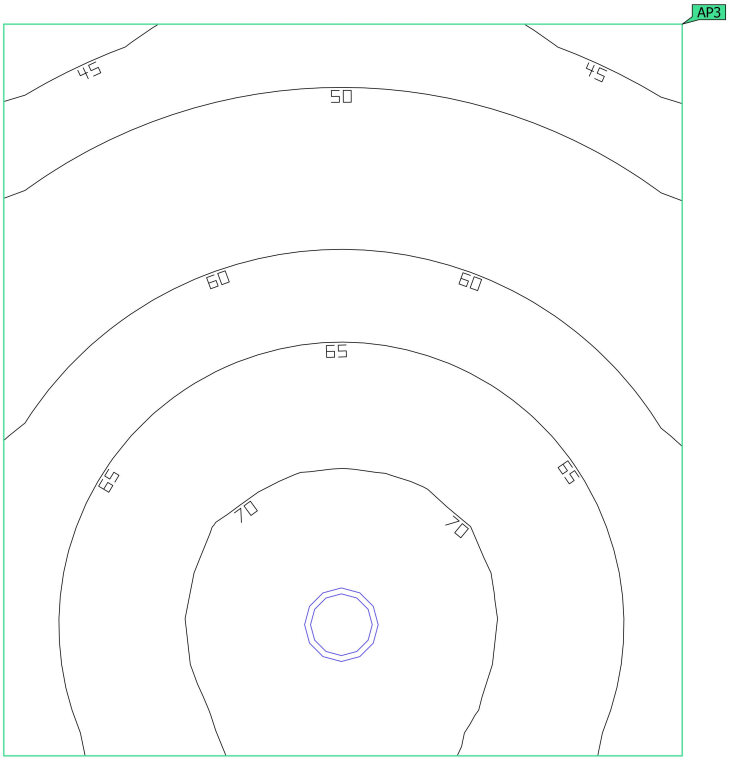
Proprietà	$E_{min.}$ Area centrale	E_{max} Area centrale	$E_{min.}$ Linea mediana	E_{max} Linea mediana	U_d	Indice
Via di esodo 4 Illuminamento perpendicolare (adattivo) Altezza: 0.000 m	57.7 lx	124 lx	63.9 lx	121 lx	0.53	ER2

Avvertenze sulla progettazione:
Il calcolo relativo alla scena dell'illuminazione di emergenza è stato effettuato senza tenere in considerazione i mobili presenti.

antibagno (Scena illuminazione di emergenza)

Superficie antipanico (antibagno)



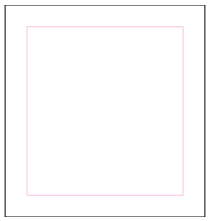


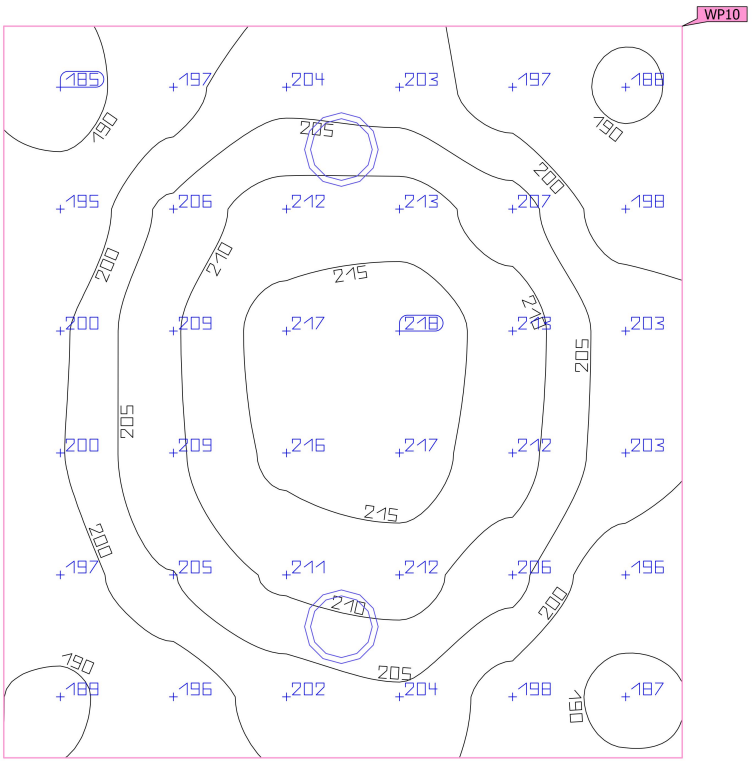
Proprietà	$E_{min.}$	E_{max}	U_d	Indice
Superficie antipanico (antibagno) Illuminamento perpendicolare (adattivo) Altezza: 0.000 m	41.8 lx	72.4 lx	0.58	AP3

Avvertenze sulla progettazione:
Il calcolo relativo alla scena dell'illuminazione di emergenza è stato effettuato senza tenere in considerazione i mobili presenti.

antibagno (Scena luce 1)

Superficie utile (antibagno)

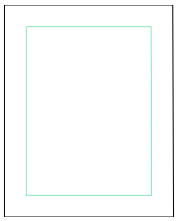


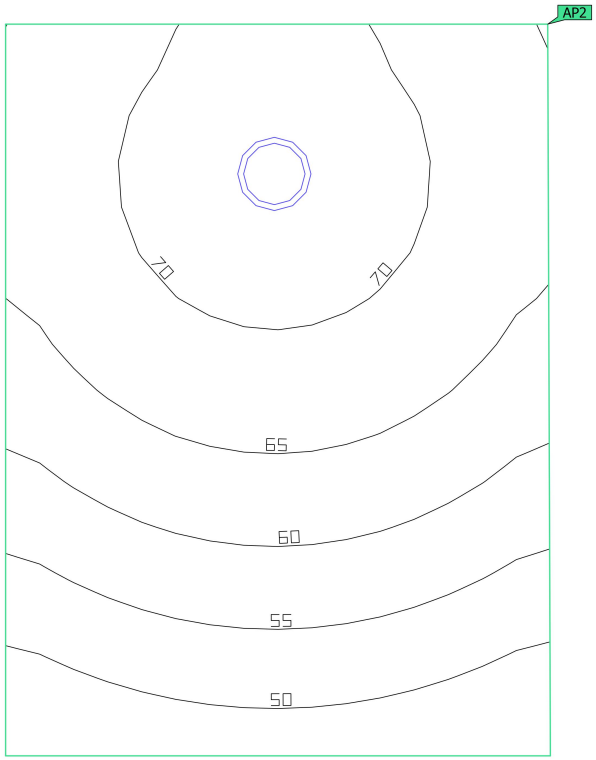


Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie utile (antibagno) Illuminamento perpendicolare Altezza: 0.000 m, Zona margine: 0.200 m	204 lx	185 lx	218 lx	0.91	0.85	WP10

bagno (Scena illuminazione di emergenza)

Superficie antipanico (bagno)





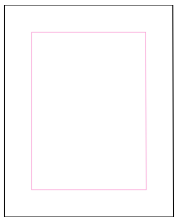
Proprietà	$E_{min.}$	E_{max}	U_d	Indice
Superficie antipanico (bagno) Illuminamento perpendicolare (adattivo) Altezza: 0.000 m	45.5 lx	72.4 lx	0.63	AP2

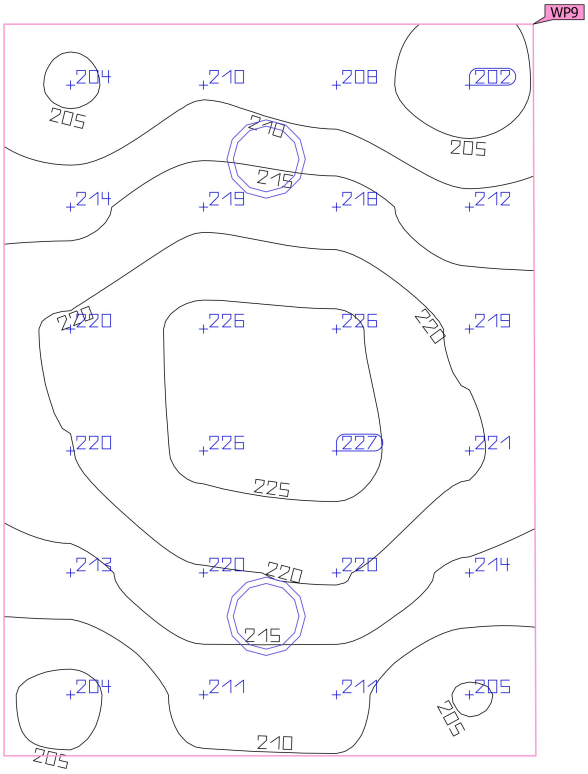
Avvertenze sulla progettazione:
Il calcolo relativo alla scena dell'illuminazione di emergenza è stato effettuato senza tenere in considerazione i mobili presenti.

DIALux

bagno (Scena luce 1)

Superficie utile (bagno)

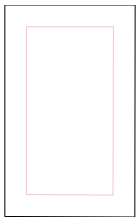


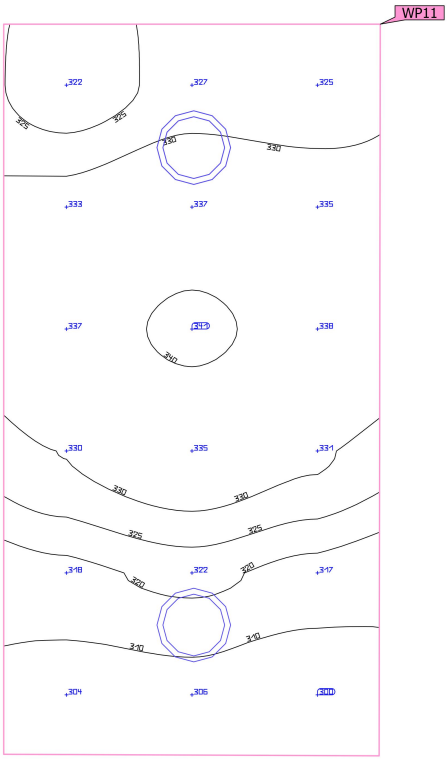


Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie utile (bagno) Illuminamento perpendicolare Altezza: 0.000 m, Zona margine: 0.250 m	215 lx	202 lx	227 lx	0.94	0.89	WP9

bagno (Scena luce 1)

Superficie utile (bagno)

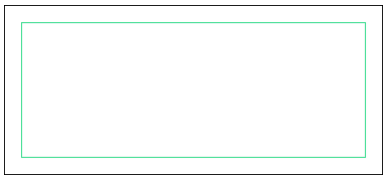


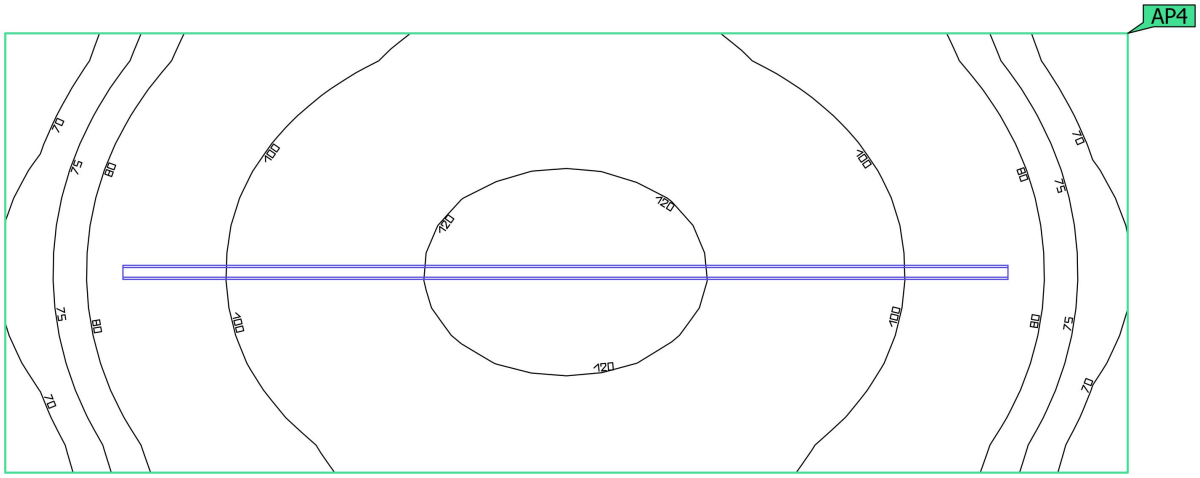


Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie utile (bagno) Illuminamento perpendicolare Altezza: 0.000 m, Zona margine: 0.200 m	325 lx	300 lx	341 lx	0.92	0.88	WP11

corridoio (Scena illuminazione di emergenza)

Superficie antipanico (corridoio)



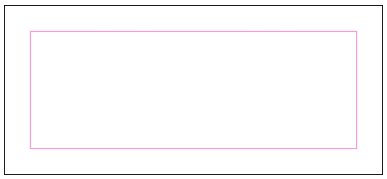


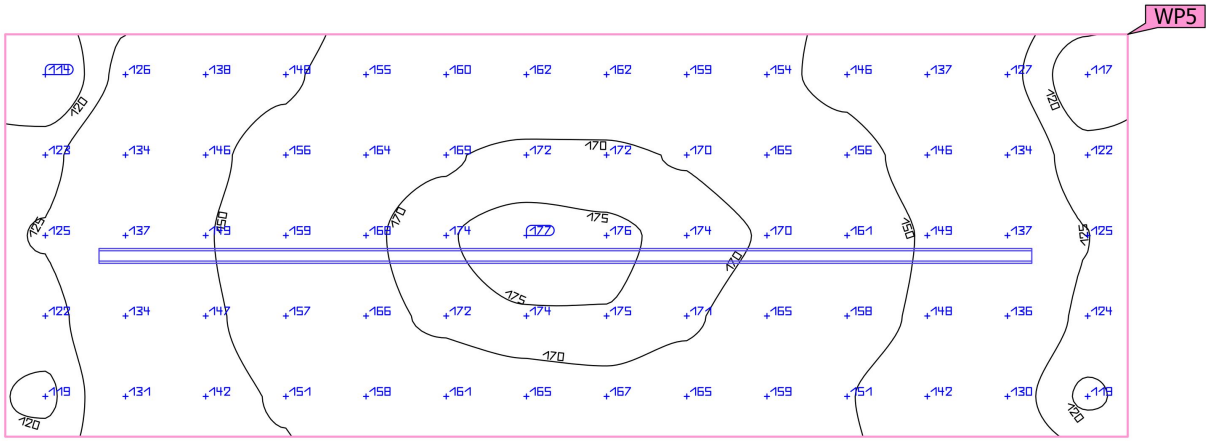
Proprietà	$E_{min.}$	E_{max}	U_d	Indice
Superficie antipanico (corridoio) Illuminamento perpendicolare (adattivo) Altezza: 0.000 m	61.7 lx	124 lx	0.50	AP4

Avvertenze sulla progettazione:
Il calcolo relativo alla scena dell'illuminazione di emergenza è stato effettuato senza tenere in considerazione i mobili presenti.

corridoio (Scena luce 1)

Superficie utile (corridoio)

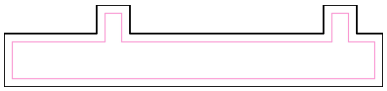


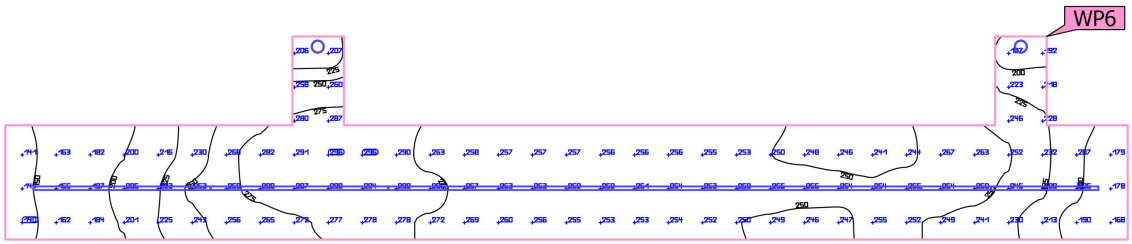


Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie utile (corridoio) Illuminamento perpendicolare Altezza: 0.000 m, Zona margine: 0.300 m	150 lx	114 lx	177 lx	0.76	0.64	WP5

corridoio (Scena luce 1)

Superficie utile (corridoio)

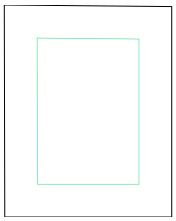


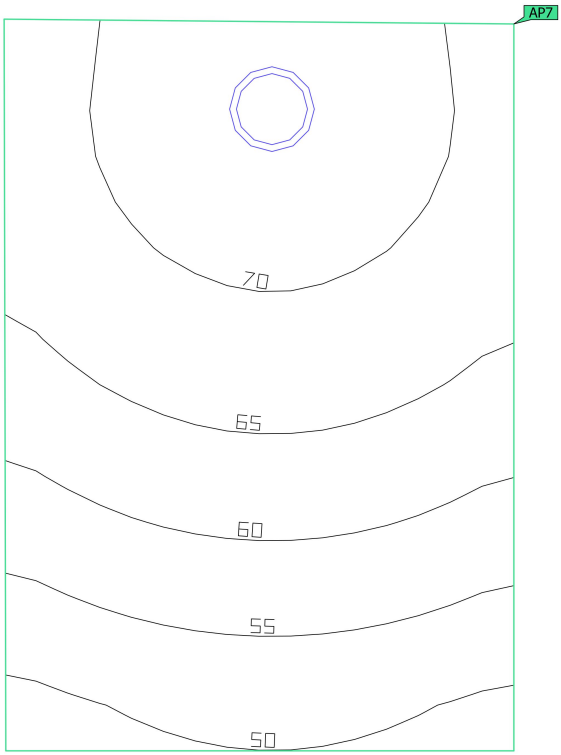


Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie utile (corridoio) Illuminamento perpendicolare Altezza: 0.000 m, Zona margine: 0.300 m	243 lx	140 lx	296 lx	0.58	0.47	WP6

docce (Scena illuminazione di emergenza)

Superficie antipanico (docce)





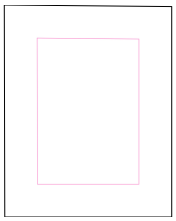
Proprietà	$E_{min.}$	E_{max}	U_d	Indice
Superficie antipanico (docce) Illuminamento perpendicolare (adattivo) Altezza: 0.000 m	47.9 lx	72.4 lx	0.66	AP7

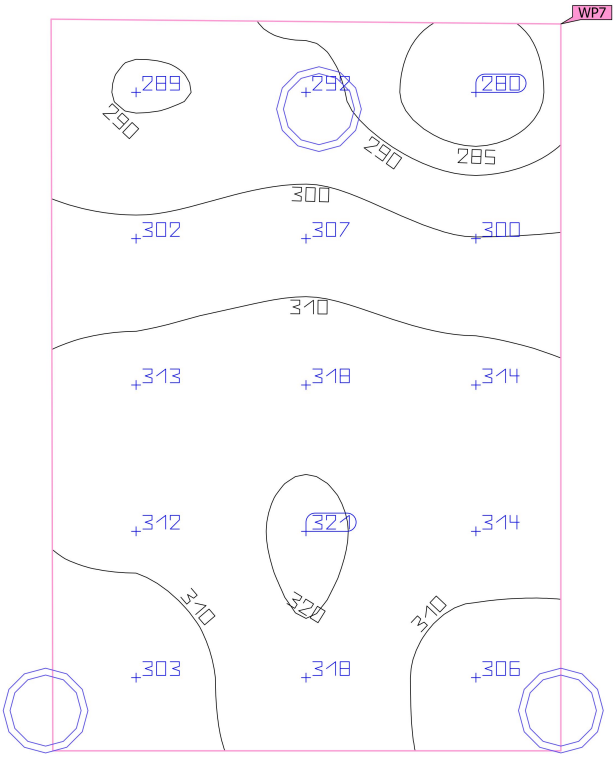
Avvertenze sulla progettazione:
Il calcolo relativo alla scena dell'illuminazione di emergenza è stato effettuato senza tenere in considerazione i mobili presenti.

DIALux

docce (Scena luce 1)

Superficie utile (docce)

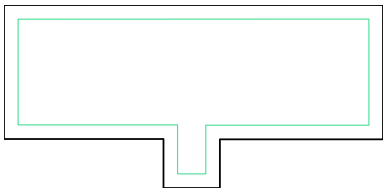


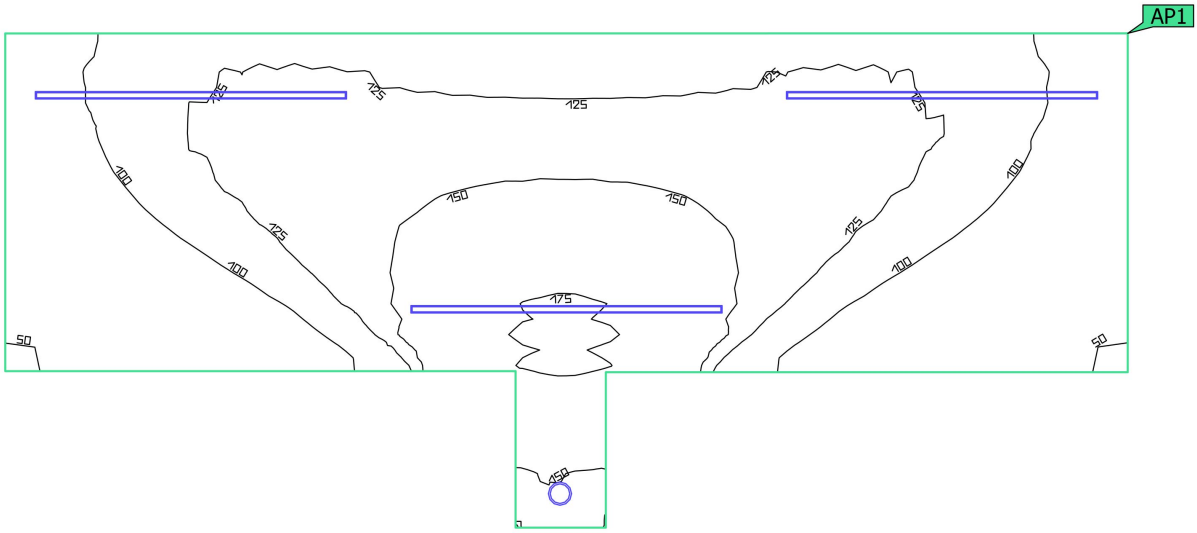


Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie utile (docce) Illuminamento perpendicolare Altezza: 0.000 m, Zona margine: 0.300 m	306 lx	280 lx	321 lx	0.92	0.87	WP7

spogliatoio (Scena illuminazione di emergenza)

Superficie antipanico (spogliatoio)





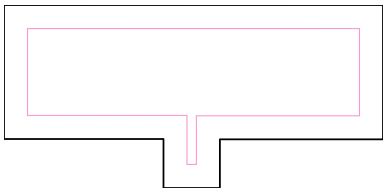
Proprietà	$E_{min.}$	E_{max}	U_d	Indice
Superficie antipanico (spogliatoio) Illuminamento perpendicolare (adattivo) Altezza: 0.000 m	48.2 lx	178 lx	0.27	AP1

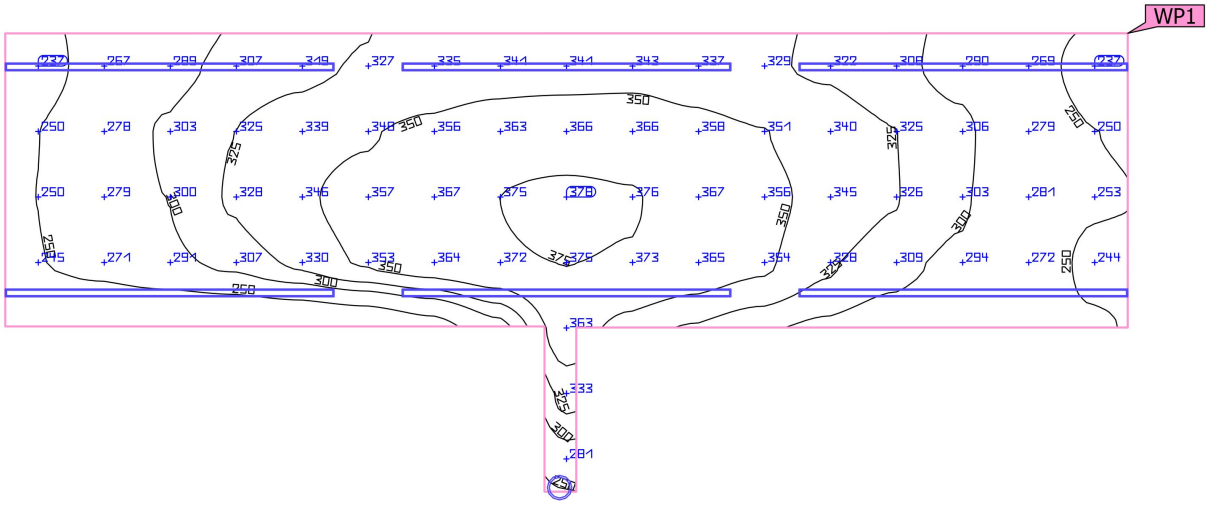
Avvertenze sulla progettazione:
Il calcolo relativo alla scena dell'illuminazione di emergenza è stato effettuato senza tenere in considerazione i mobili presenti.

DIALux

spogliatoio (Scena luce 1)

Superficie utile (spogliatoio)

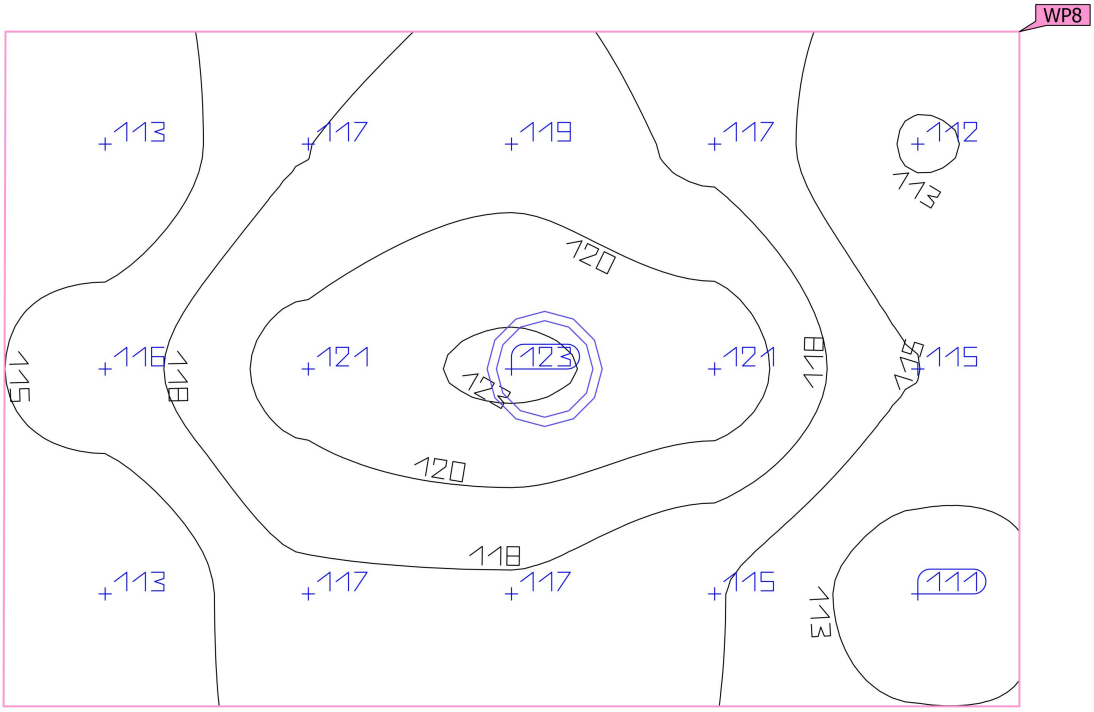




Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie utile (spogliatoio) Illuminamento perpendicolare Altezza: 0.000 m, Zona margine: 0.500 m	320 lx	237 lx	378 lx	0.74	0.63	WP1

wc (Scena luce 1)

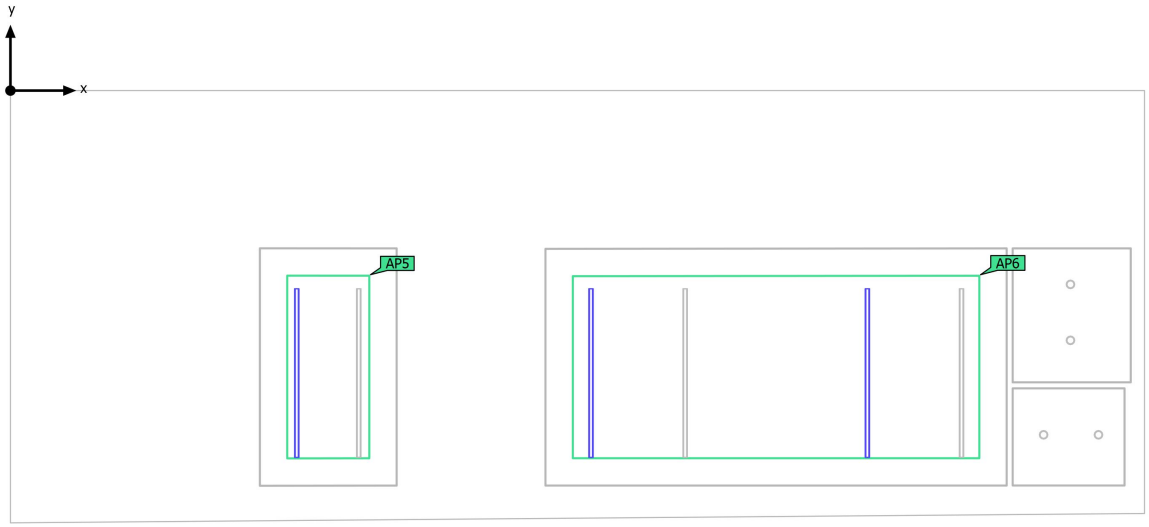
Superficie utile (wc)



Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie utile (wc) Illuminamento perpendicolare Altezza: 0.000 m, Zona margine: 0.000 m	117 lx	111 lx	123 lx	0.95	0.90	WP8

(Scena illuminazione di emergenza)

Oggetti di calcolo



(Scena illuminazione di emergenza)

Oggetti di calcolo

Zone antipanico

Proprietà	$E_{min.}$	E_{max}	U_d	Indice
Superficie antipanico (Ufficio) Illuminamento perpendicolare (adattivo) Altezza: 0.000 m	151 lx	389 lx	0.39	AP5
Superficie antipanico (Ufficio grande) Illuminamento perpendicolare (adattivo) Altezza: 0.000 m	81.3 lx	394 lx	0.21	AP6

Avvertenze sulla progettazione:
Il calcolo relativo alla scena dell'illuminazione di emergenza è stato effettuato senza tenere in considerazione i mobili presenti.

(Scena luce 1)

Oggetti di calcolo

(Scena luce 1)

Oggetti di calcolo

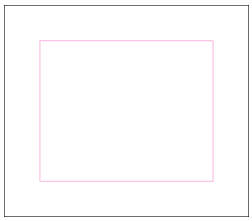
Superfici utili

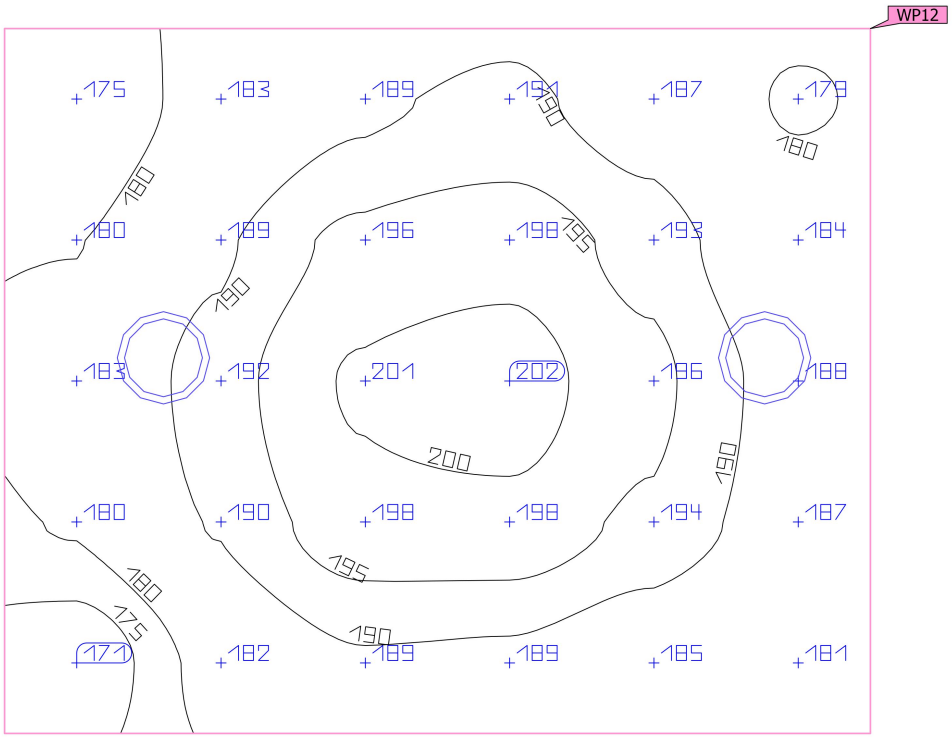
Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie utile (Ufficio) Illuminamento perpendicolare Altezza: 0.000 m, Zona margine: 0.500 m	741 lx	557 lx	858 lx	0.75	0.65	WP2
Superficie utile (Ufficio grande) Illuminamento perpendicolare Altezza: 0.000 m, Zona margine: 0.500 m	562 lx	356 lx	720 lx	0.63	0.49	WP3
Superficie utile (Locale 10) Illuminamento perpendicolare Altezza: 0.000 m, Zona margine: 0.300 m	169 lx	152 lx	185 lx	0.90	0.82	WP4
Superficie utile (bagno) Illuminamento perpendicolare Altezza: 0.000 m, Zona margine: 0.300 m	188 lx	171 lx	202 lx	0.91	0.85	WP12

DIALux

bagno (Scena luce 1)

Superficie utile (bagno)



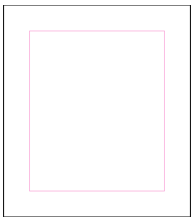


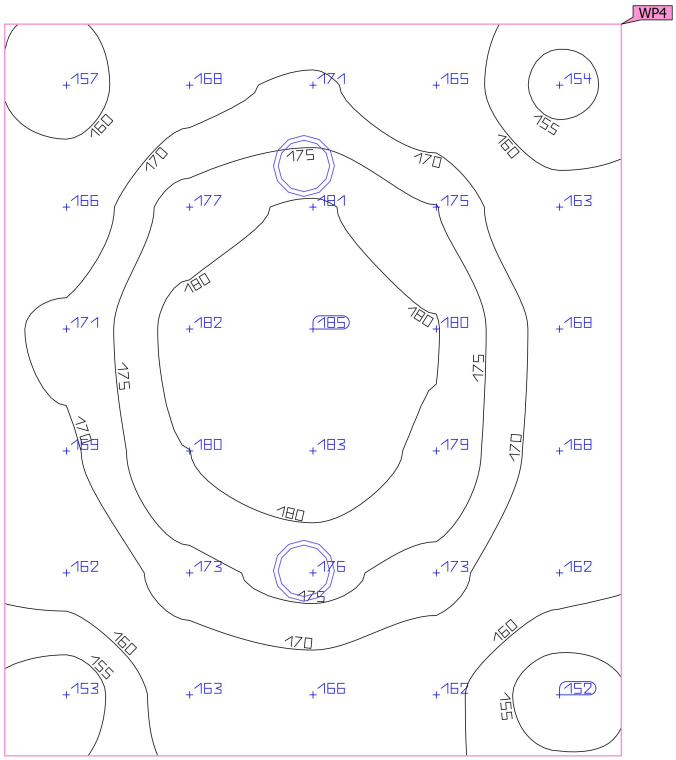
Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie utile (bagno) Illuminamento perpendicolare Altezza: 0.000 m, Zona margine: 0.300 m	188 lx	171 lx	202 lx	0.91	0.85	WP12

DIALux

Locale 10 (Scena luce 1)

Superficie utile (Locale 10)



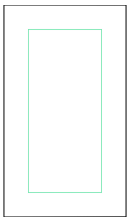


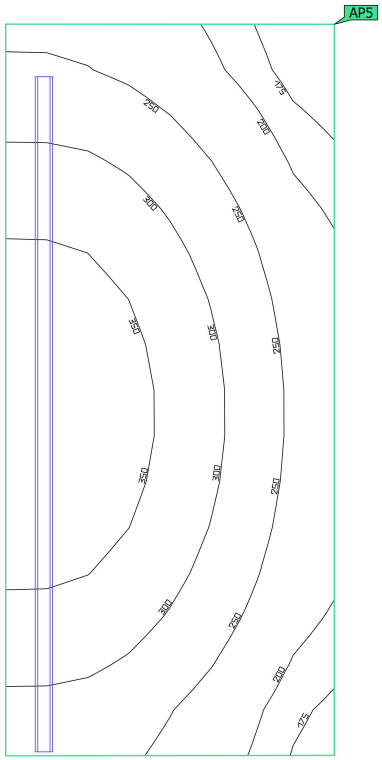
Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie utile (Locale 10) Illuminamento perpendicolare Altezza: 0.000 m, Zona margine: 0.300 m	169 lx	152 lx	185 lx	0.90	0.82	WP4

DIALux

Ufficio (Scena illuminazione di emergenza)

Superficie antipanico (Ufficio)



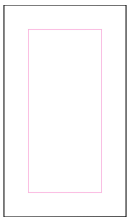


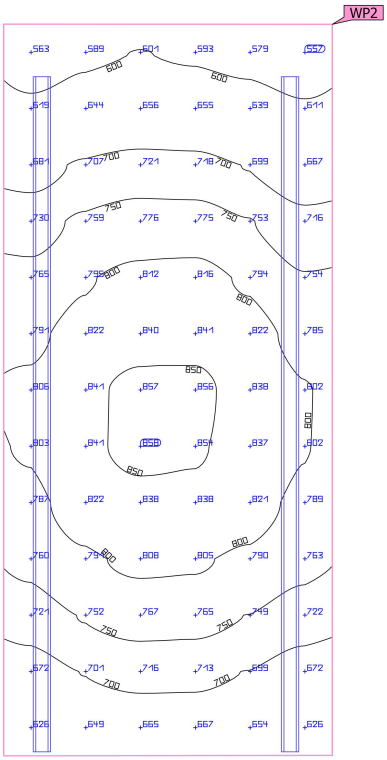
Proprietà	$E_{min.}$	E_{max}	U_d	Indice
Superficie antipanico (Ufficio) Illuminamento perpendicolare (adattivo) Altezza: 0.000 m	151 lx	389 lx	0.39	AP5

Avvertenze sulla progettazione:
Il calcolo relativo alla scena dell'illuminazione di emergenza è stato effettuato senza tenere in considerazione i mobili presenti.

Ufficio (Scena luce 1)

Superficie utile (Ufficio)

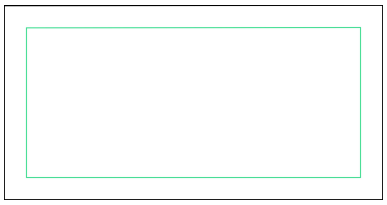


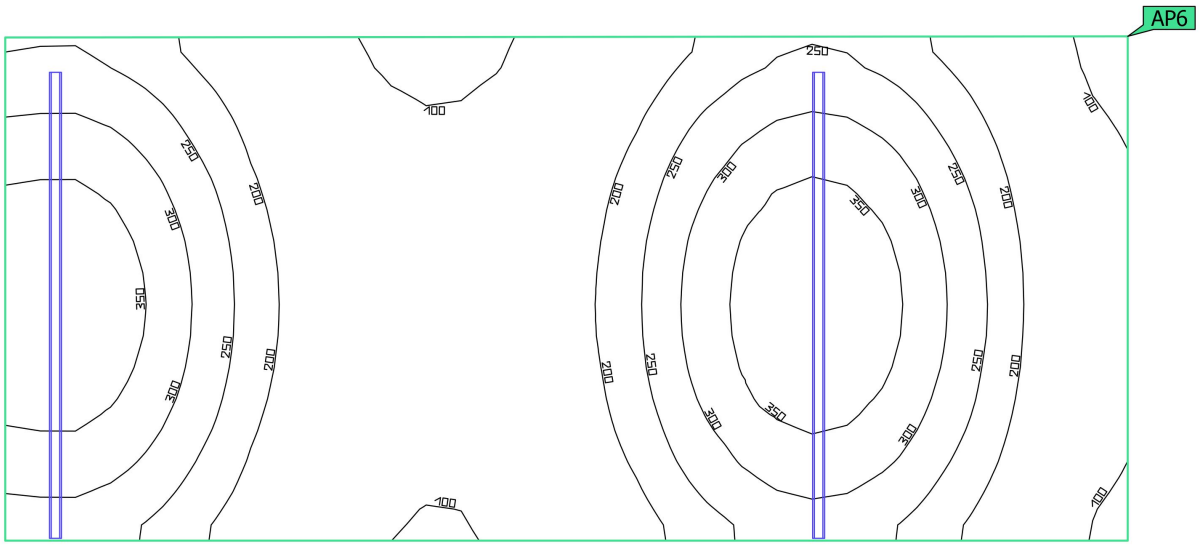


Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie utile (Ufficio) Illuminamento perpendicolare Altezza: 0.000 m, Zona margine: 0.500 m	741 lx	557 lx	858 lx	0.75	0.65	WP2

Ufficio grande (Scena illuminazione di emergenza)

Superficie antipanico (Ufficio grande)





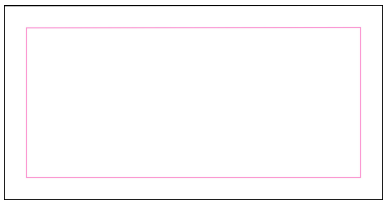
Proprietà	$E_{min.}$	E_{max}	U_d	Indice
Superficie antipanico (Ufficio grande) Illuminamento perpendicolare (adattivo) Altezza: 0.000 m	81.3 lx	394 lx	0.21	AP6

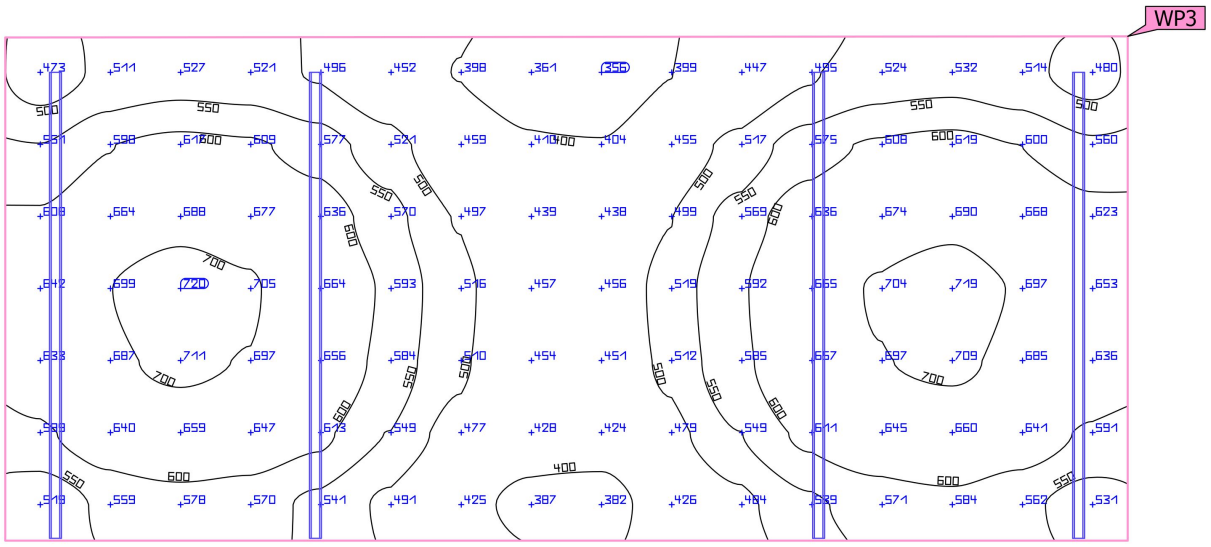
Avvertenze sulla progettazione:
Il calcolo relativo alla scena dell'illuminazione di emergenza è stato effettuato senza tenere in considerazione i mobili presenti.

DIALux

Ufficio grande (Scena luce 1)

Superficie utile (Ufficio grande)

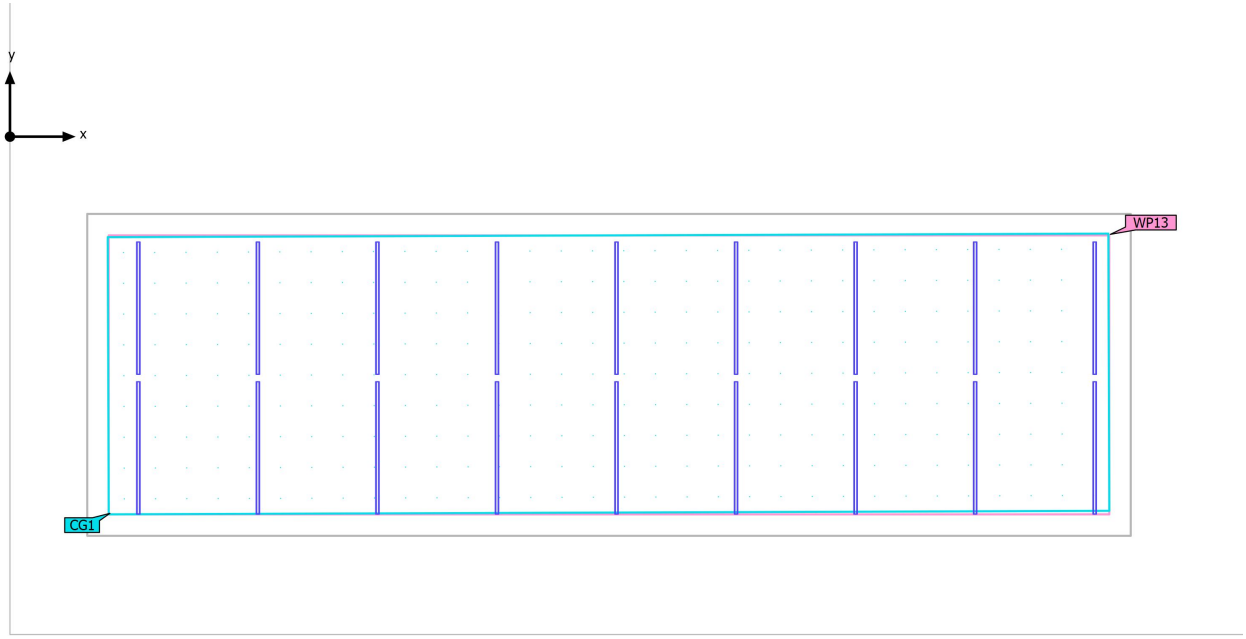




Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie utile (Ufficio grande) Illuminamento perpendicolare Altezza: 0.000 m, Zona margine: 0.500 m	562 lx	356 lx	720 lx	0.63	0.49	WP3

(Scena luce 1)

Oggetti di calcolo



(Scena luce 1)

Oggetti di calcolo

Superfici utili

Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Sala Prove Illuminamento perpendicolare Altezza: 0.000 m, Zona margine: 0.500 m	427 lx	280 lx	493 lx	0.66	0.57	WP13

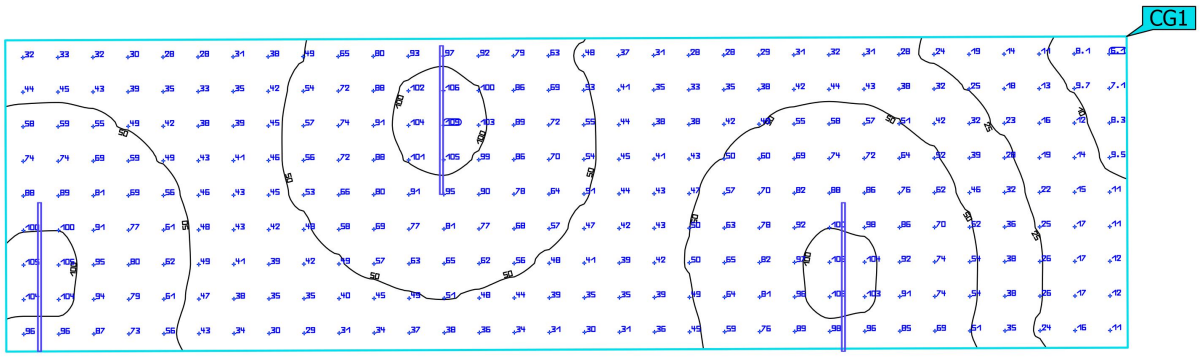
Superfici di calcolo

Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie di calcolo 1 Illuminamento perpendicolare Altezza: 0.000 m	427 lx	282 lx	492 lx	0.66	0.57	CG1

DIALux

Sala Prove (Scena illuminazione di emergenza)

Superficie di calcolo 1



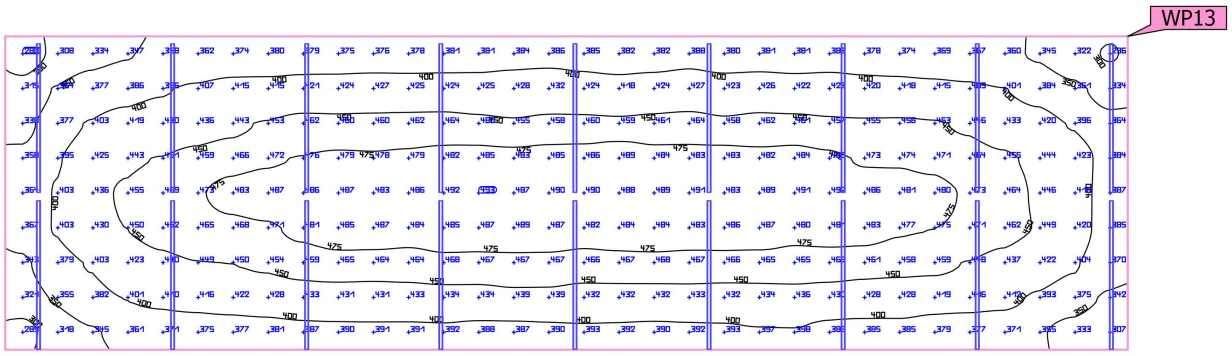
Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie di calcolo 1 Illuminamento perpendicolare Altezza: 0.000 m	54.7 lx	6.07 lx	109 lx	0.11	0.056	CG1

Avvertenze sulla progettazione:
Il calcolo relativo alla scena dell'illuminazione di emergenza è stato effettuato senza tenere in considerazione i mobili presenti.

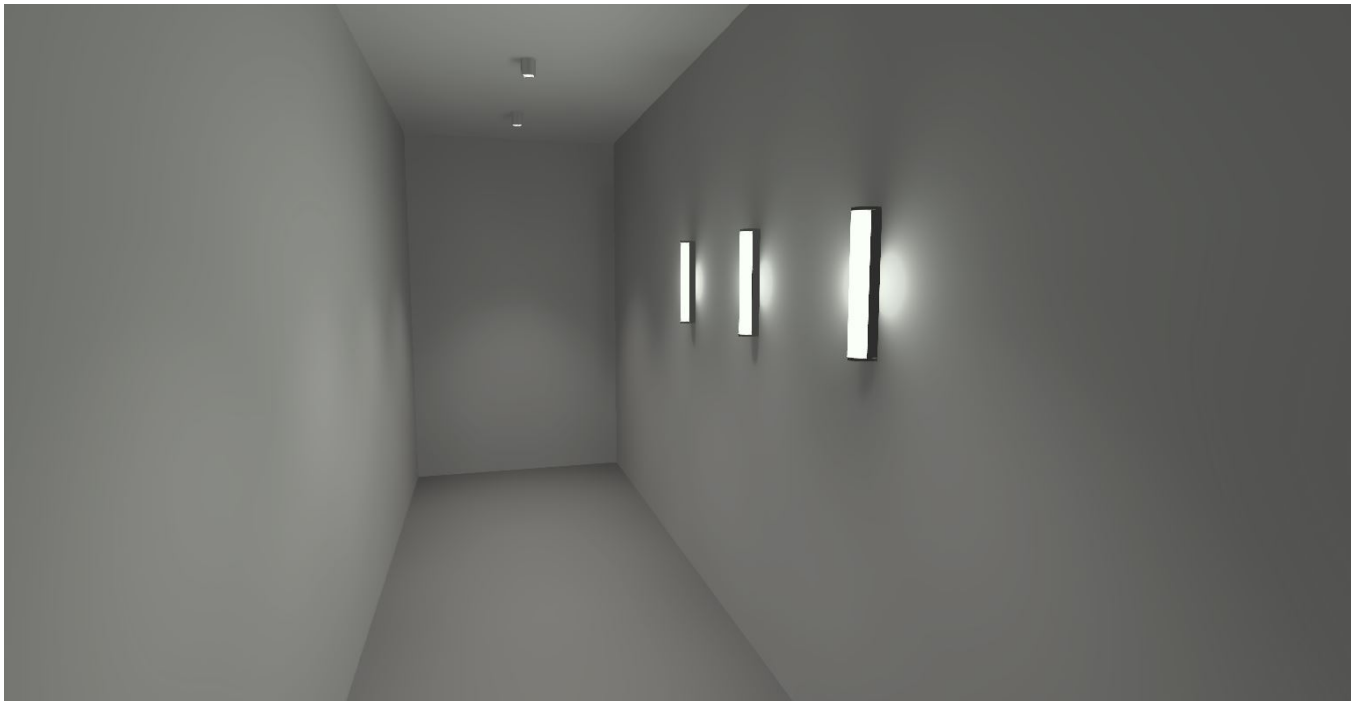
DIALux

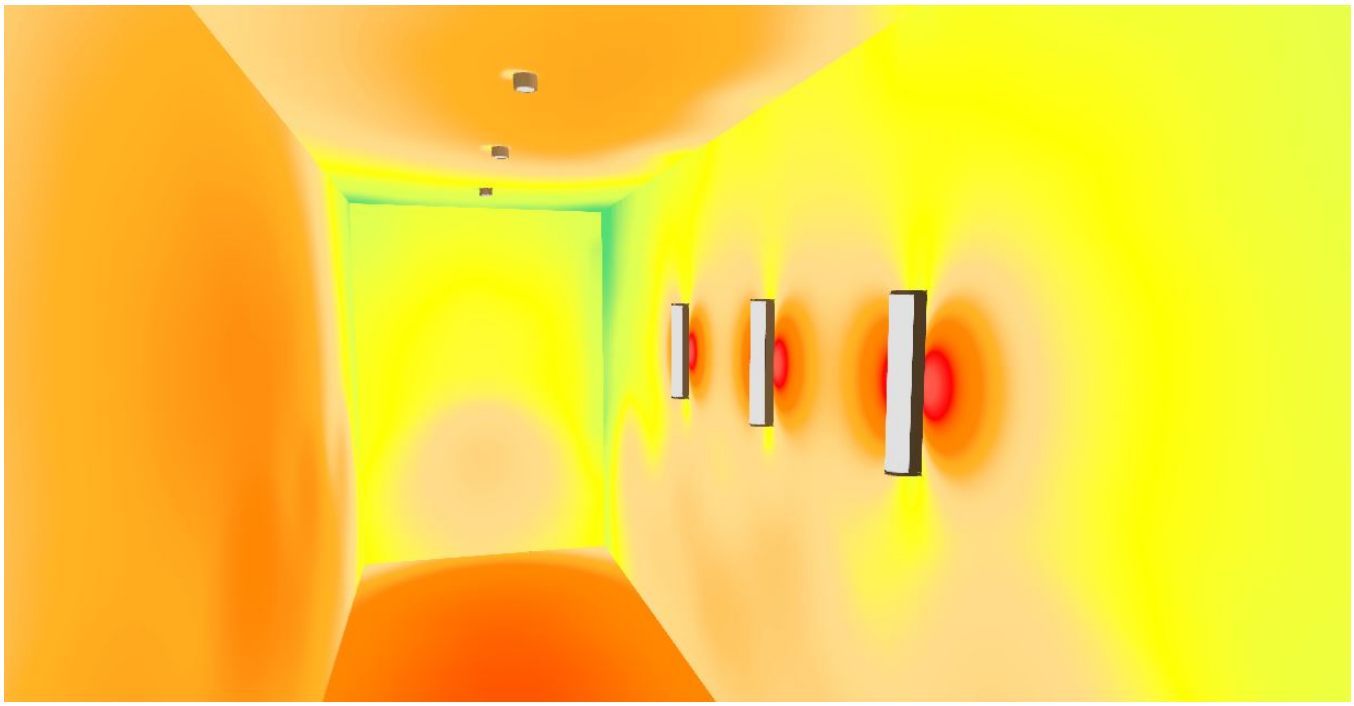
Sala Prove (Scena luce 1)

Sala Prove



Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Sala Prove Illuminamento perpendicolare Altezza: 0.000 m, Zona margine: 0.500 m	427 lx	280 lx	493 lx	0.66	0.57	WP13





Lista lampade

Φ_{totale}	P_{totale}	Efficienza	$\Phi_{Illuminazione\ di\ emergenza}$	$P_{Illuminazione\ di\ emergenza}$
11985 lm	142.3 W	84.2 lm/W	2374 lm	28.0 W

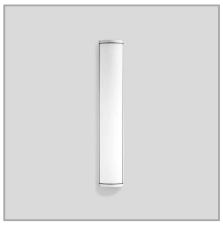
Pz.	Produttore	Articolo No.	Nome articolo	P	Φ	Efficienza
3	BEGA	50608.1K3	LED 14,6W	14.6 W	1324 lm	90.7 lm/W
2	KarizmaLuce		DEA AMATA M_930_40_gold matt reflector	14.0 W	1187 lm	84.8 lm/W
				14.0 W	1187 lm (100 %)	–
2	KarizmaLuce		DEA AMATA M_930_40_gold matt reflector	14.0 W	1187 lm	84.8 lm/W
5	KarizmaLuce		DEA AMATA S_930_60_white matt reflector	8.5 W	653 lm	76.9 lm/W

DIALux

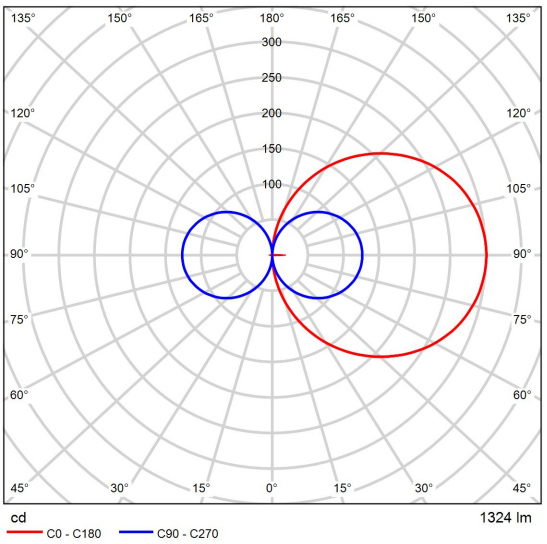
Scheda tecnica prodotto

BEGA - LED 14,6W

BEGA



Articolo No.	50608.1K3
P	14.6 W
$\Phi_{Lampadina}$	–
$\Phi_{Lampada}$	1324 lm
η	–
Efficienza	90.7 lm/W
CCT	3000 K
CRI	80

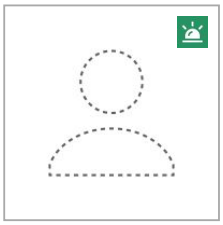


CDL polare

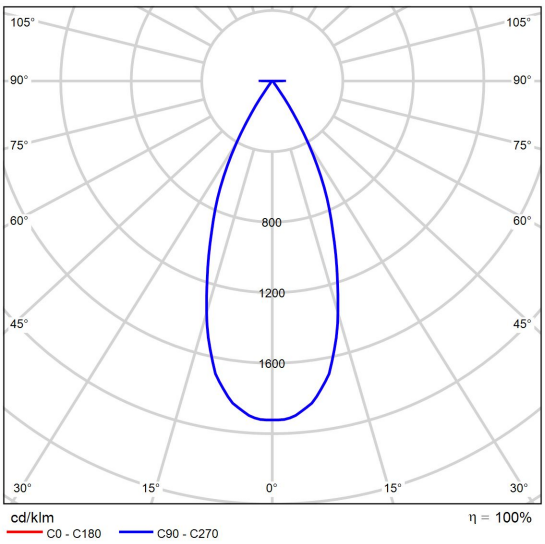
BEGA Wandleuchte 50608.1K3 für den Innenbereich. Freistrahlendes Licht.
LED, 14,6 W Leuchten-Anschlussleistung, Leuchten-Lichtstrom 1325 lm,
Farbtemperatur 3000 K. Farbwiedergabeindex (CRI) > 90.
Mit austauschbarem BEGA LED-Modul mit Übertemperaturschutz und einer
Lebenserwartung von mindestens 50.000 Betriebsstunden.
20-jährige Nachliefergarantie auf das LED-Modul und die Verschleißteile.
Mit LED-Netzteil 220-240 V, 0/50-60 Hz. Schutzart IP 44.
Leuchtengehäuse aus Aluminiumguss und Aluminium.
Oberfläche Einbrennlackierung weiß. Mundgeblasenes seidenmattes Opalglas.
Zwei Leitungseinführungen zur Durchverdrahtung der Netzanschlussleitung
bis Ø 11 mm, max. 5 x 1,5 qmm. Abmessungen: 500 x 90 x 80 mm.

Scheda tecnica prodotto

KarizmaLuce - DEA AMATA M_930_40_gold matt reflector



P	14.0 W
$P_{Illuminazione\ di\ emergenza}$	14.0 W
$\Phi_{Lampadina}$	1185 lm
$\Phi_{Lampada}$	1187 lm
$\Phi_{Illuminazione\ di\ emergenza}$	1187 lm
η	100.20 %
Efficienza	84.8 lm/W
CCT	3124 K
CRI	100
ELF	100 %



CDL polare

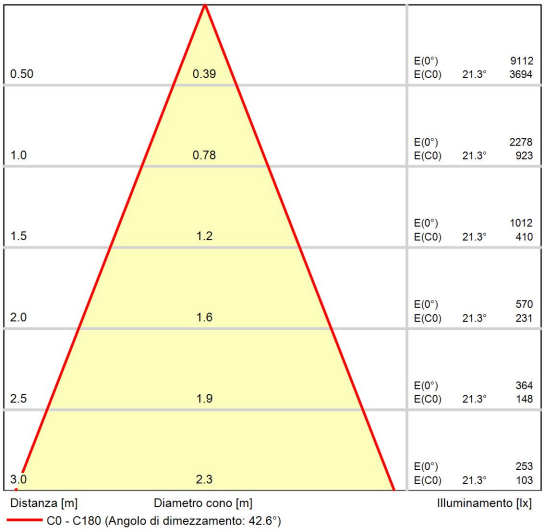


Diagramma conico

DIALux

Scheda tecnica prodotto

KarizmaLuce - DEA AMATA M_930_40_gold matt reflector

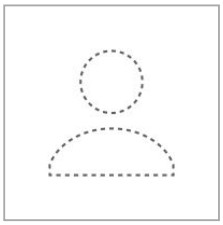
γ	C0°	C90°	C0°- C360°
0°-180°	2278.01	2278.01	2278.01
60°-90°	1.33	1.33	1.33

Tabella valori di abbagliamento [cd]

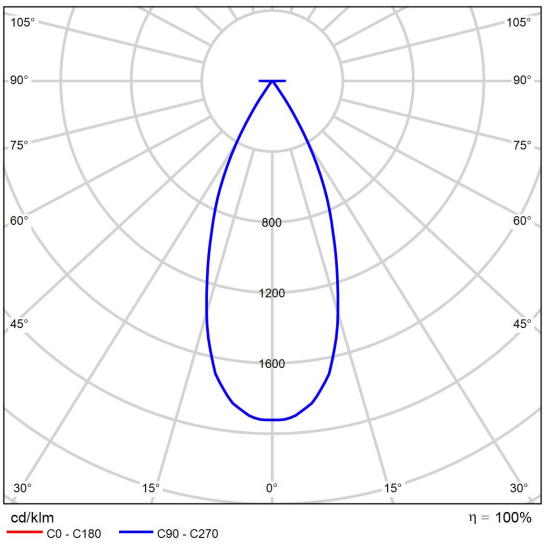
DIALux

Scheda tecnica prodotto

KarizmaLuce - DEA AMATA M_930_40_gold matt reflector



P	14.0 W
$\Phi_{Lampadina}$	1185 lm
$\Phi_{Lampada}$	1187 lm
η	100.20 %
Efficienza	84.8 lm/W
CCT	3124 K
CRI	100



CDL polare

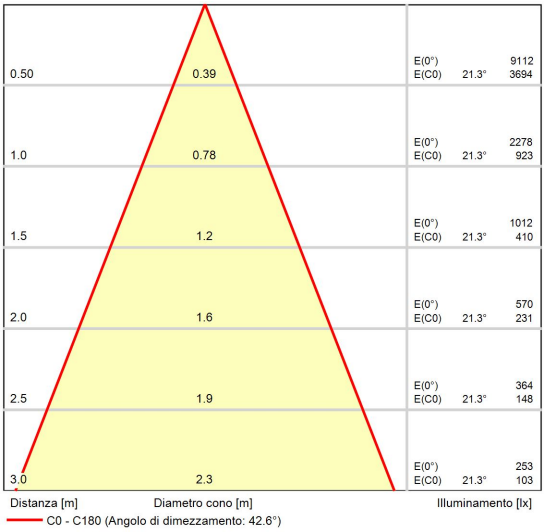
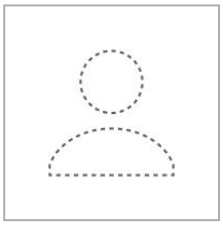


Diagramma conico

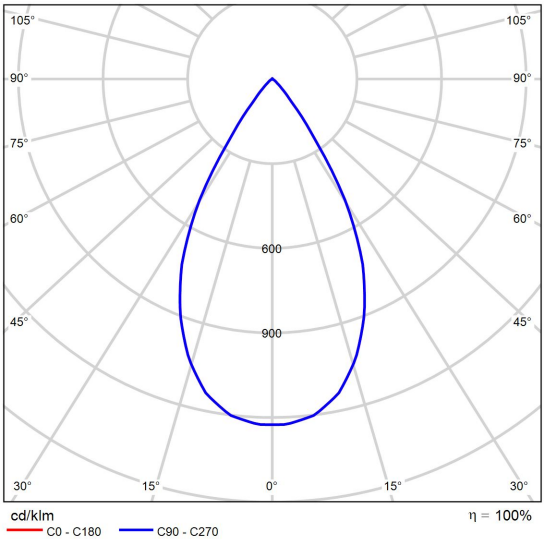
DIALux

Scheda tecnica prodotto

KarizmaLuce - DEA AMATA S_930_60_white matt reflector



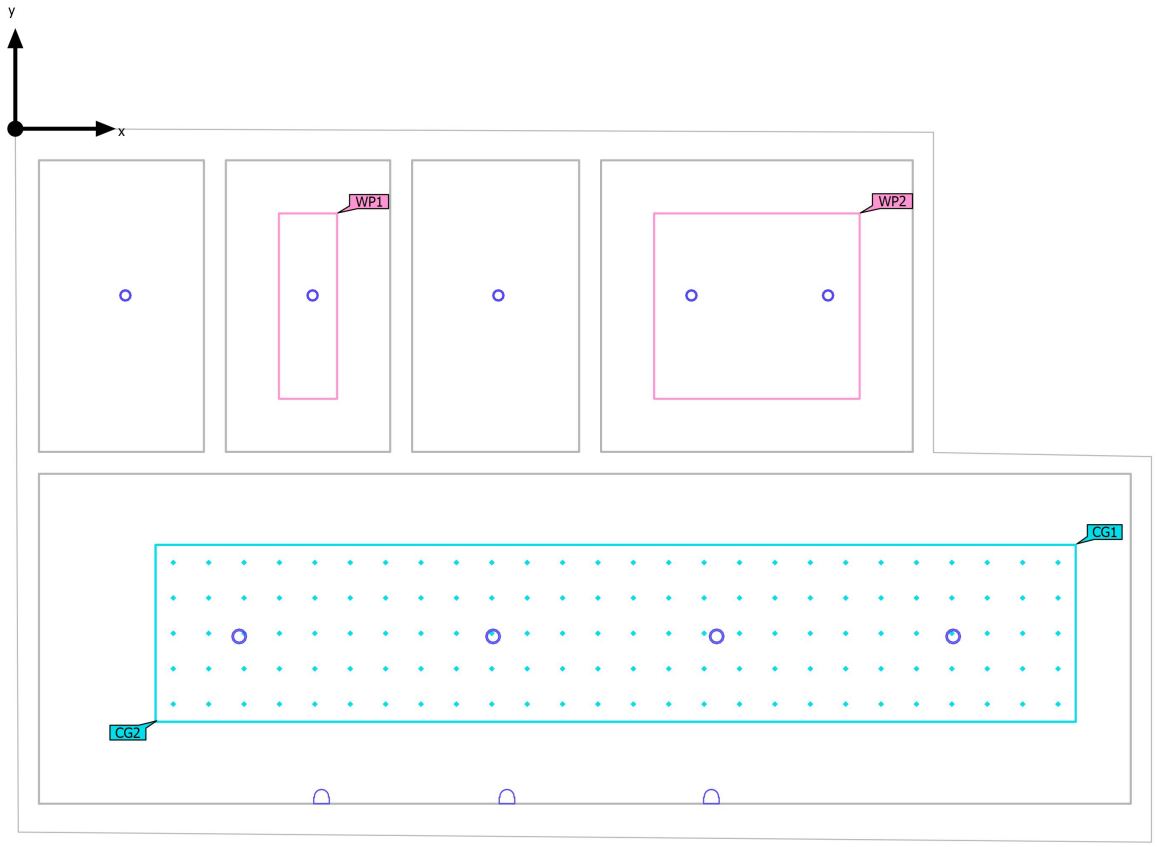
P	8.5 W
$\Phi_{Lampadina}$	652 lm
$\Phi_{Lampada}$	653 lm
η	100.21 %
Efficienza	76.9 lm/W
CCT	3079 K
CRI	100



CDL polare

(Scena luce 1)

Oggetti di calcolo



(Scena luce 1)

Oggetti di calcolo

Superfici utili

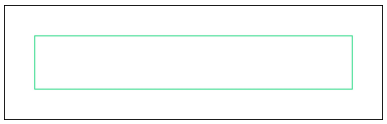
Proprietà	Ē (Nominale)	$E_{min.}$	E_{max}	U_o (g_1) (Nominale)	g_2	Indice
Superficie utile (Locale 3) Illuminamento perpendicolare Altezza: 1.000 m, Zona margine: 0.300 m	270 lx	212 lx	299 lx	0.79	0.71	WP1
Superficie utile (Locale 5) Illuminamento perpendicolare Altezza: 1.000 m, Zona margine: 0.300 m	391 lx	299 lx	466 lx	0.76	0.64	WP2

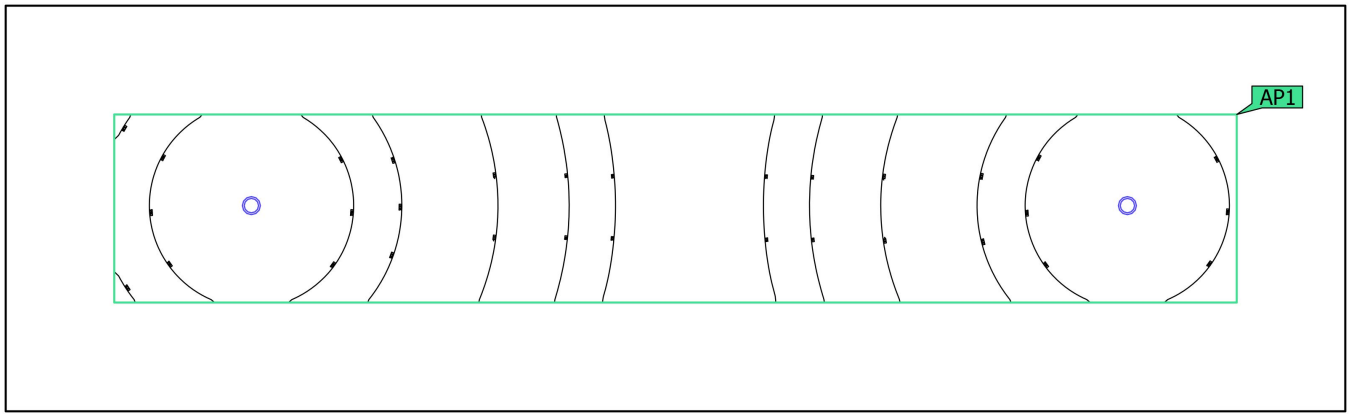
Superfici di calcolo

Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie di calcolo 1 Illuminamento perpendicolare Altezza: 0.000 m	502 lx	285 lx	605 lx	0.57	0.47	CG1
Superficie di calcolo 2 Illuminamento perpendicolare Altezza: 1.000 m	761 lx	319 lx	1039 lx	0.42	0.31	CG2

Edificio 1 · Piano 1 · Locale 1 (Scena illuminazione di emergenza)

Superficie antipanico (Locale 1)



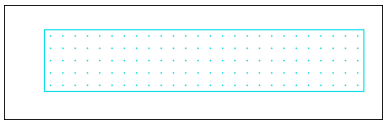


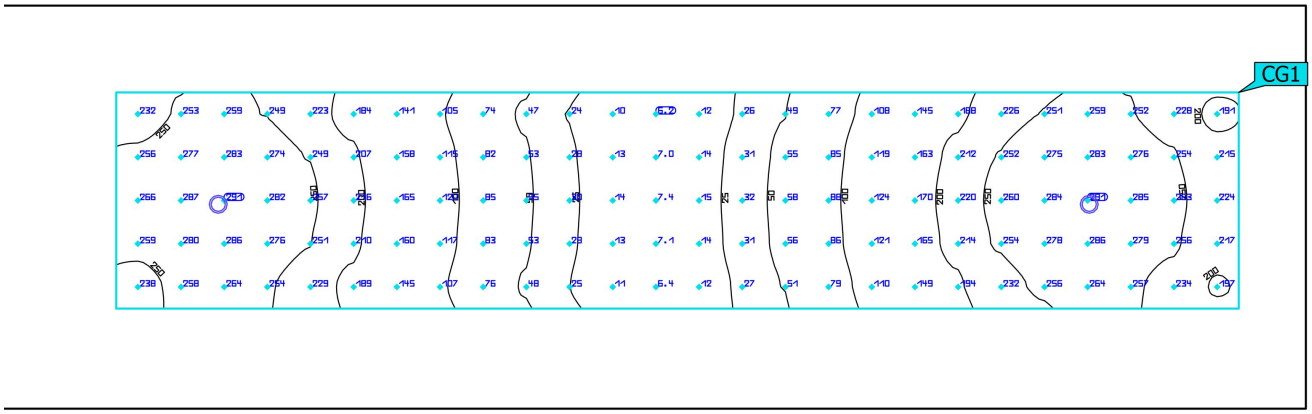
Proprietà	$E_{min.}$	E_{max}	U_d	Indice
Superficie antipanico (Locale 1) Illuminamento perpendicolare (adattivo) Altezza: 0.000 m	6.10 lx	291 lx	0.021	AP1

DIALux

(Scena illuminazione di emergenza)

Superficie di calcolo 1



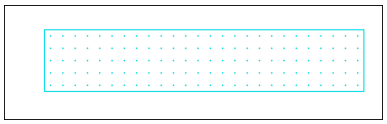


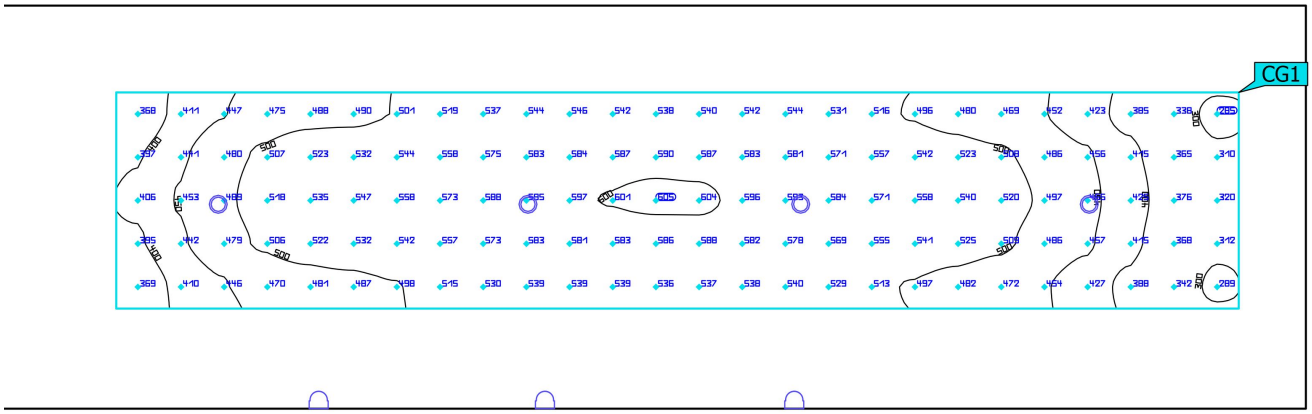
Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie di calcolo 1 Illuminamento perpendicolare Altezza: 0.000 m	159 lx	6.24 lx	291 lx	0.039	0.021	CG1

DIALux

(Scena luce 1)

Superficie di calcolo 1

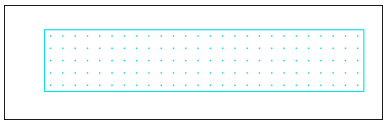


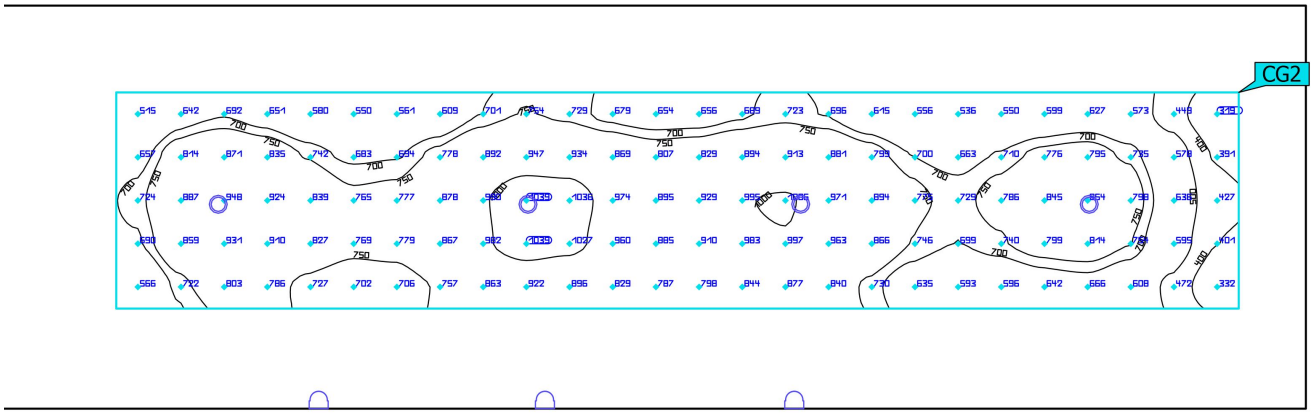


Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie di calcolo 1 Illuminamento perpendicolare Altezza: 0.000 m	502 lx	285 lx	605 lx	0.57	0.47	CG1

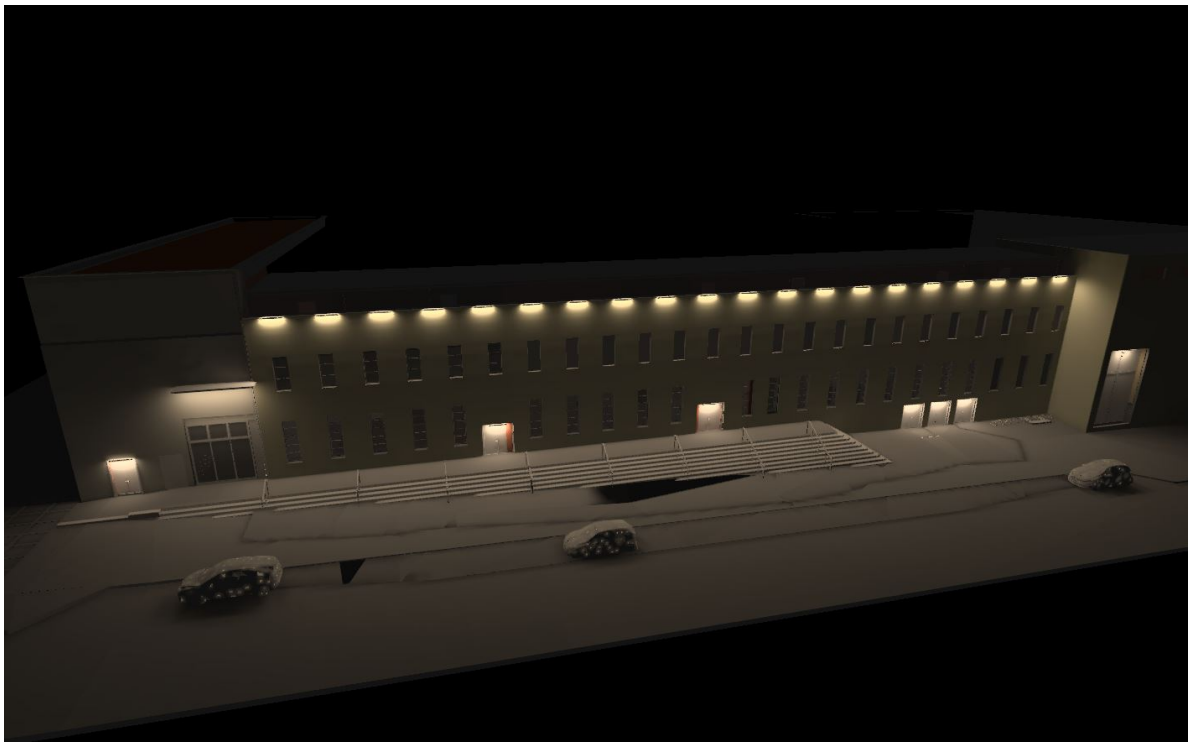
Edificio 1 · Piano 1 · Locale 1 (Scena luce 1)

Superficie di calcolo 2





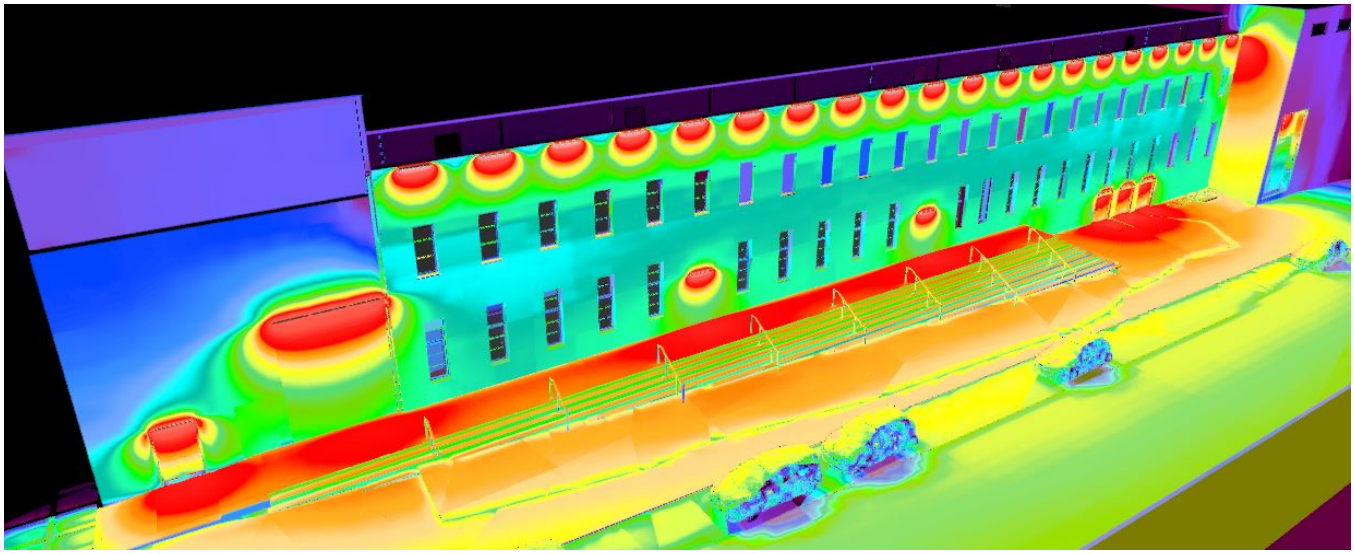
Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie di calcolo 2 Illuminamento perpendicolare Altezza: 1.000 m	761 lx	319 lx	1039 lx	0.42	0.31	CG2

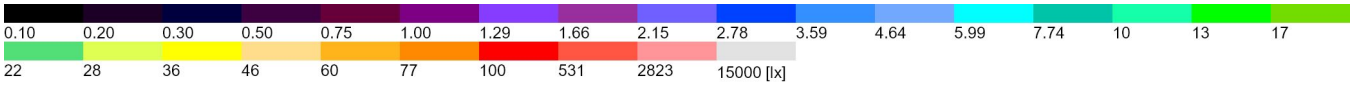


Illuminazione su Via Petrarca

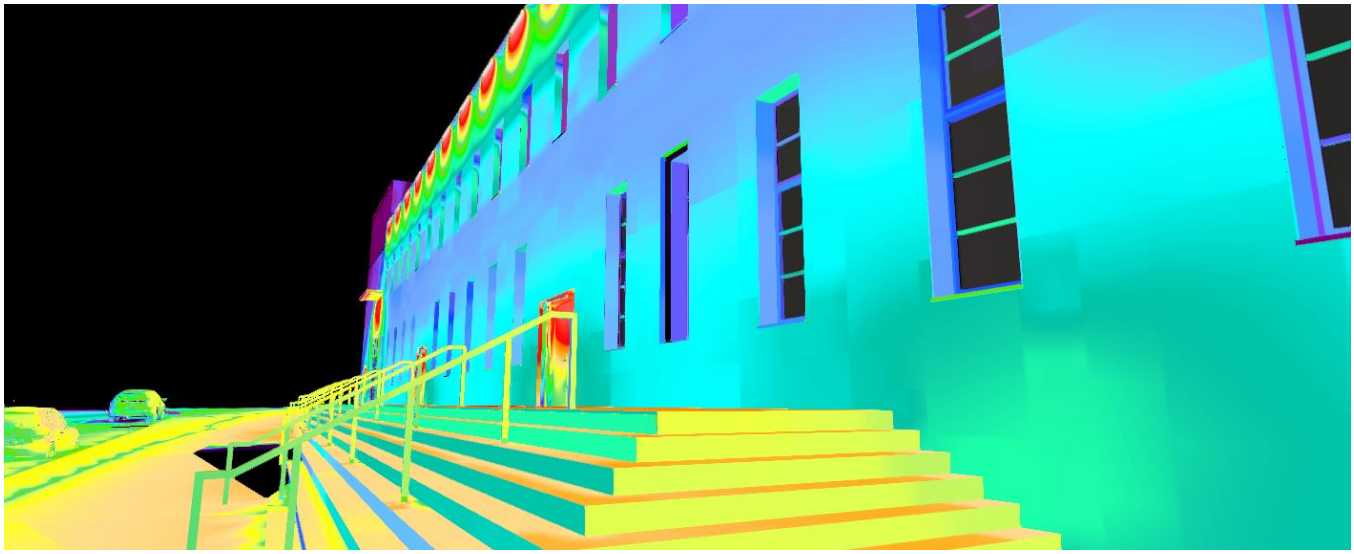
Created with DIALux

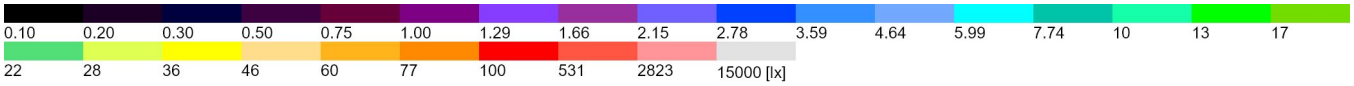
Immagini

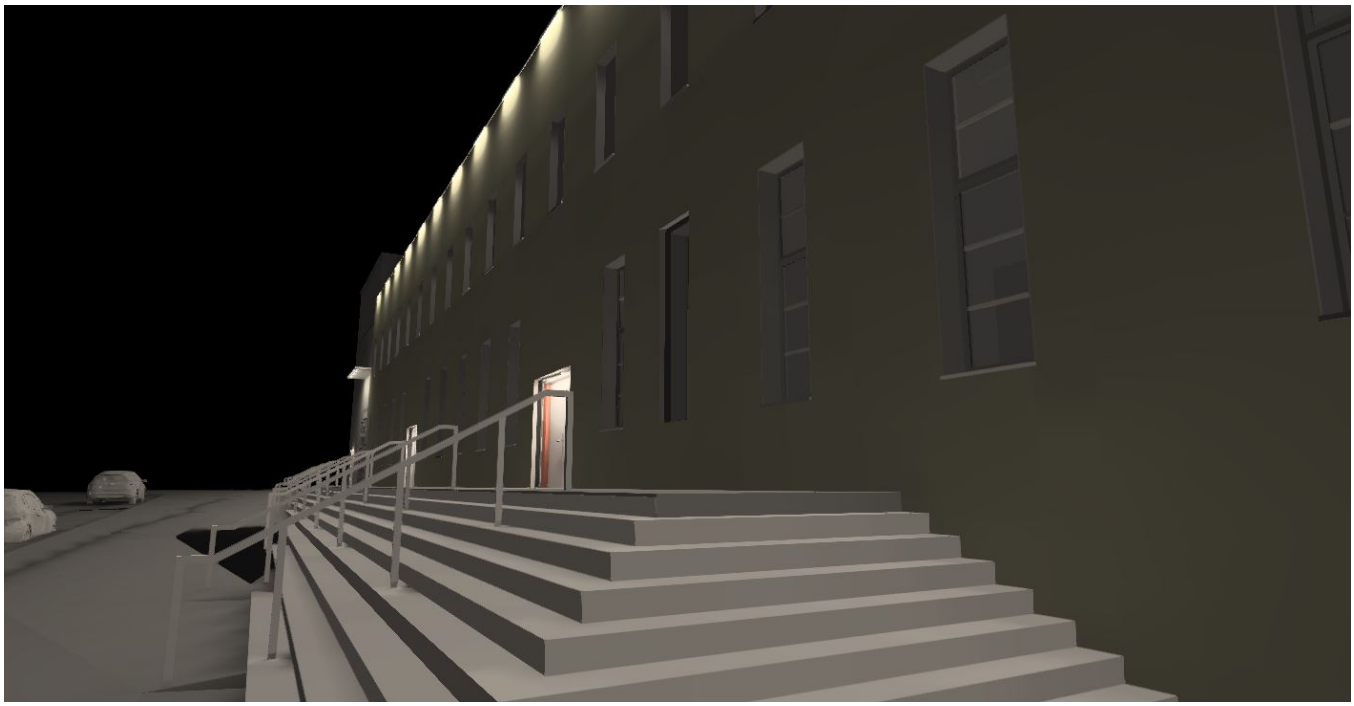



0.10 0.20 0.30 0.50 0.75 1.00 1.29 1.66 2.15 2.78 3.59 4.64 5.99 7.74 10 13 17
22 28 36 46 60 77 100 531 2823 15000 [lx]

Immagini



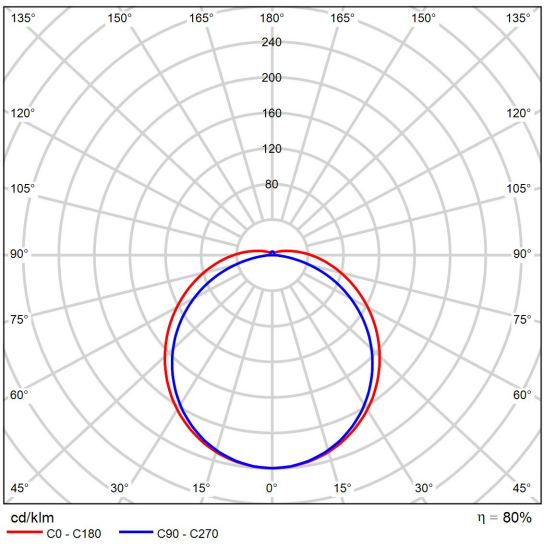

0.10
0.20
0.30
0.50
0.75
1.00
1.29
1.66
2.15
2.78
3.59
4.64
5.99
7.74
10
13
17
22
28
36
46
60
77
100
531
2823
15000 [lx]



Scheda tecnica prodotto

Indelague – Roxo Lighting - TTP 50 L1180 TOP 830 LO

Articolo No.	90472L120
P	21.4 W
$\Phi_{Lampadina}$	3768 lm
$\Phi_{Lampada}$	3026 lm
η	80.32 %
Efficienza	141.3 lm/W
CCT	3000 K
CRI	80

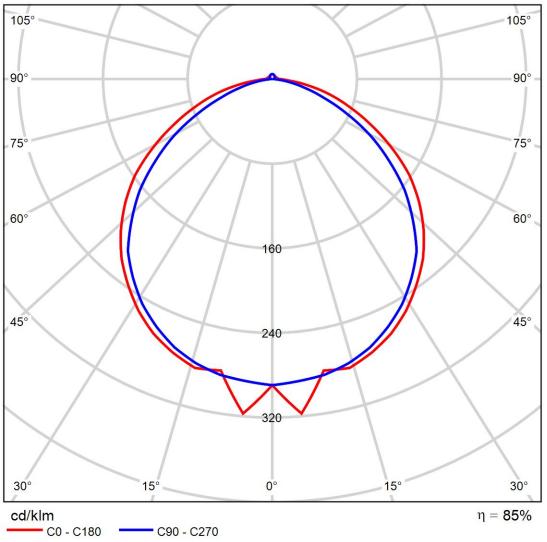


CDL polare

Scheda tecnica prodotto

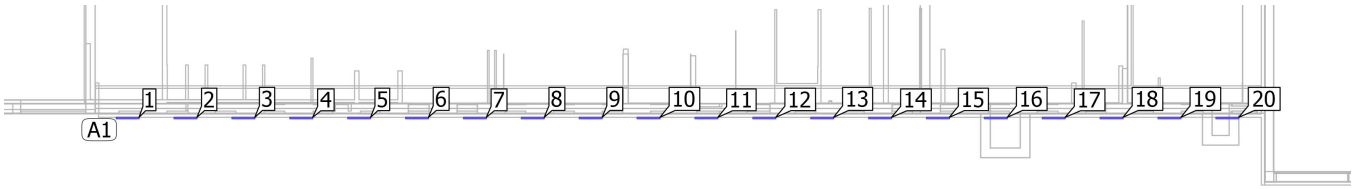
Indelague – Roxo Lighting - TTP 70 L1180 TUP 830 HO

Articolo No.	90475L120
P	50.6 W
$\Phi_{Lampadina}$	8292 lm
$\Phi_{Lampada}$	7074 lm
η	85.31 %
Efficienza	139.7 lm/W
CCT	3000 K
CRI	80

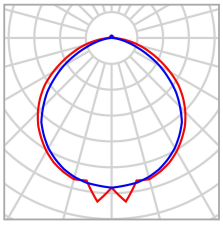


CDL polare

Disposizione lampade



Disposizione lampade



Produttore	Indelague – Roxo Lighting
Articolo No.	90475L120
Nome articolo	TTP 70 L1180 TUP 830 HO
Dotazione	1x LED 830 - 01

P	50.6 W
$\Phi_{Lampada}$	7074 lm

20 x Indelague – Roxo Lighting TTP 70 L1180 TUP 830 HO

Tipo	Disposizione in fila
1ª lampada (X/Y/Z)	25.960 m / 17.713 m / 10.350 m
direzione X	20 Pz., Centro - centro, 2.998 m
Disposizione	A1

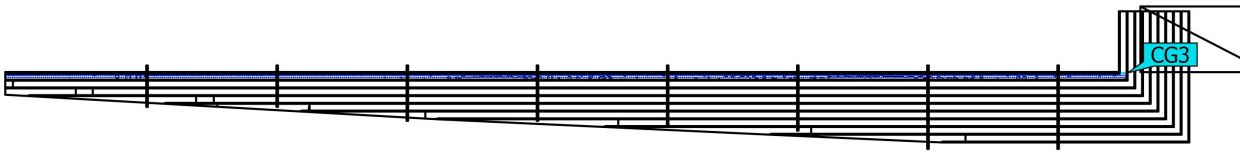
X	Y	Altezza di montaggio	Lampada
25.960 m	17.713 m	10.350 m	1
28.958 m	17.713 m	10.349 m	2
31.956 m	17.713 m	10.348 m	3
34.954 m	17.713 m	10.348 m	4
37.952 m	17.713 m	10.347 m	5
40.950 m	17.713 m	10.346 m	6
43.948 m	17.713 m	10.346 m	7
46.946 m	17.713 m	10.345 m	8
49.944 m	17.713 m	10.344 m	9
52.942 m	17.713 m	10.344 m	10
55.940 m	17.713 m	10.343 m	11
58.938 m	17.713 m	10.342 m	12
61.936 m	17.713 m	10.342 m	13

Disposizione lampade

X	Y	Altezza di montaggio	Lampada
64.934 m	17.713 m	10.341 m	14
67.932 m	17.713 m	10.340 m	15
70.930 m	17.713 m	10.340 m	16
73.928 m	17.713 m	10.339 m	17
76.926 m	17.713 m	10.338 m	18
79.924 m	17.713 m	10.338 m	19
82.922 m	17.713 m	10.337 m	20

(Scena luce 3)

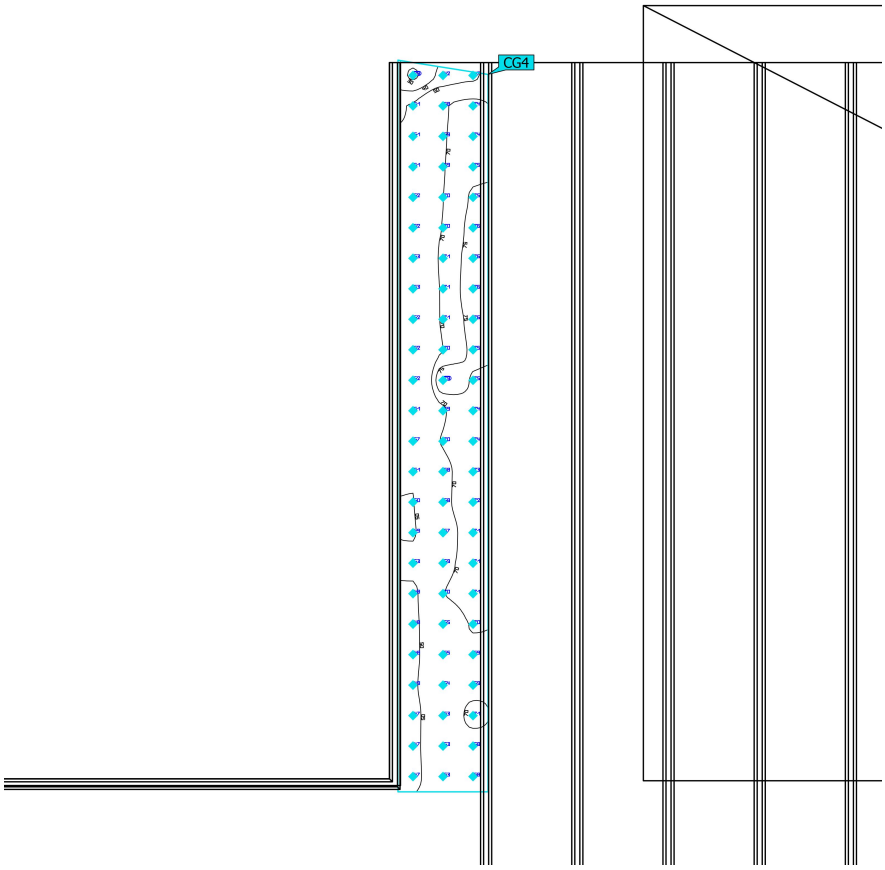
Superficie di calcolo 8



Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie di calcolo 8 Illuminamento perpendicolare Altezza: 1.485 m	50.1 lx	2.04 lx	95.9 lx	0.041	0.021	CG3

(Scena luce 3)

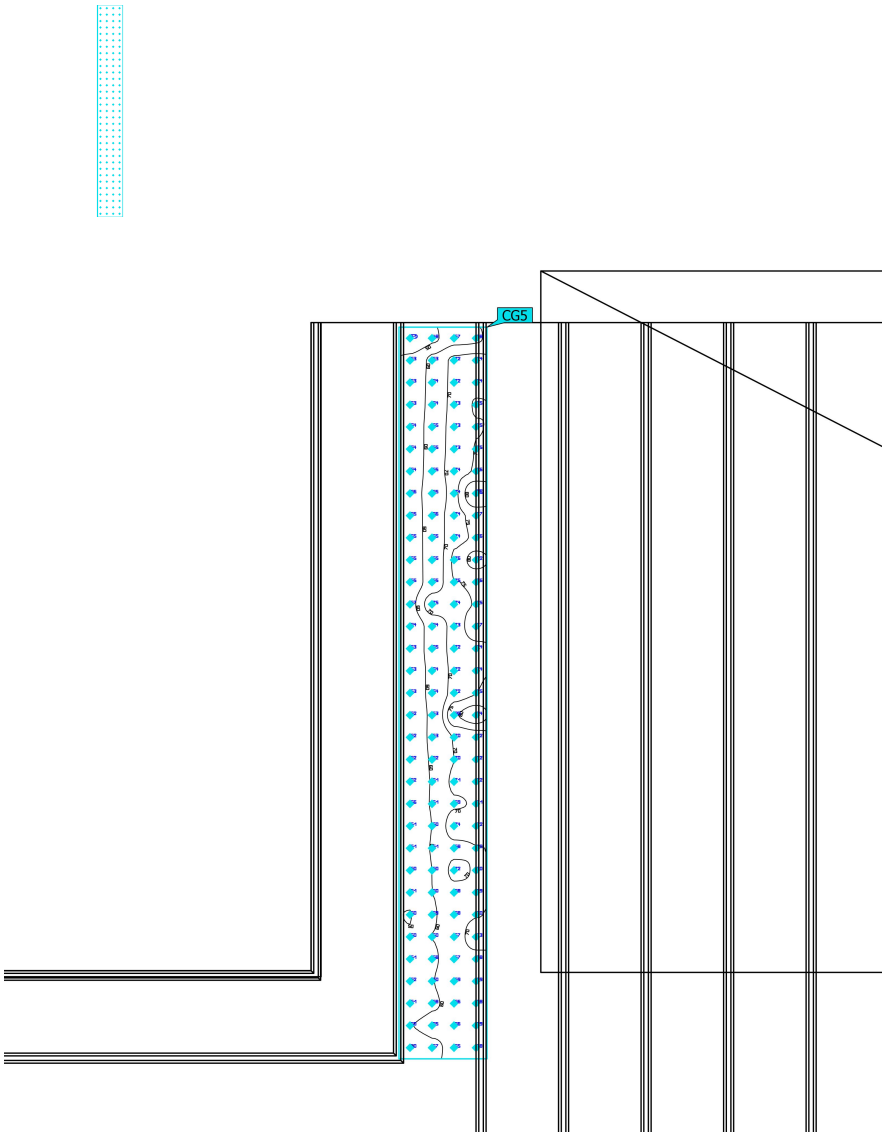
Superficie di calcolo 9



Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie di calcolo 9 Illuminamento perpendicolare Altezza: 1.485 m	62.9 lx	28.8 lx	78.9 lx	0.46	0.37	CG4

(Scena luce 3)

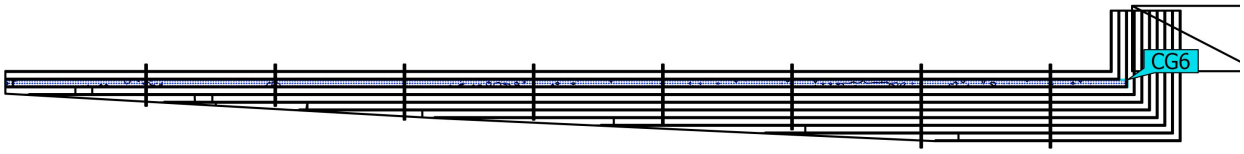
Superficie di calcolo 11



Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie di calcolo 11 Illuminamento perpendicolare Altezza: 1.320 m	64.8 lx	40.8 lx	86.3 lx	0.63	0.47	CG5

(Scena luce 3)

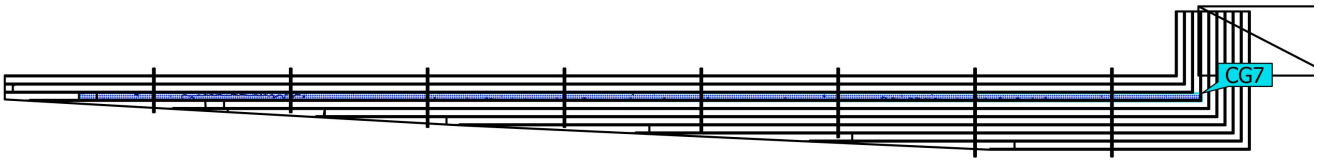
Superficie di calcolo 12



Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie di calcolo 12 Illuminamento perpendicolare Altezza: 1.378 m	63.1 lx	24.7 lx	90.4 lx	0.39	0.27	CG6

(Scena luce 3)

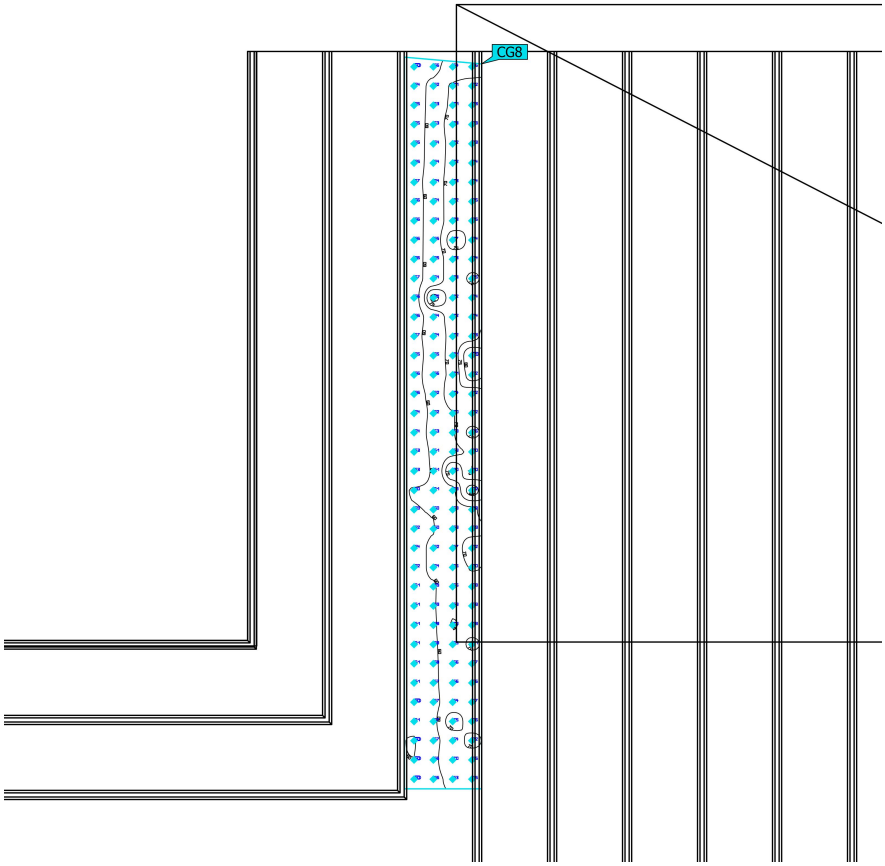
Superficie di calcolo 14



Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie di calcolo 14 Illuminamento perpendicolare Altezza: 1.190 m	61.6 lx	0.001 lx	85.5 lx	0.000	0.000	CG7

(Scena luce 3)

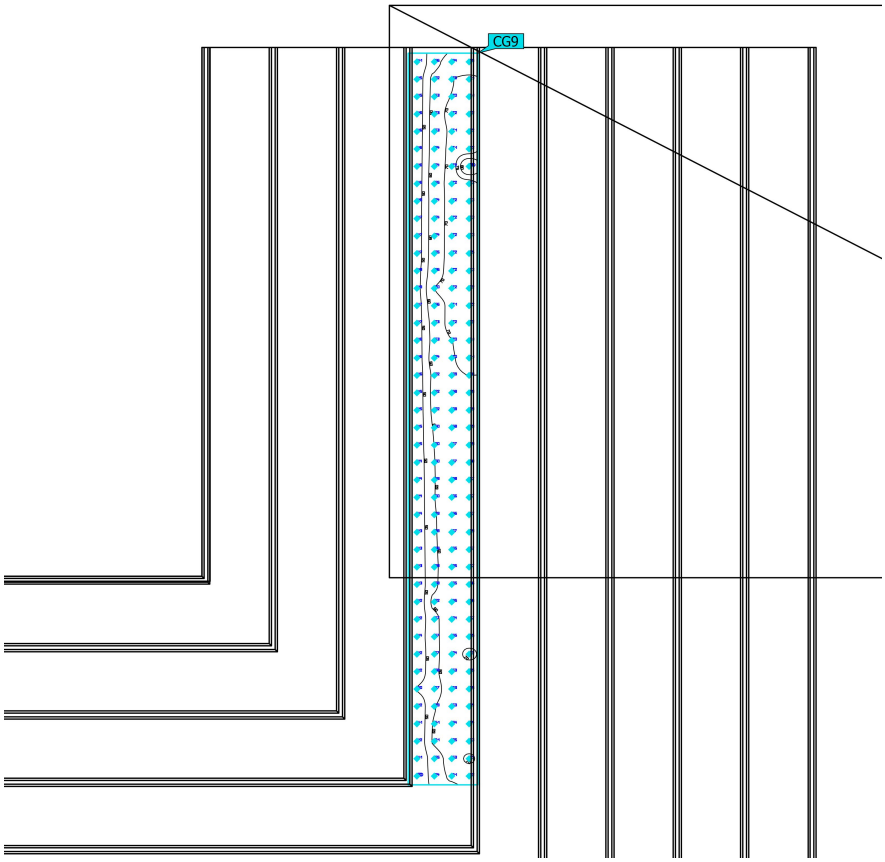
Superficie di calcolo 15



Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie di calcolo 15 Illuminamento perpendicolare Altezza: 1.155 m	64.4 lx	49.8 lx	84.3 lx	0.77	0.59	CG8

(Scena luce 3)

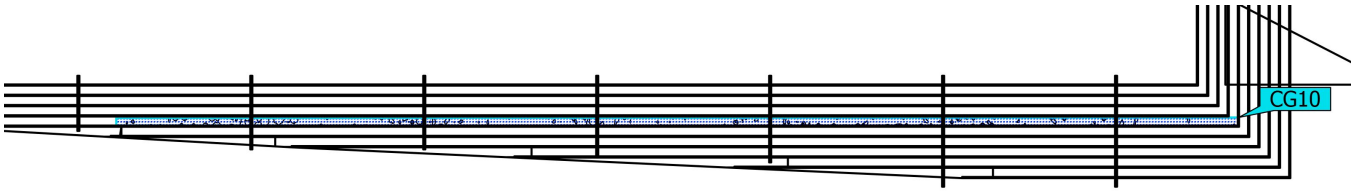
Superficie di calcolo 16



Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie di calcolo 16 Illuminamento perpendicolare Altezza: 0.990 m	60.7 lx	40.4 lx	85.9 lx	0.67	0.47	CG9

(Scena luce 3)

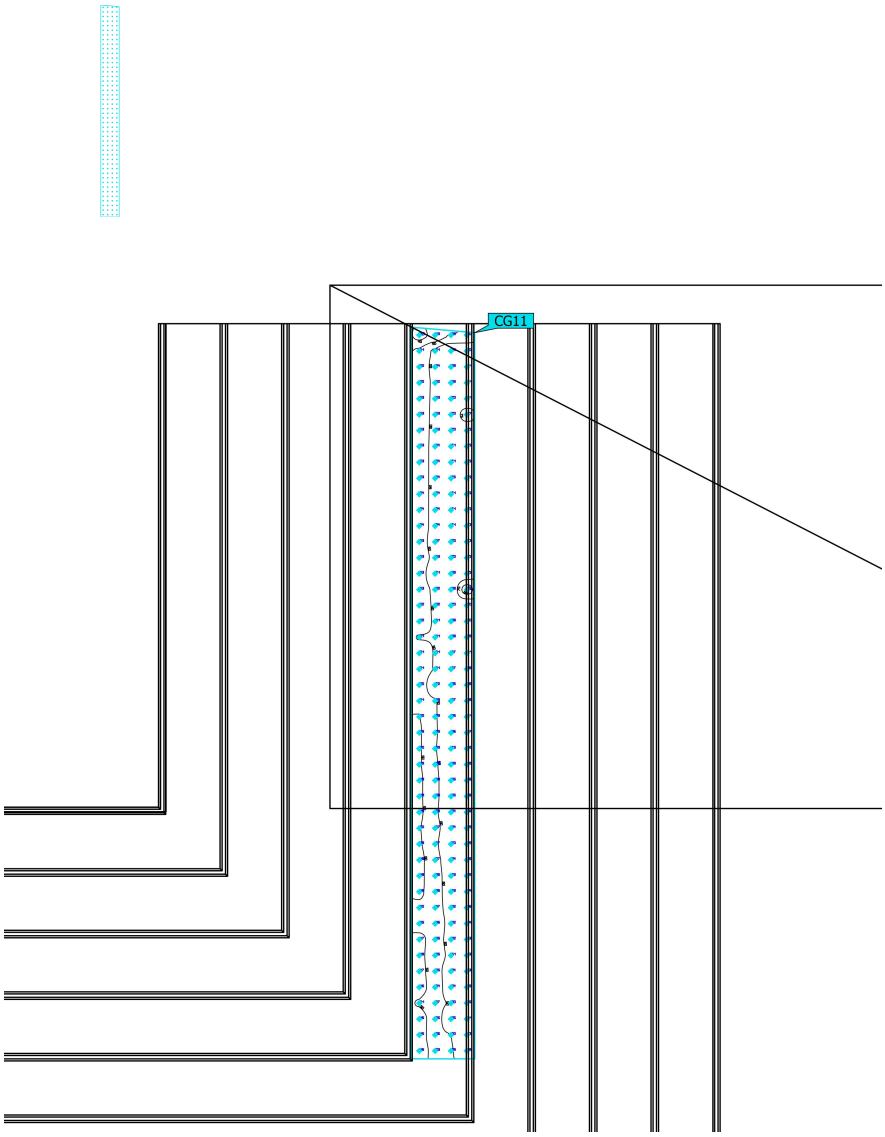
Superficie di calcolo 17



Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie di calcolo 17 Illuminamento perpendicolare Altezza: 0.990 m	63.5 lx	54.0 lx	86.7 lx	0.85	0.62	CG10

(Scena luce 3)

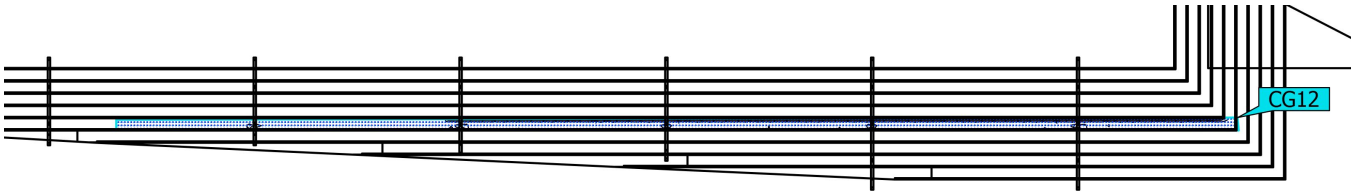
Superficie di calcolo 20



Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie di calcolo 20 Illuminamento perpendicolare Altezza: 0.825 m	61.2 lx	36.6 lx	82.6 lx	0.60	0.44	CG11

(Scena luce 3)

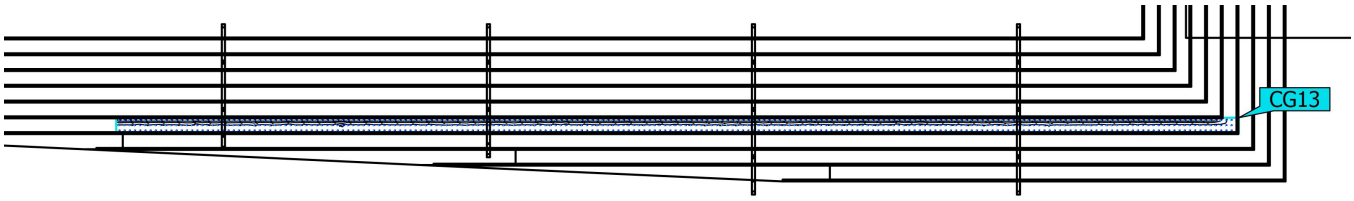
Superficie di calcolo 22



Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie di calcolo 22 Illuminamento perpendicolare Altezza: 0.825 m	50.3 lx	1.59 lx	81.8 lx	0.032	0.019	CG12

(Scena luce 3)

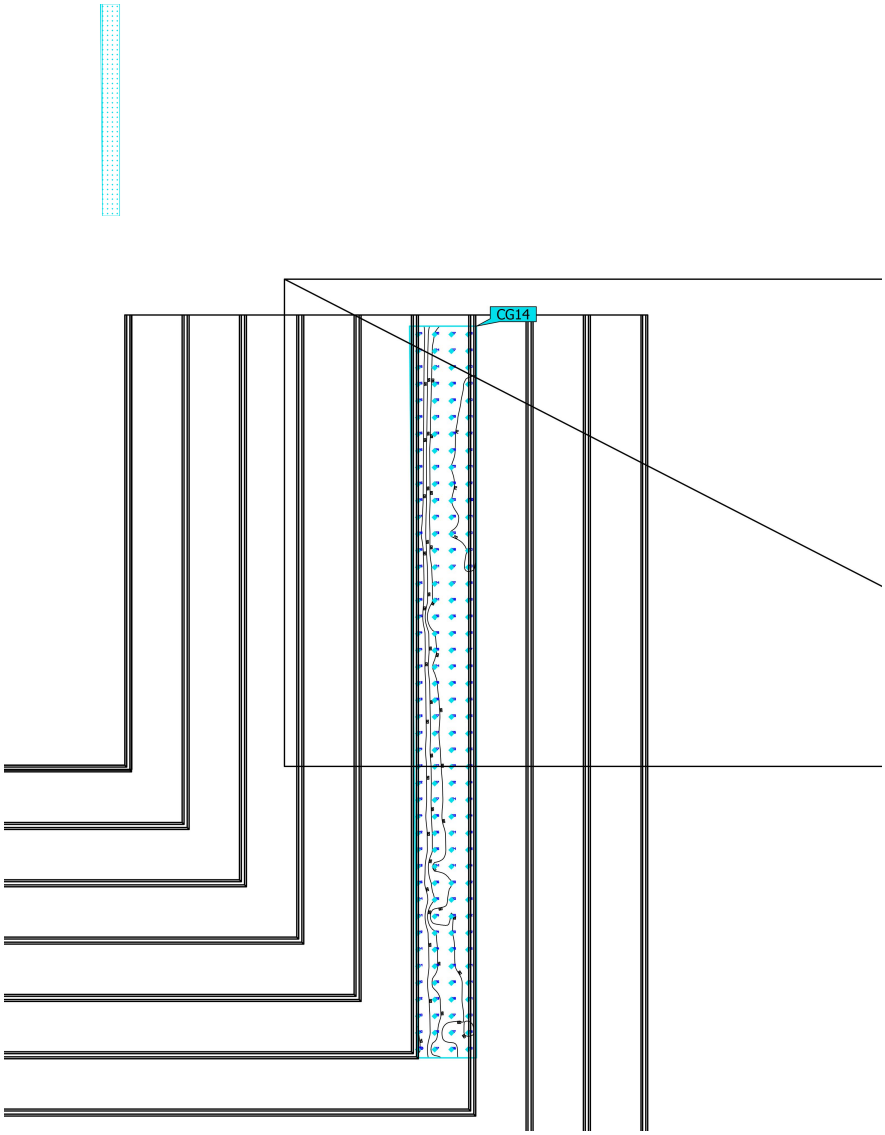
Superficie di calcolo 23



Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie di calcolo 23 Illuminamento perpendicolare Altezza: 0.660 m	40.3 lx	0.001 lx	80.3 lx	0.000	0.000	CG13

(Scena luce 3)

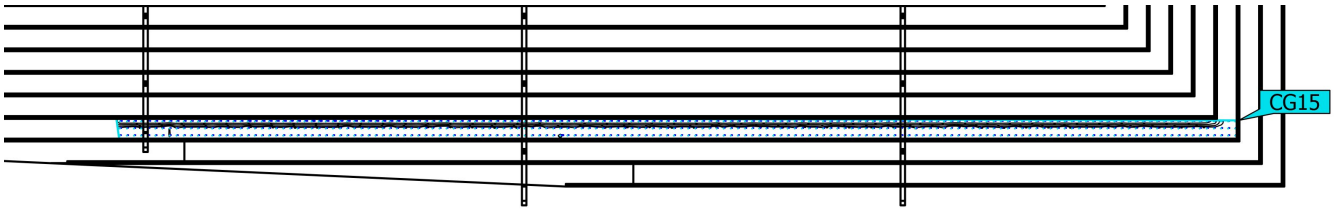
Superficie di calcolo 25



Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie di calcolo 25 Illuminamento perpendicolare Altezza: 0.660 m	58.5 lx	39.0 lx	72.7 lx	0.67	0.54	CG14

(Scena luce 3)

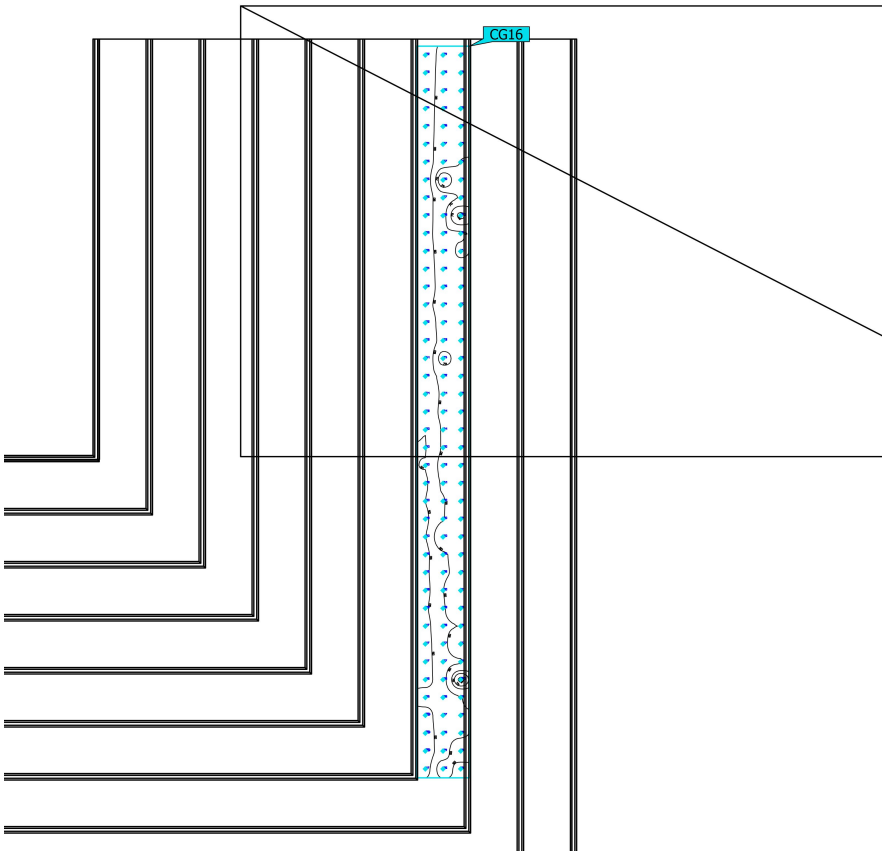
Superficie di calcolo 28



Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie di calcolo 28 Illuminamento perpendicolare Altezza: 0.495 m	40.1 lx	0.93 lx	71.7 lx	0.023	0.013	CG15

(Scena luce 3)

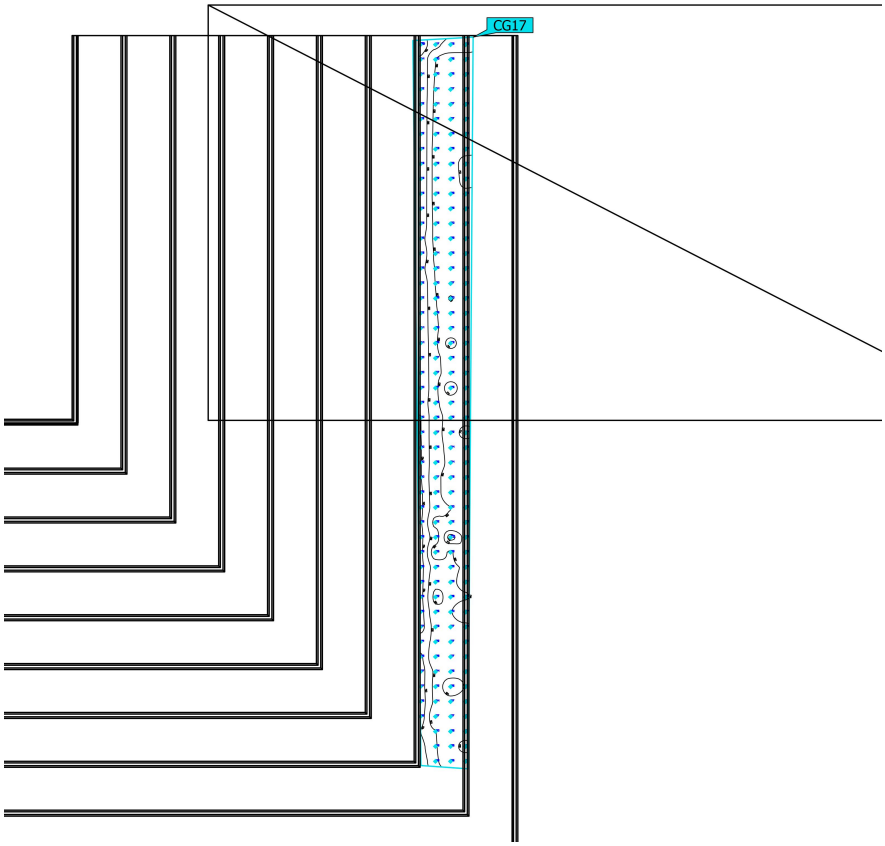
Superficie di calcolo 29



Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie di calcolo 29 Illuminamento perpendicolare Altezza: 0.495 m	60.0 lx	45.4 lx	81.3 lx	0.76	0.56	CG16

(Scena luce 3)

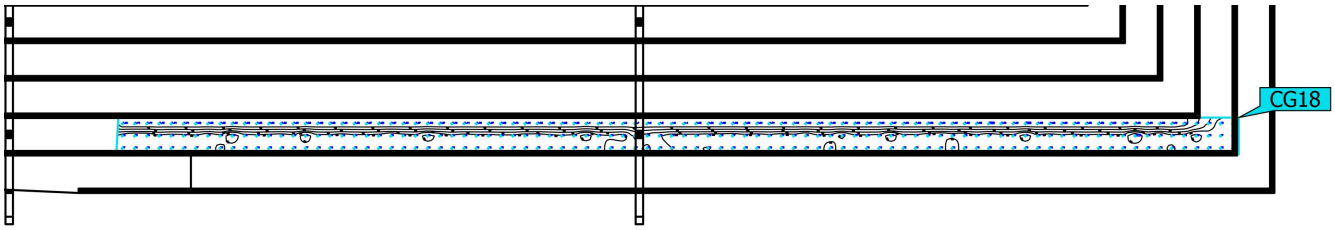
Superficie di calcolo 30



Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie di calcolo 30 Illuminamento perpendicolare Altezza: 0.330 m	56.7 lx	34.1 lx	76.8 lx	0.60	0.44	CG17

(Scena luce 3)

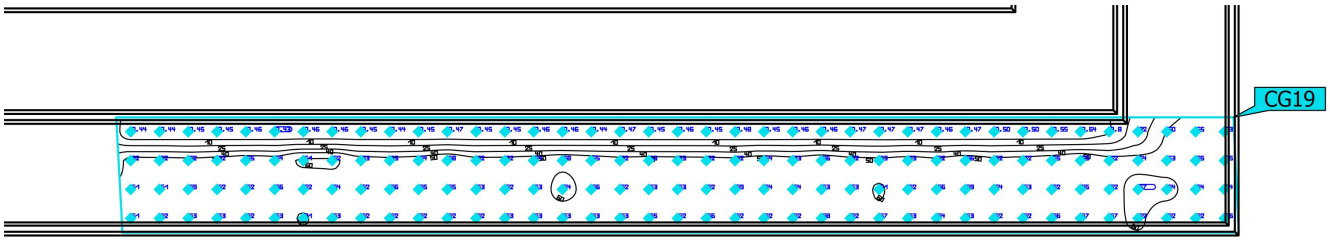
Superficie di calcolo 31



Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie di calcolo 31 Illuminamento perpendicolare Altezza: 0.330 m	37.8 lx	0.62 lx	68.7 lx	0.016	0.009	CG18

(Scena luce 3)

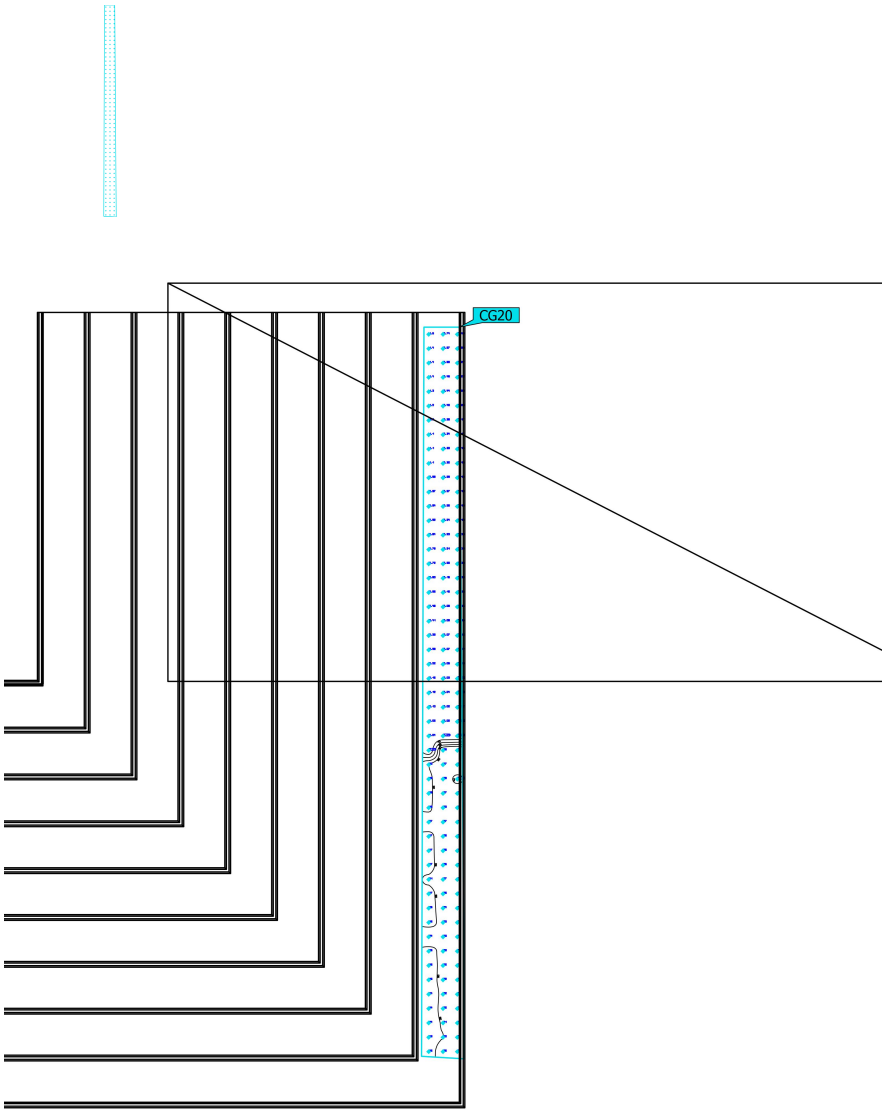
Superficie di calcolo 35



Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie di calcolo 35 Illuminamento perpendicolare Altezza: 0.165 m	42.0 lx	0.43 lx	67.1 lx	0.010	0.006	CG19

(Scena luce 3)

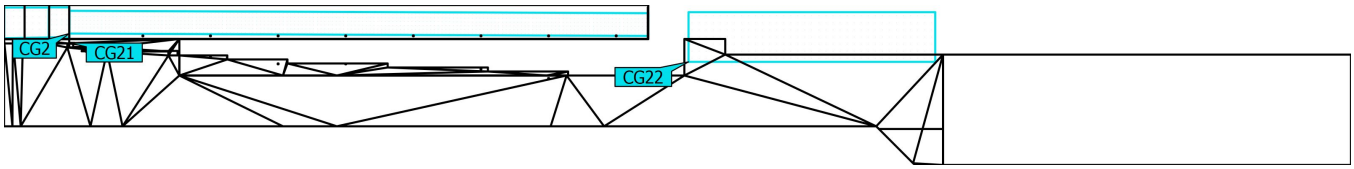
Superficie di calcolo 36



Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie di calcolo 36 Illuminamento perpendicolare Altezza: 0.165 m	23.2 lx	0.008 lx	72.7 lx	0.000	0.000	CG20

(Scena luce 3)

Oggetti di calcolo



(Scena luce 3)

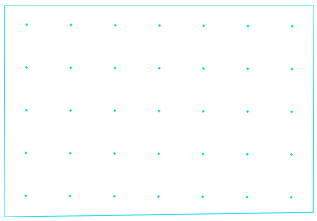
Oggetti di calcolo

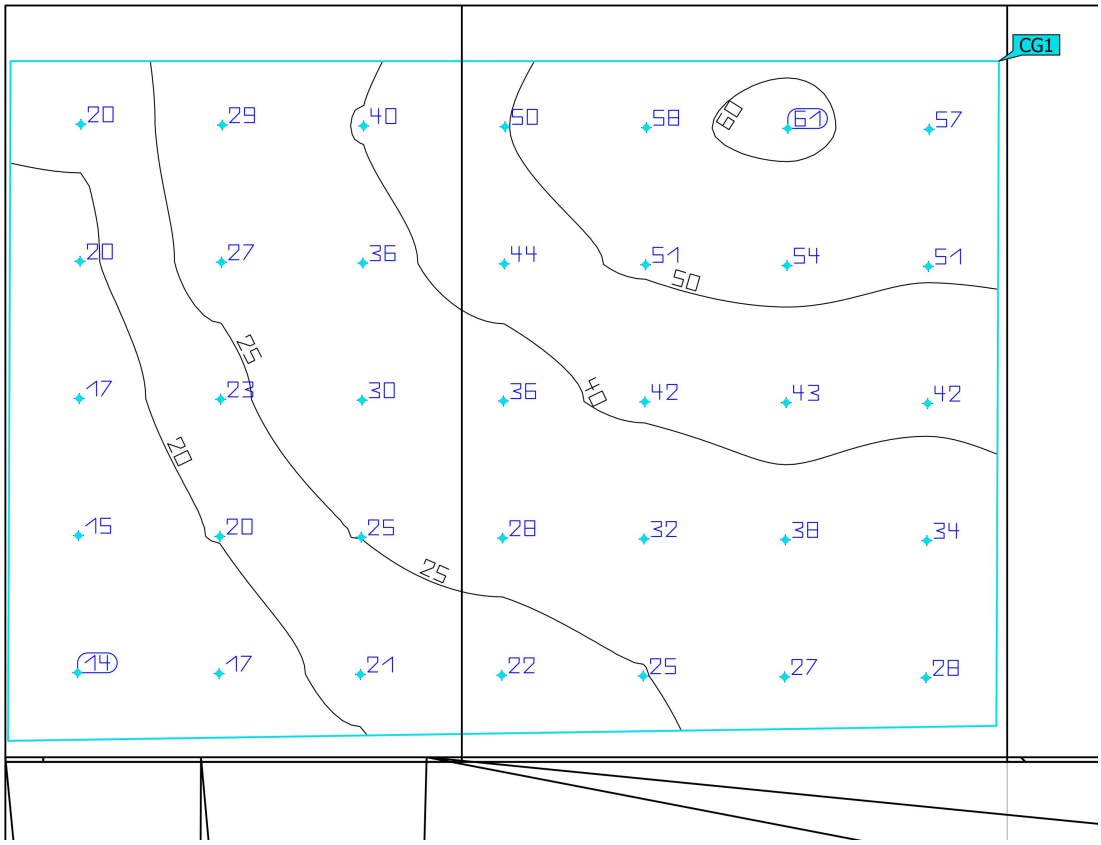
Superfici di calcolo

Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie di calcolo 4 Illuminamento perpendicolare Altezza: 0.662 m	33.6 lx	13.5 lx	61.1 lx	0.40	0.22	CG1
Superficie di calcolo 7 Illuminamento perpendicolare Altezza: 0.812 m	76.5 lx	29.8 lx	138 lx	0.39	0.22	CG2
Superficie di calcolo 5 Illuminamento perpendicolare Altezza: 0.812 m	37.9 lx	28.8 lx	55.6 lx	0.76	0.52	CG21
Superficie di calcolo 44 Illuminamento perpendicolare Altezza: -0.588 m	70.9 lx	35.2 lx	153 lx	0.50	0.23	CG22

(Scena luce 3)

Superficie di calcolo 4

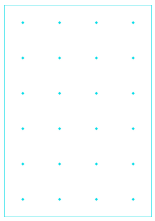


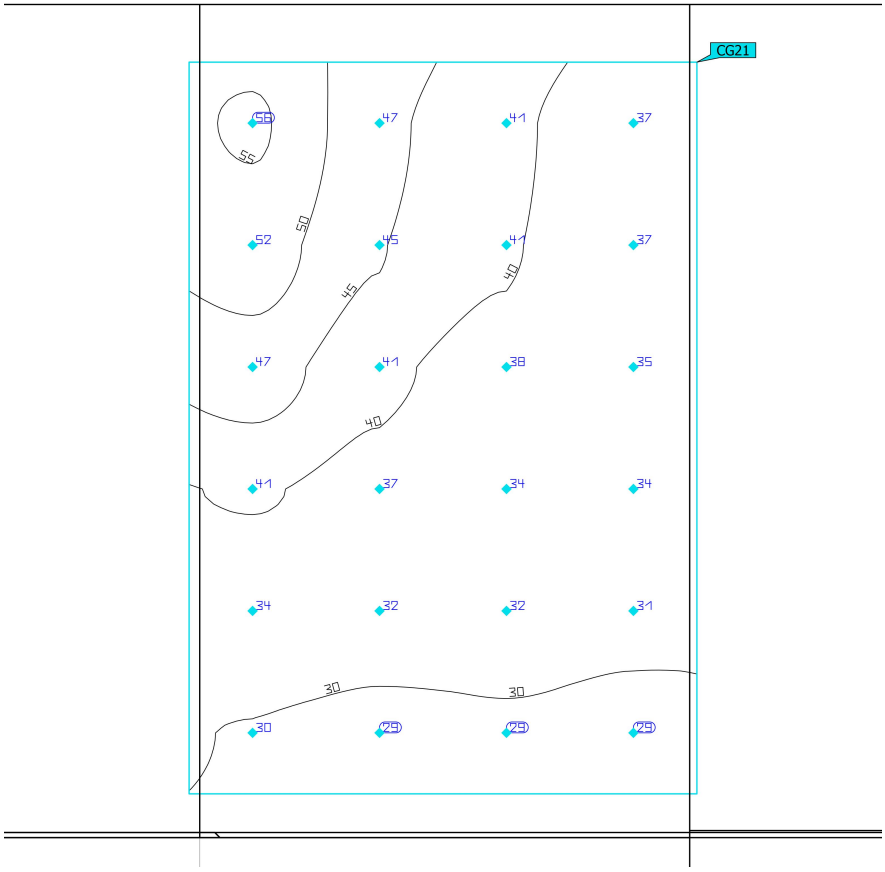


Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie di calcolo 4 Illuminamento perpendicolare Altezza: 0.662 m	33.6 lx	13.5 lx	61.1 lx	0.40	0.22	CG1

(Scena luce 3)

Superficie di calcolo 5

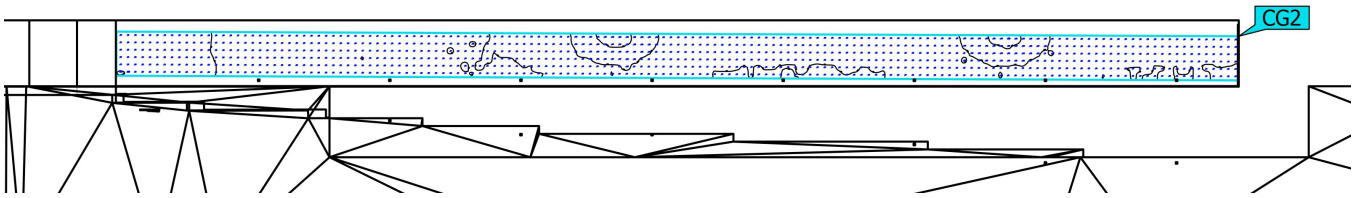




Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie di calcolo 5 Illuminamento perpendicolare Altezza: 0.812 m	37.9 lx	28.8 lx	55.6 lx	0.76	0.52	CG21

(Scena luce 3)

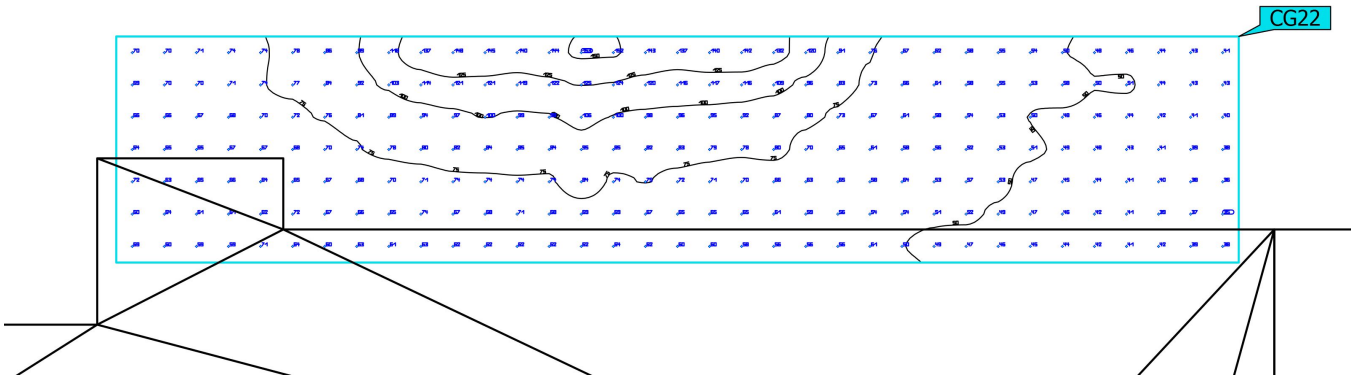
Superficie di calcolo 7



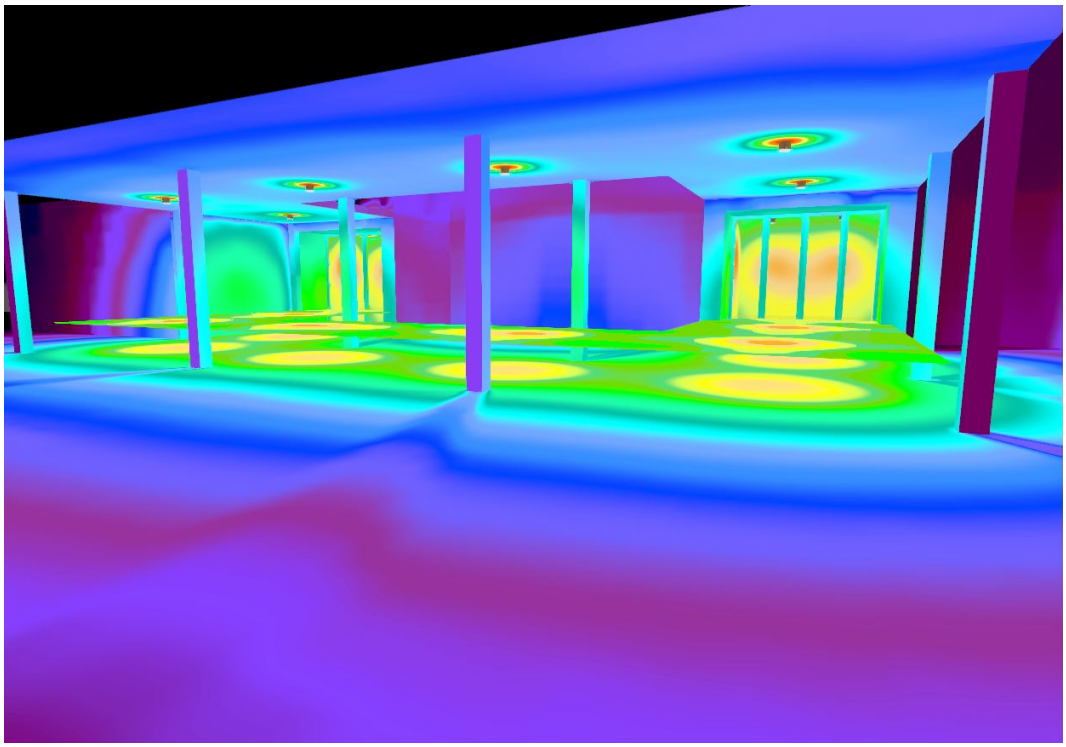
Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie di calcolo 7 Illuminamento perpendicolare Altezza: 0.812 m	76.5 lx	29.8 lx	138 lx	0.39	0.22	CG2

(Scena luce 3)

Superficie di calcolo 44



Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie di calcolo 44 Illuminamento perpendicolare Altezza: -0.588 m	70.9 lx	35.2 lx	153 lx	0.50	0.23	CG22



Pensilina

Created with DIALux

DIALux

Lista lampade

Φ_{totale}	P_{totale}	Efficienza
19250 lm	180.0 W	106.9 lm/W

Pz.	Produttore	Articolo No.	Nome articolo	P	Φ	Efficienza
10	BEGA	66057K3	LED 18W	18.0 W	1925 lm	106.9 lm/W

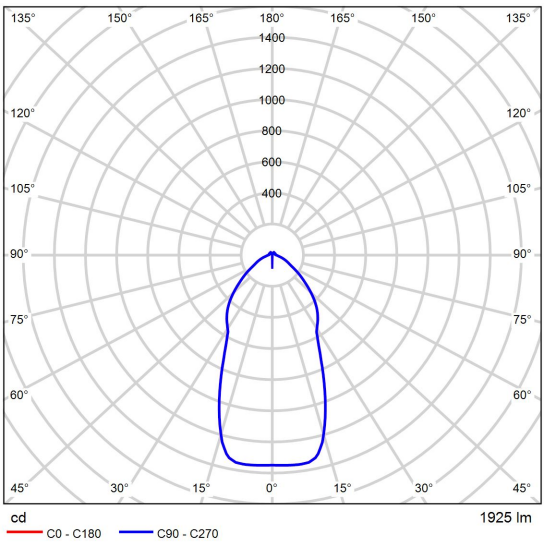
DIALux

Scheda tecnica prodotto

BEGA - LED 18W

BEGA

Articolo No.	66057K3
P	18.0 W
$\Phi_{Lampadina}$	–
$\Phi_{Lampada}$	1925 lm
η	–
Efficienza	106.9 lm/W
CCT	3000 K
CRI	80

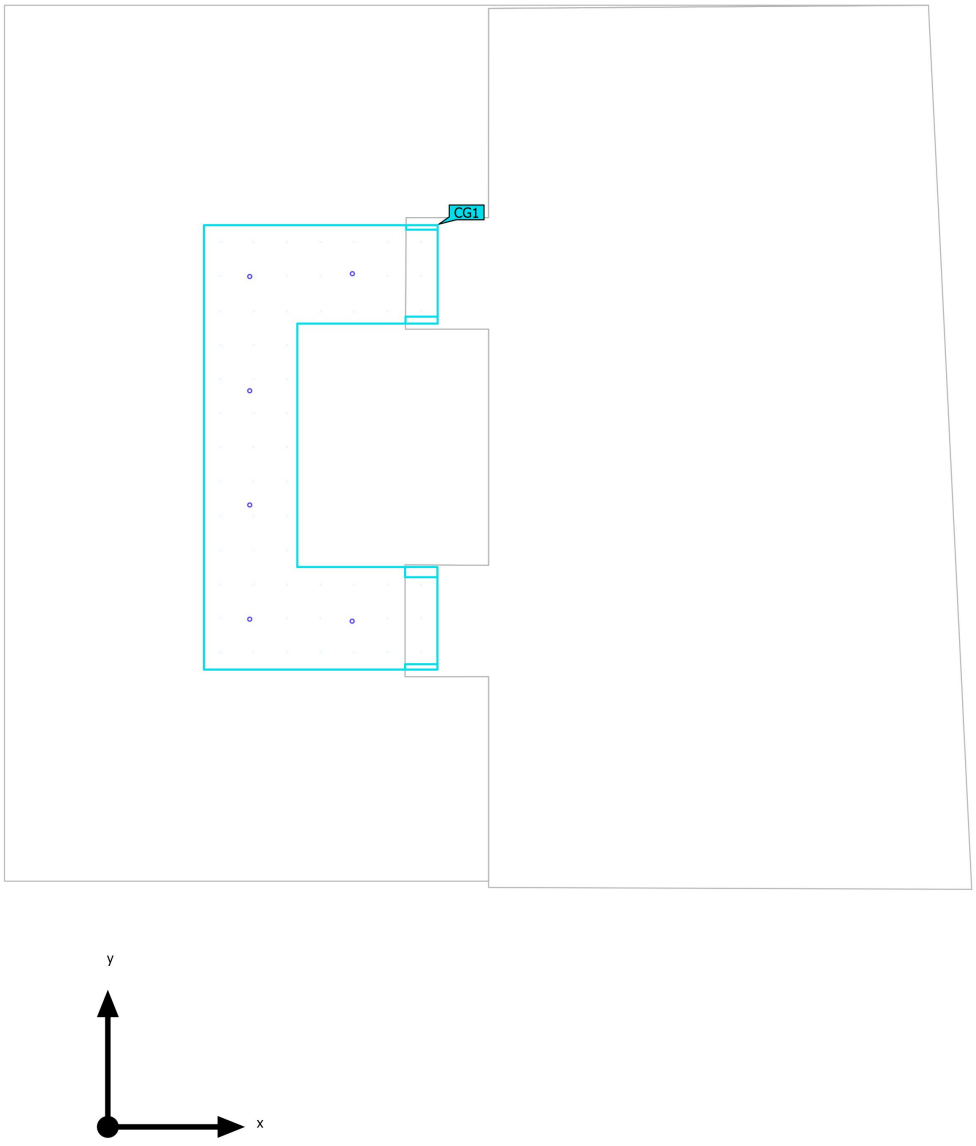


CDL polare

BEGA Deckenaufbau-Tiefstrahler 66057K3 mit zusätzlichem vertikalen Lichtanteil.
LED, 18 W Leuchten-Anschlussleistung, Leuchten-Lichtstrom 1925 lm,
Halbstreuwinkel 53°, Farbtemperatur 3000 K. Farbwiedergabeindex (Ra) > 80.
Mit austauschbarem BEGA LED-Modul mit Übertemperaturschutz und einer
Lebenserwartung von mindestens 50.000 Betriebsstunden.
20-jährige Nachliefergarantie auf das LED-Modul und die Verschleißteile.
Mit LED-Netzteil, DALI steuerbar, 220-240 V, 0/50-60 Hz. Schutzart IP 65.
Leuchte aus Aluminiumguss, Aluminium und Edelstahl, Farbe Grafit.
Kristallglas teilmattiert. Reflektor aus eloxiertem Reinstaluminium.
Zwei Leitungseinführungen zur Durchverdrahtung der Netzanschlussleitung
bis Ø 10,5 mm, max. 5 x 1,5 qmm. Leuchtendurchmesser 190 mm, Höhe 160 mm.

Area 1 (Scena luce 1)

Oggetti di calcolo



Area 1 (Scena luce 1)

Oggetti di calcolo

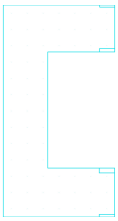
Superfici di calcolo

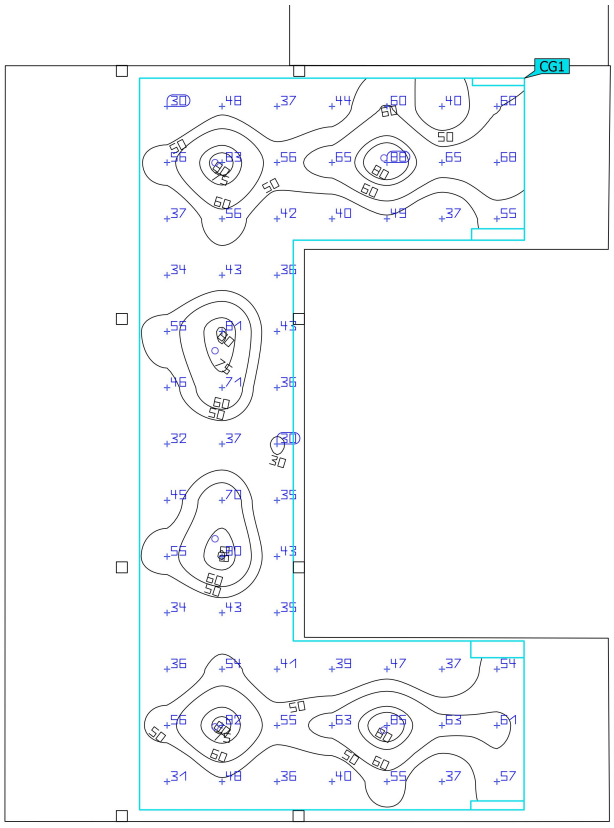
Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Pensilina Illuminamento perpendicolare Altezza: 0.000 m	50.4 lx	29.7 lx	87.9 lx	0.59	0.34	CG1

DIALux

Area 1 (Scena luce 1)

Pensilina



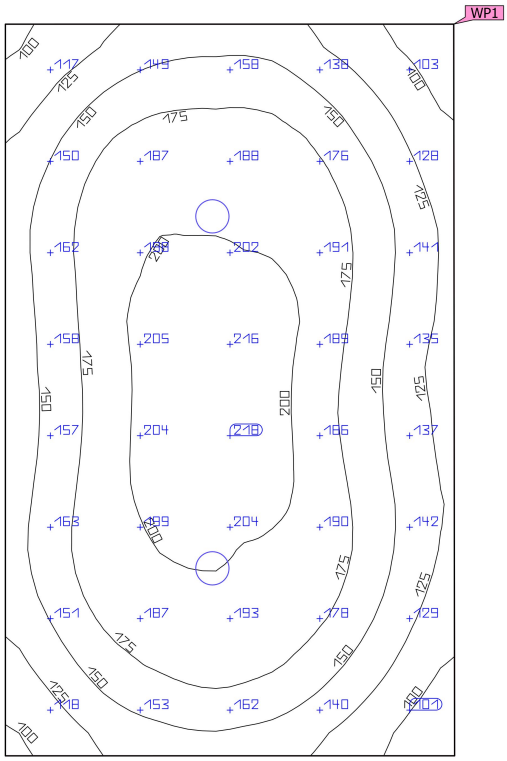


Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Pensilina Illuminamento perpendicolare Altezza: 0.000 m	50.4 lx	29.7 lx	87.9 lx	0.59	0.34	CG1

DIALux

Edificio · Piano 1 · bussola (Scena luce 1)

Superficie utile (bussola)



Proprietà	Ē	$E_{min.}$	E_{max}	U_o (g_1)	g_2	Indice
Superficie utile (bussola) Illuminamento perpendicolare (adattivo) Altezza: 0.800 m, Zona margine: 0.000 m	164 lx	82.9 lx	219 lx	0.51	0.38	WP1

Glossario

A

A	Simbolo usato nelle formule per una superficie in geometria
Altezza libera	Denominazione per la distanza tra il bordo superiore del pavimento e il bordo inferiore del soffitto (quando un locale è stato smantellato).
Area circostante	L'area circostante è direttamente adiacente all'area del compito visivo e dovrebbe essere larga almeno 0,5 m secondo la UNI EN 12464-1. Si trova alla stessa altezza dell'area del compito visivo.
Area del compito visivo	L'area necessaria per l'esecuzione del compito visivo conformemente alla UNI EN 12464-1. L'altezza corrisponde a quella alla quale viene eseguito il compito visivo.
Autonomia della luce diurna	Descrive in che percentuale dell'orario di lavoro giornaliero l'illuminamento richiesto è soddisfatto dalla luce diurna. L'illuminamento nominale viene utilizzato dal profilo della stanza, a differenza di quanto descritto nella EN 17037. Il calcolo non viene eseguito al centro della stanza ma nel punto di misurazione del sensore posizionato. Una stanza è considerata sufficientemente rifornita di luce diurna se raggiunge almeno il 50% di autonomia della luce diurna.

C

CCT	(ingl. correlated colour temperature) Temperatura del corpo di una lampada ad incandescenza che serve a descrivere il suo colore della luce. Unità: Kelvin [K]. Più è basso il valore numerico e più rossastro sarà il colore della luce, più è alto il valore numerico e più bluastro sarà il colore della luce. La temperatura di colore delle lampade a scarica di gas e dei semiconduttori è detta "temperatura di colore più simile" a differenza della temperatura di colore delle lampade ad incandescenza. Assegnazione dei colori della luce alle zone di temperatura di colore secondo la UNI EN 12464-1: colore della luce - temperatura di colore [K] bianco caldo (bc) < 3.300 K bianco neutro (bn) ≥ 3.300 – 5.300 K bianco luce diurna (bld) > 5.300 K
Coefficiente di riflessione	Il coefficiente di riflessione di una superficie descrive la quantità della luce presente che viene riflessa. Il coefficiente di riflessione viene definito dai colori della superficie.

Glossario

CRI	(ingl. colour rendering index) Indice di resa cromatica di una lampada o di una lampadina secondo la norma DIN 6169: 1976 oppure CIE 13.3: 1995. L'indice generale di resa cromatica Ra (o CRI) è un indice adimensionale che descrive la qualità di una sorgente di luce bianca in merito alla sua somiglianza, negli spettri di remissione di 8 colori di prova definiti (vedere DIN 6169 o CIE 1974), con una sorgente di luce di riferimento.

E

Efficienza	Rapporto tra potenza luminosa irradiata Φ [lm] e potenza elettrica assorbita P [W], unità: lm/W. Questo rapporto può essere composto per la lampadina o il modulo LED (rendimento luminoso lampadina o modulo), la lampadina o il modulo con dispositivo di controllo (rendimento luminoso sistema) e la lampada completa (rendimento luminoso lampada).
Eta (η)	(ingl. light output ratio) Il rendimento lampada descrive quale percentuale del flusso luminoso di una lampadina a irraggiamento libero (o modulo LED) lascia la lampada quando è montata. Unità: %

F

Fattore di diminuzione	Vedere MF
Fattore di luce diurna	Rapporto dell'illuminamento in un punto all'interno, ottenuto esclusivamente con l'incidenza della luce diurna, rispetto all'illuminamento orizzontale all'esterno sotto un cielo non ostruito. Simbolo usato nelle formule: D (ingl. daylight factor) Unità: %
Flusso luminoso	Misura della potenza luminosa totale emessa da una sorgente luminosa in tutte le direzioni. Si tratta quindi di una "grandezza trasmettitore" che indica la potenza di trasmissione complessiva. Il flusso luminoso di una sergente luminosa si può calcolare solo in laboratorio. Si fa distinzione tra il flusso luminoso di una lampadina o di un modulo LED e il flusso luminoso di una lampada. Unità: lumen Abbreviazione: lm Simbolo usato nelle formule: Φ

Glossario

G

g_1	Spesso anche U_o (ingl. overall uniformity) Descrive l'uniformità complessiva dell'illuminamento su una superficie. È il quoziente di $E_{min}/\bar{E}$ e viene richiesto anche dalle norme sull'illuminazione dei posti di lavoro.
g_2	Descrive più esattamente la "disuniformità" dell'illuminamento su una superficie. È il quoziente di E_{min}/E_{max} ed è rilevante di solito solo per la verifica della rispondenza alla UNI EN 1838 per l'illuminazione di emergenza.
Gruppo di controllo	Un gruppo di apparecchi regolabili e controllati insieme. Per ogni scena luminosa, un gruppo di controllo fornisce il proprio valore di attenuazione. Tutti gli apparecchi all'interno di un gruppo di controllo condividono questo valore di regolazione. I gruppi di comando con i relativi apparecchi di illuminazione vengono determinati automaticamente da DIALux sulla base degli scenari luminosi creati e dei relativi gruppi di apparecchi.

I

Illuminamento	Descrive il rapporto del flusso luminoso, che colpisce una determinata superficie, rispetto alle dimensioni di tale superficie ($lm/m^2 = lx$). L'illuminamento non è legato alla superficie di un oggetto ma può essere definito in qualsiasi punto di un locale (sia all'interno che all'esterno). L'illuminamento non è una caratteristica del prodotto, infatti si tratta di una grandezza ricevitore. Per la misurazione si utilizzano luxmetri. Unità: lux Abbreviazione: lx Simbolo usato nelle formule: E
Illuminamento, adattivo	Per determinare su una superficie l'illuminamento medio adattivo, la rispettiva griglia va suddivisa in modo da essere "adattiva". Nell'ambito di grandi differenze di illuminamento all'interno della superficie, la griglia è suddivisa più finemente mentre in caso di differenze minime la suddivisione è più grossolana.
Illuminamento, orizzontale	Illuminamento calcolato o misurato su un piano orizzontale (potrebbe trattarsi per es. della superficie di un tavolo o del pavimento). L'illuminamento orizzontale è contrassegnato di solito nelle formule da E_h.
Illuminamento, perpendicolare	Illuminamento calcolato o misurato perpendicolarmente ad una superficie. È da tener presente per le superfici inclinate. Se la superficie è orizzontale o verticale, non c'è differenza tra l'illuminamento perpendicolare e quello orizzontale o verticale.
Illuminamento, verticale	Illuminamento calcolato o misurato su un piano verticale (potrebbe trattarsi per es. della parte anteriore di uno scaffale). L'illuminamento verticale è contrassegnato di solito nelle formule da E_v.

Glossario

Intensità luminosa	Descrive l'intensità della luce in una determinata direzione (grandezza trasmettitore). L'intensità luminosa è il flusso luminoso Φ che viene emesso in un determinato angolo solido Ω. La caratteristica dell'irraggiamento di una sorgente luminosa viene rappresentata graficamente in una curva di distribuzione dell'intensità luminosa (CDL). L'intensità luminosa è un'unità base SI. Unità: candela Abbreviazione: cd Simbolo usato nelle formule: I

K

k_S	L'effetto abbagliante di una sorgente luminosa può essere determinato mediante il fattore di abbagliamento k_S descrivi. Riguarda l'angolo solido della sorgente di abbagliamento vista dal punto di immissione, la luminanza ambientale e la luminanza massima consentita.

L

LENI	(ingl. lighting energy numeric indicator) Parametro numerico di energia luminosa secondo UNI EN 15193 Unità: kWh/m² anno
LLMF	(ingl. lamp lumen maintenance factor)/secondo CIE 97: 2005 Fattore di manutenzione del flusso luminoso lampadine che tiene conto della diminuzione del flusso luminoso di una lampadina o di un modulo LED durante il periodo di esercizio. Il fattore di manutenzione del flusso luminoso lampadine è indicato come numero decimale e può assumere un valore di massimo 1 (in assenza di riduzione del flusso luminoso).
LMF	(ingl. luminaire maintenance factor)/secondo CIE 97: 2005 Fattore di manutenzione lampade che tiene conto della sporcizia di una lampada durante il periodo di esercizio. Il fattore di manutenzione lampade è indicato come numero decimale e può assumere un valore di massimo 1 (in assenza di sporcizia).
LSF	(ingl. lamp survival factor)/secondo CIE 97: 2005 Fattore di sopravvivenza lampadina che tiene conto dell'avaria totale di una lampada durante il periodo di esercizio. Il fattore di sopravvivenza lampadina è indicato come numero decimale e può assumere un valore di massimo 1 (nessun guasto entro il lasso di tempo considerato o sostituzione immediata dopo il guasto).
Luce di veloa/Immissione luminosa	Per tutelare l'ambiente notturno e ridurre al minimo i problemi per le persone, la flora e la fauna, è necessario limitare gli effetti disturbanti (noti anche come inquinamento luminoso), che possono causare gravi problemi fisiologici ed ecologici alle persone e all'ambiente. L'immissione di luce può essere descritta come l'effetto di disturbo provocato dalla luce emessa da sorgenti luminose artificiali.

Glossario

Luminanza	Misura per l'"impressione di luminosità" che l'occhio umano ha di una superficie. La superficie stessa può illuminare o riflettere la luce incidente (grandezza trasmettitore). Si tratta dell'unica grandezza fotometrica che l'occhio umano può percepire. Unità: candela / metro quadrato Abbreviazione: cd/m^2 Simbolo usato nelle formule: L

M

MF	(ingl. maintenance factor)/secondo CIE 97: 2005 Fattore di manutenzione come numero decimale compreso tra 0 e 1, che descrive il rapporto tra il nuovo valore di una grandezza fotometrica pianificata (per es. dell'illuminamento) e il fattore di manutenzione dopo un determinato periodo di tempo. Il fattore di manutenzione prende in considerazione la sporcizia di lampade e locali, la riduzione del riflesso luminoso e la défaillance di sorgenti luminose. Il fattore di manutenzione viene considerato in blocco oppure calcolato in modo dettagliato secondo CIE 97: 2005 utilizzando la formula RMF x LMF x LLMF x LSF.

P

P	(ingl. power) Assorbimento elettrico Unità: watt Abbreviazione: W
Periodo di validità	La valutazione della luce molesta e delle emissioni luminose dipende dal tempo di utilizzo del sistema di illuminazione. A seconda della norma vengono specificati 1-3 orari di utilizzo diversi. Senza informazioni si può presumere un utilizzo tra le 6:00 e le 22:00.

R

$R_{(UG)}$ max	(engl. rating unified glare) Misura dell'abbagliamento psicologico negli spazi interni. Oltre alla luminanza degli apparecchi, il livello del valore $R_{(UG)}$ dipende anche dalla posizione dell'osservatore, dalla direzione di osservazione e dalla luminanza ambientale. Il calcolo viene effettuato secondo il metodo delle tabelle, vedere CIE 117. Tra l'altro, la EN 12464-1:2021 specifica la $R_{(UG)\ massima\ ammissibile}$ - valori $R_{(UGL)}$ per vari luoghi di lavoro interni.
R_{DLO}	Rapporto tra il flusso luminoso emesso al di sotto dell'orizzonte e il flusso luminoso totale di una lampada o di un sistema di illuminazione nella posizione di utilizzo.

Glossario

R_G	L'abbagliamento causato direttamente dall'illuminazione proveniente da un sistema di luce esterna è secondo la CIE il valore di abbagliamento (RG)-Metodo per determinare. Per il calcolo è richiesta la luminanza di velo equivalente dell'area circostante. Sono possibili quattro opzioni per la determinazione: • un calcolo esatto secondo CIE 112. La base è l'area delle scene. • un metodo semplificato secondo EN 12464-2. La base è l'area delle scene. • con una propria area di calcolo per determinare la luminanza di velo equivalente. • l'indicazione di un valore fisso per un facile confronto n
R_{UF}	rapporto di flusso verso l'alto Rapporto tra il flusso luminoso emesso direttamente o riflesso sopra l'orizzonte e il flusso luminoso che non può essere evitato in circostanze ideali per raggiungere il livello di illuminamento su una superficie deliberatamente illuminata .
R_{UL}	rapporto di illuminazione verso l'alto Rapporto tra il flusso luminoso emesso sopra l'orizzonte e il flusso luminoso di un apparecchio o sistema di illuminazione nella posizione di utilizzo. Si tiene conto dell'efficienza dell'apparecchio.
R_{ULO}	rapporto di illuminazione verso l'alto Rapporto tra il flusso luminoso emesso sopra l'orizzonte e il flusso luminoso totale di una lampada o di un sistema di illuminazione nella posizione d'uso.
RMF	(ingl. room maintenance factor)/secondo CIE 97: 2005 Fattore di manutenzione locale che tiene conto della sporcizia delle superfici che racchiudono il locale durante il periodo di esercizio. Il fattore di manutenzione locale è indicato come numero decimale e può assumere un valore di massimo 1 (in assenza di sporcizia).
RUG (massimo)	(EN Unified Glare Rating) Misura dell'effetto psicologico dell'abbagliamento in ambienti interni. L'entità del valore RUG dipende oltre che dalla luminanza dell'apparecchio anche dalla posizione dell'osservatore, dalla direzione dello sguardo e dalla luminanza ambientale. La norma EN 12464-1 specifica tra le altre cose i valori RUG massimi consentiti per vari luoghi di lavoro interni.
RUG-Osservatore	Punto di calcolo del locale per il quale DIALux determina il valore RUG. La posizione e l'altezza del punto di calcolo dovrebbero corrispondere alla posizione tipica dell'osservatore (posizione e altezza dello sguardo dell'utente).

S

Superficie utile	Superficie virtuale di misurazione o di calcolo all'altezza del compito visivo, che di solito segue la geometria del locale. La superficie utile può essere provvista anche di una zona marginale.

Glossario

Superficie utile per fattori di luce diurna	Una superficie di calcolo entro la quale viene calcolato il fattore di luce diurna.

V

Valutazione energetica	Basato su una procedura di calcolo orario per la luce diurna negli spazi interni, considerando la geometria del progetto e gli eventuali sistemi di controllo della luce diurna esistenti. Vengono presi in considerazione anche l'orientamento e l'ubicazione del progetto. Il calcolo utilizza la potenza di sistema specificata degli apparecchi di illuminazione per determinare il fabbisogno energetico. Per gli apparecchi a luce diurna si presume una relazione lineare tra potenza e flusso luminoso nello stato regolato. Tempi di utilizzo e illuminamento nominale sono determinati dai profili di utilizzo degli spazi. Gli apparecchi accesi esplicitamente esclusi dal controllo tengono conto anche dei tempi di utilizzo indicati. I sistemi di controllo della luce diurna utilizzano una logica di controllo semplificata che li chiude a un illuminamento orizzontale di 27.500 lx. L'anno solare 2022 viene utilizzato solo come riferimento. Non è una simulazione di quest'anno. L'anno di riferimento viene utilizzato solo per assegnare i giorni della settimana ai risultati calcolati. Non si tiene conto del passaggio all'ora legale. Il tipo di cielo di riferimento utilizzato è il cielo medio descritto in CIE 110 senza luce solare diretta. Il metodo è stato sviluppato insieme al Fraunhofer Institute for Building Physics ed è disponibile per la revisione da parte del Joint Working Group 1 ISO TC 274 come estensione del precedente metodo annuale basato sulla regressione.

Z

Zona di sfondo	Secondo la norma UNI EN 12464-1 la zona di sfondo è adiacente all'area immediatamente circostante e si estende fino ai confini del locale. Per locali di dimensioni maggiori la zona di sfondo deve avere un'ampiezza di almeno 3 m. Si trova orizzontalmente all'altezza del pavimento.
Zona margine	Area perimetrale tra superficie utile e pareti che non viene considerata nel calcolo.
Zone a basse emissioni/Aree	La valutazione della luce molesta e delle emissioni luminose dipende dall'ambiente circostante il sistema di illuminazione. A seconda della norma vengono definite 4-6 diverse aree, dalle aree particolarmente meritevoli di protezione all'aria aperta alle aree del centro urbano, alle aree commerciali e alle zone industriali.

ALLEGATO 3

VALUTAZIONE DEL RISCHIO DI FULMINAZIONE DA SCARICHE ATMOSFERICHE

Protezione contro i fulmini
Valutazione del rischio

elaborata secondo norma internazionale:
IEC 62305-2:2010-12

considerando le note nazionali del paese:
CEI EN 62305-2 (CEI 81-10/2):2013

Riassunto delle misure di protezione
per la riduzione dei danni causati da fulminazioni.

Risultati della valutazione del rischio per il seguente progetto:

Indice

1. Indice abbreviazioni

2. Base normativa

3. Rischio e sorgente di danno

4. Dati sul progetto
4.1. Rischi da considerare
4.2. Parametri geografici e della struttura
4.3. Suddivisione della struttura in zone di protezione/zone
4.4. Servizi entranti
4.5. Carico d'incendio
4.6. Misure di protezione antincendio
4.7. Pericoli particolari delle persone nella struttura

5. Valutazione del rischio
5.1. Rischio R1, Vita umana
5.2. Scelta misure di protezione

6. Informazioni generali

7. Spiegazione dei termini

1. Indice abbreviazioni

a	Tasso di ammortamento
a_t	Tempo di ammortamento
c_a	Costo degli animali nella zona, in denaro
c_b	Costo della zona dell'edificio, in denaro
c_c	Costo del contenuto della zona, in denaro
c_s	Valore degli impianti interni (compreso le loro attività) in denaro
c_t	Valore totale della struttura, in denaro
C_D;C_{DJ}	Coefficiente di posizione
C_L	Costo annuo della perdita totale senza misure di protezione
C_{PM}	Costo annuo delle misure di protezione scelte
C_{RL}	Costo annuo della perdita residua
EB	lightning equipotential bonding – Equipotenzializzazione antifulmine
H	Altezza della struttura
H_P	Punto massimo della struttura
i	Tasso di interesse
K_{S1}	Coefficiente relativo all'efficacia dell'effetto schermante della struttura (schermatura esterna)
K_{S1W}	Lato di magliatura dello schermo della struttura
K_{S2} interna)	Coefficiente relativo all'efficacia di uno schermo interno alla struttura (schermatura
K_{S2W}	Lato di magliatura dello schermo interno
L1	Perdita di vite umane
L2	Perdita di servizio pubblico
L3	Perdita di patrimonio culturale insostituibile
L4	Perdita economica
L	Lunghezza della struttura
LEMP	Lightning electromagnetic impulse – impulso elettromagnetico del fulmine
LP	lightning protection – protezione contro il fulmine (composto dal sistema di protezione contro il fulmine (LPS) e dalle misure di protezione contro il LEMP)
LPL	lightning protection level – livello di protezione
LPS	lightning proctection system – sistema di protezione contro il fulmine
LPZ	Lightning protection zone – zone di protezione (zona in cui è definito l'ambiente elettromagnetico creato dal fulmine.)
m	Tasso di manutenzione
N_D	Numero di eventi pericolosi per fulminazione diretta della struttura
N_G	Densità di fulmini al suolo
P_B	Probabilità di danno materiale in una struttura (fulminazione sulla struttura)
P_{EB}	Equipotenzializzazione antifulmine
P_{SPD}	Sistema coordinato di SPD
R	Rischio
R_1	Rischio di perdita di vite umane nella struttura
R_2	Rischio di perdita di servizio pubblico in una struttura
R_3	Rischio di perdita di patrimonio culturale insostituibile in una struttura
R_4	Rischio di perdita economica in una struttura
R_A	Componente di rischio (danno ad esseri viventi – fulminazione sulla struttura)
R_B	Componente di rischio (danno materiale alla struttura - fulminazione sulla struttura)
R_C	Componente di rischio (guasto di impianti interni - fulminazione sulla struttura)

R_M	Componente di rischio (guasto di impianti interni - fulminazione in prossimità della struttura)
R_U	Componente di rischio (danno ad esseri viventi – fulminazione sulla linea connessa)
R_V	Componente di rischio (danno materiale alla struttura – fulminazione sulla linea connessa)
R_W	Componente di rischio (guasto di impianti interni – fulminazione sulla linea connessa)
R_Z	Componente di rischio (guasto di impianti interni – fulminazione in prossimità della linea connessa)
R_T	Rischio tollerabile (valore massimo di un rischio ancora accettabile per la struttura da proteggere)
r_f	Coefficiente di riduzione delle perdite dipendente dal rischio di incendio
r_p	Coefficiente di riduzione delle perdite correlato alle misure antincendio
S_M	Risparmio annuo
SPD	surgeprotectivedevice – Limitatore di sovratensione
SPM	misure di protezione contro il LEMP (misure per la riduzione del rischio di guasto dovuto al LEMP degli apparecchi elettrici ed elettronici)
t_{ex}	Tempo di permanenza della presenza di una atmosfera esplosiva pericolosa
W	Larghezza della struttura
Z	Zone nella struttura

2. Base normativa

La serie di norme CEI EN 62305 (CEI 81-10) è composta dalle seguenti parti:

- CEI EN 62305-1 (CEI 81-10/1):2013 - "Protezione contro i fulmini – parte 1: Principi generali“
- CEI EN 62305-2 (CEI 81-10/2):2013 - "Protezione contro i fulmini – parte 2: Valutazione del rischio“
- CEI EN 62305-3 (CEI 81-10/3):2013 - "Protezione contro i fulmini – parte 3: Danno materiale alle strutture e pericolo per le persone“
- CEI EN 62305-4 (CEI 81-10/4):2013 - "Protezione contro i fulmini – parte 4: Impianti elettrici ed elettronici nelle strutture“

3. Rischio e sorgente di danno

Per evitare danni da fulminazione devono essere effettuate delle misure di protezione mirate sulla struttura da proteggere. La valutazione del rischio descritta nella norma CEI EN 62305-2 (CEI 81-10/2):2013 contiene un'analisi del rischio con la quale può essere determinata l'esigenza di protezione di una struttura nel caso di fulminazione. L'obiettivo dell'analisi del rischio è di ridurre, tramite misure di protezione, il rischio ad un livello accettabile.

Dalla valutazione del rischio secondo CEI EN 62305-2 (CEI 81-10/2):2013 per la struttura di seguito eseguita, risulterà la necessità o meno di prevedere delle misure di protezione. Tramite l'analisi viene individuato il potenziale pericolo della struttura e, se necessario, vengono definite le misure di protezione da adottare per ridurre il rischio. Il risultato della valutazione del rischio può essere non solo la classe dell'LPS, ma un intero concetto di protezione, incluso le necessarie misure di schermatura contro il LEMP.

Il risultato sarà la scelta economicamente più sensata delle misure di protezione, adeguate alle presenti caratteristiche della struttura e della sua destinazione d'uso.

4. Dati sul progetto

4.1 Rischi da considerare

A seconda della tipologia e la destinazione d'uso della struttura sono stati selezionati e analizzati i seguenti rischi:

Rischio R_1:	Rischio della perdita di vite umane;	R_T: 1,00E-05

Con la scelta dei rischi è stato definito anche il rischio tollerabile R_T.

L'obiettivo della valutazione del rischio è ridurre il rischio presente, tramite una scelta economicamente sensata delle misure di protezione, ad un rischio tollerabile (accettabile) R_T.

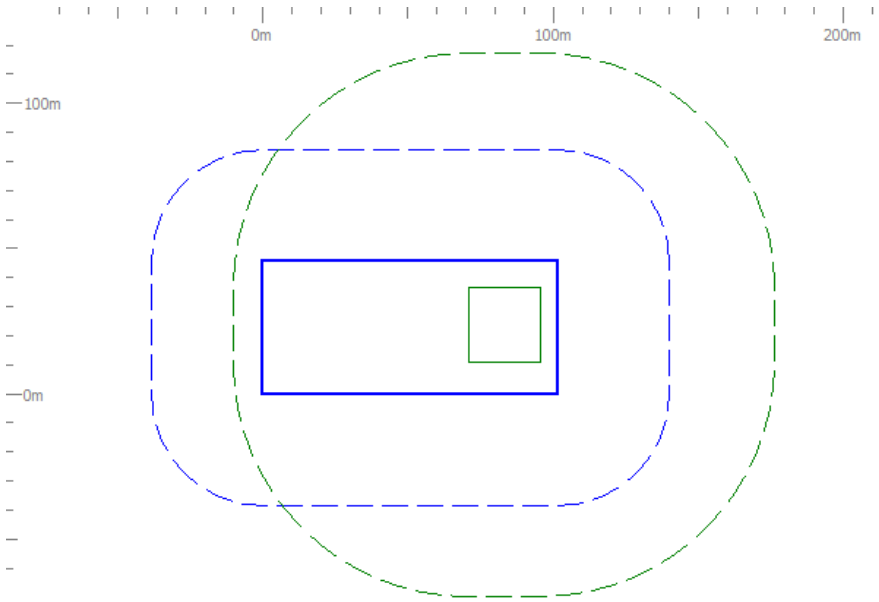
4.2 Parametri geografici e della struttura

La base per la valutazione del rischio secondo CEI EN 62305-2 (CEI 81-10/2):2013 è la densità di fulmini al suolo N_g. Essi definisce il numero di fulminazioni all'anno per km².
Per la posizione della struttura è stato determinato un valore di **N_g = 5,37 fulminazioni/anno/km²**.
Da questo risulta il numero equivalente di giornate temporalesche all'anno di 53,70 giorni.

Determinante per il pericolo di una fulminazione diretta sono le dimensioni della struttura. In base alle dimensioni vengono determinate le aree di raccolta delle fulminazioni dirette/indirette.

Sulla base delle dimensioni dell'edificio inserite, risultano le seguenti aree di raccolta:

Area di raccolta delle fulminazioni dirette:	32.984,00 m²
Area di raccolta delle fulminazioni indirette (in prossimità della struttura)	939.255,00 m²



L'ambiente circostante alla struttura è un elemento importante nella determinazione del numero di possibili fulminazioni dirette/indirette. Per la struttura in ogegtto l'ambiente circostante è stato definito nel seguente modo:
Coefficiente di posizione C_{db}: 0,50

Considerando la densità di fulmini al suolo in funzione alla grandezza e all'ambiente circostante alla struttura, è previsto un numero di eventi di:

- fulminazioni dirette nella struttura N_D = 0,0886 fulminazioni/anno,
- fulminazioni indirette nella struttura N_M = 5,0438 fulminazioni/anno

4.3 Suddivisione della struttura in zone di protezione/zone

Per quest'analisi la struttura è stata suddivisa nelle seguenti zone di protezione da fulmine/zone:

- LPZ 0B - Struttura protetta dalla fulminazione diretta

- LPZ 1 - Zona interna della struttura protetta

Le singole zone di protezione contro il fulmine vengono definite dalla norma e nel seguente modo:

LPZ 0_B	=	Zona protetta contro la fulminazione diretta, ma dove il pericolo è l'esposizione al totale campo elettro magnetico. Gli impianti interni possono essere soggetti a frazioni della corrente di fulmine.
LPZ 1	=	Zona in cui la corrente è limitata dalla suddivisione della corrente di fulmine e dalla presenza d'interfacce di separazione e/o SPD al confine della zona stessa. Schermi locali possono attenuare il campo elettromagnetico associato alle correnti di fulmine.
LPZ 2 … n	=	Zona in cui la corrente è ulteriormente limitata dalla suddivisione della corrente di fulmine e dalla presenza d'interfacce di separazione e/o di ulteriori SPD ai confini delle diverse zone. Schermi locali addizionali possono essere utilizzati per attenuare ulteriormente il campo elettromagnetico.

	L1tz	L1nz
Z1 (LPZ 0B)	2.920 ore/anno	5 persone
Z2 (LPZ 1)	864 ore/anno	1.100 persone

L1tz: Tempo per cui le persone sono presenti nella zona
L1nz: Numero di persone nella zona

4.4 Servizi entranti

Nella valutazione del rischio devono essere considerati tutti i servizi entranti o uscenti dalla struttura. Tubazioni elettricamente continue non devono essere considerate a patto che siano collegate alla barra equipotenziale principale dell'edificio. Nel caso in cui tale collegamento non fosse dato, è necessario considerare nella valutazione del rischio anche il pericolo delle tubazioni elettricamente continue (considerare richieste di equipotenzialità!).

Nella valutazione del rischio per la struttura Oggetto sono state definite le seguenti linee:

- LINEA MT

- LINEA GRUPPO ELETTROGENO

Per ogni linea sono stati definiti parametri come per esempio:

- tipo di linea (linea aerea/interrata)
- lunghezza della linea (all'esterno dell'edificio)
- ambiente
- struttura connessa
- caratteristiche della posa interna (schermata/non schermata)
- tensione di tenuta minima (tensione di tenuta degli apparecchi finali)

In base a queste informazioni è stato definito il potenziale pericolo, dovuto a fulminazioni sulla e in prossimità della linea, per la struttura e del contenuto ed successivamente inserito nell'analisi del rischio.

4.5 Carico d'incendio

Il rischio d'incendio è uno dei criteri più importanti nella determinazione delle misure di protezioni necessarie. Il rischio d'incendio per la struttura Oggetto è stato definito:

	Z1	Z2
Nessun rischio d'incendio o di esplosione	☐	☐
Rischio d'incendio ridotto	☐	☐
Rischio d'incendio ordinario	☑	☑
Rischio d'incendio elevato	☐	☐
Esplosione - Zona EX 2, 22	☐	☐
Esplosione - Zona EX 1, 21	☐	☐
Esplosione - Zona EX 0, 20 ed esplosivi solidi	☐	☐

4.6 Misure di protezione antincendio

Le seguenti misure di protezione sono state selezionate nella valutazione del rischio per ridurre le conseguenze di un incendio:

	Z1	Z2
Nessune misure di protezioni presenti	☑	☐
Estintori, impianto fisso di estinzione operato manualmente, impianto di allarme manuale, idranti, compartimentazione antincendio, vie di fuga protette	☐	☑
Impianto fisso di estinzione e di allarme automatico	☐	☐

4.7 Pericoli particolari delle persone nella struttura

Il pericolo di panico nella struttura è stato classificato, in base al numero di persone, nel seguente modo:

	Z1	Z2
Nessun pericolo particolare	☑	☐
Livello ridotto di panico (p.es. struttura limitata a due piani ed un numero di persone inferiore a 100)	☐	☐
Livello medio di panico (p.es. strutture destinate ad eventi culturali o sportivi con un numero di partecipanti compreso tra 100 e 1000 persone)	☐	☐
Difficoltà di evacuazione (p.es. strutture con presenza di persone impossibilitate a muoversi, ospedali)	☐	☐
Livello elevato di panico (p.es. strutture desitante ad eventi culturali o sportivi con un numero di partecipanti maggiore di 1000 persone)	☐	☑

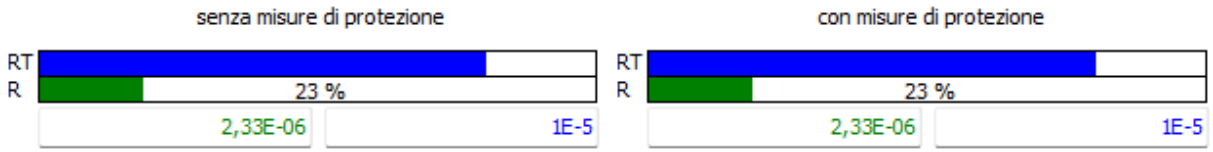
5. Valutazione del rischio

Di seguito vengono valutati i rischi definiti al punto 4.1.
Per ogni rischio viene indicato con una barra blu il rischio accettabile e con una barra verde/rossa il rischio calcolato.

5.1 Rischio R1, Vita umana

Per le persone all'esterno ed all'interno della struttura è stato calcolato il seguente rischio:

Rischio tollerabile R_T:	1,00E-05
Rischio calcolato R1 (non protetto):	2,33E-06
Rischio calcolato R1 (protetto):	2,33E-06



Per ridurre il rischio presente sono da prevedere le misure di protezione di seguito descritte.
Per strutture il cui rischio calcolato è inferiore al rischio tollerabile RT, la sezione delle misure di protezione resterà vuota.

5.2 Scelta misure di protezione

Grazie alla scelta delle seguenti misure di protezioni il presente rischio è stato ridotto ad un livello accettabile.

La seguente selezione delle misure di protezione è una parte della valutazione del rischio per la struttura in oggetto, valida solo in combinazione con essa.

Se dalla valutazione del rischio non risulta necessario prevedere delle misure di protezione (il rischio calcolato risulta inferiore al rischio tollerabile R_T), la seguente parte della relazione resterà vuota.

Provvedimenti Con protezione / stato previsto:

Area	Provvedimenti	Coefficiente

6. Informazioni generali

6.1 Componenti dell'LPS esterno

Componenti per l'impianto parafulmine, che vengono utilizzati per la realizzazione dell'LPS esterno, devono rispettare prescrizioni meccaniche ed elettriche riportati nella serie di Norme EN 62561-x. Questa serie di Norme sono suddivisi p.es. nelle seguenti parti:

- EN 62561-1:2012	Prescrizioni per i componenti di connessione
- EN 62561-2:2012	Prescrizioni per i conduttori di terra e i dispersori
- EN 62561-3:2012	Prescrizioni per gli spinterometri
- EN 62561-4:2011	Prescrizioni per i componenti di fissaggio
- EN 62561-5:2011	Prescrizioni per la verifica di involucri di ispezione (pozzetti) e di componenti a tenuta per dispersori (passanti)

6.1.1 EN 62561-1:2012 Prescrizioni per i componenti di connessione

Le richieste a componenti di connessione, come per esempio morsetti, sono definiti nella EN 62561-1. Ciò significa per l'installatore dell'impianto parafulmine, che è necessario scegliere i componenti di connessione a seconda della capacità di tenuta (H o N) nel punto d'installazione. Nel caso di un'asta di captazione (100% della corrente di fulmine) sarà pertanto necessario utilizzare un morsetto con capacità di tenuta H (100 kA) e p.es. in una maglia di captazione o per un'asta di adduzione (corrente di fulmine già suddivisa) un morsetto con capacità di tenuta N (50 kA). La possibilità di utilizzare un componente di connessione per tali casi di applicazione, deve essere attestato da un certificato di prova del costruttore.

6.1.2 EN 62561-2:2012 Prescrizioni per i conduttori di terra e i dispersori

La EN 62561-2 pone delle richieste specifiche ai conduttori, come p.es. conduttori di captazione e calate e conduttori di terra. Tali richieste sono suddivise nel seguente modo:

- caratteristiche meccaniche (resistenza alla trazione e resistenza all'allungamento minima),
- caratteristiche elettriche (resistenza specifica massima) e
- caratteristiche protettive contro la corrosione (invecchiamento artificiale).

Per conduttori e dispersori di terra la Norma EN 62561-2 stabilisce le richieste. Importante in questo caso è soprattutto il tipo di materiale, la geometria, misure minime come anche le caratteristiche meccaniche ed elettriche. Queste richieste provenienti dalla Norma sono caratteristiche rilevanti di un prodotto, le quali devono essere riportati nella documentazione e nelle schede tecniche del costruttore.

6.1.3 EN 62561-3:2012 Prescrizioni per gli spinterometri

Spinterometri di sezionamento possono essere utilizzati per la separazione galvanica di un sistema di messa a terra. La norma EN 62561-3 richiede per gli spinterometri di sezionamento, che, se installati secondo le indicazioni del costruttore, siano affidabili, resistenti e sicuri per persone e per gli oggetti circondanti.

6.1.4 EN 62561-4:2011 Prescrizioni per i componenti di fissaggio

La Norma EN 62561-4 definisce le esigenze e le prove per staffe portafilo metalliche e non metalliche, che vengono utilizzate in contatto con conduttori di captazione e di calate.

6.1.5 EN 62561-5:2011 Prescrizioni per la verifica di involucri di ispezione (pozzetti) e di componenti a tenuta per dispersori (passanti)

Tutti gli involucri di ispezione e i componenti di tenuta devono essere progettati e costruiti in modo da non creare, nel caso di un loro utilizzo secondo regola d'arte, pericoli per le persone e per l'ambiente.
La Norma EN 62561-5 definisce le richieste e le prove per gli involucri di ispezione (p.es. pressione di sollecitazione) e i componenti di tenuta (prova di tenuta stagna).

7. Spiegazione dei termini

Sistema coordinato di SPD
gruppo di SPD adeguatamente scelto, coordinato ed installato per ridurre guasti degli impianti elettrici ed elettronici.

Interfacce di separazione
dispositivi atti ad attenuare gli impulsi condotti sulle linee entranti in una LPZ. Sono compresi i trasformatori di separazione muniti di schermo connesso a terra tra gli avvolgimenti, cavi in fibra ottica privi di parti metalliche ed opto-isolatori. Le caratteristiche di tenuta di detti dispositivi sono intrinsecamente adatte allo scopo o rese tali mediante SPD.

Impulso elettromagnetico del fulmine LEMP [ingl: lightning electromagnetic impulse]
tutti gli effetti elettromagnetici della corrente di fulmine che possono generare impulsi e campi elettromagnetici mediante accoppiamento resistivo, induttivo e capacitivo.

Protezione contro il fulmine LP [ingl: lightning protection]
sistema completo usato per la protezione contro il fulmine delle strutture, dei loro impianti interni, del loro contenuto e delle persone, costituito in generale da un LPS e dalle SPM.

Livello di protezione LPL [ingl: lightning protection level]
numero, associato ad un gruppo di valori dei parametri della corrente di fulmine, relativo alla probabilità che i correlati valori massimo e minimo di progetto non siano superati in natura. Il livello di protezione e usato per dimensionare le misure di protezione sulla base del corrispondente gruppo di parametri della corrente di fulmine.

LPS lightningproctectionsystem – sistema di protezione contro il fulmine
impianto completo usato per ridurre il danno materiale dovuto alla fulminazione diretta della struttura.

EB – collegamento equipotenziale (ingl: lightning equipotential bonding)
connessione tra corpi metallici e l'LPS, mediante connessione diretta o tramite limitatore di sovratensioni, per ridurre le differenze di potenziale dovute alle correnti di fulmine.

Sistema di SPD [ingl: surge protective device]
gruppo di SPD adeguatamente scelto, coordinato ed installato per ridurre guasti degli impianti elettrici ed elettronici.

Nodo
punto di una linea oltre il quale la propagazione di impulsi si assume trascurabile: Esempi di nodo sono Ia barra di distribuzione a valle di un trasformatore AT/BT su una linea di energia, un multiplexer o un apparato xDSL su una linea di telecomunicazione.

Danno materiale
danno ad una struttura (o a quanto in essa contenuto) o a un servizio causato dagli effetti meccanici, termici, chimici o esplosivi del fulmine.

Danno ad esseri viventi
danni, inclusa la perdita della vita, causati a uomini o animali per elettrocuzione provocata da tensioni di contatto e di passe generate dal fulmine.

Rischio R
valore della probabile perdita media annua (uomini e beni) dovuta al fulmine, riferito al valore complessivo (uomini e beni) della struttura da proteggere.

Zone di una struttura ZS
parte di una struttura con caratteristiche omogenee, in cui può essere usato un gruppo unico di parametri

per la valutazione di una componente di rischio.

Zona di protezione LPZ [ingl: lightning protection zone]
zona in cui e definite l'ambiente elettromagnetico creato dal fulmine. I confini di zona di una LPZ non sono necessariamente costituiti da elementi fisici (es. pareti, pavimento e soffitto).

Schermo magnetico
schermo metallico chiuso, continuo o a maglia, che racchiude la struttura da proteggere, o una parte di essa, usato per ridurre i guasti degli impianti elettrici ed elettronici.

Cavo di protezione contro il fulmine
cavo speciale con isolamento incrementato il cui schermo e in continuo contatto con il suolo sia direttamente che attraverso la guaina di plastica.

Condotto per la protezione dei cavi contro il fulmine
condotto per cavi avente bassa resistività ed in contatto con il suolo (p.es. calcestruzzo con ferri di armatura interconnessi o condotto metallico).

ALLEGATO 4

VERIFICHE IMPIANTO DI DIFFUSIONE SONORA EVAC

Teatro Nuovo di Torino

B.Tonello
Manens

giovedì 27 febbraio 2025

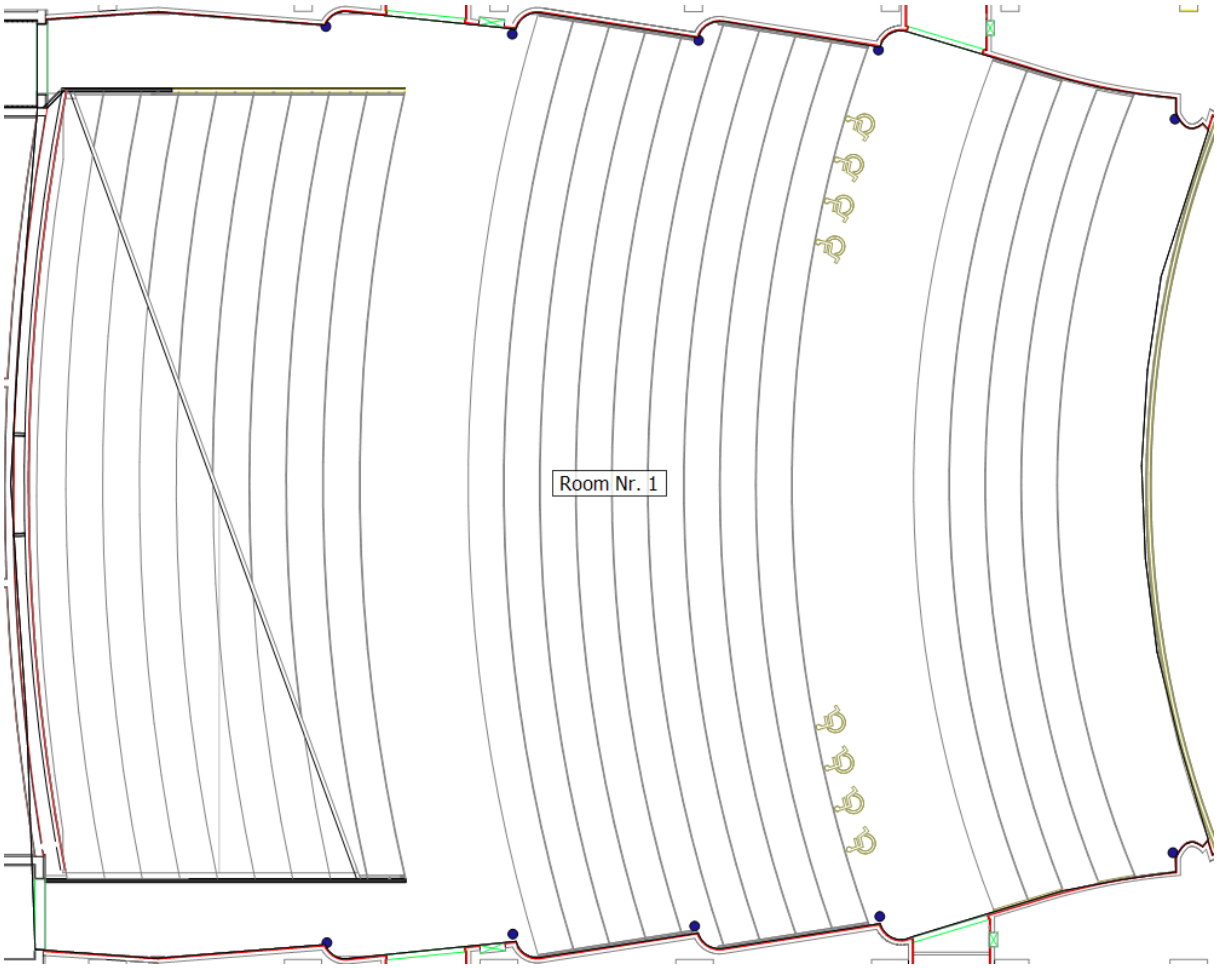
Project Information

Title:	**Teatro Nuovo di Torino**
Author:	**B.Tonello**
Company:	**Manens**
Notes:	**Tempo di riverbero pari a 1.3s come da indicazioni di studio austico.**
Temperature:	**20,0°C**
Pressure:	**Standard (1010,0 hPa)**
Humidity:	**Standard (60%)**
Input Signal Spectrum:	**Program (IEC 60268-1)**
Input Signal Crest Factor:	**Program Noise, Speech**
Calculation Accuracy:	**Fast Approximation**
STI Standard:	**IEC 60268-16 (2020)**
Software Version:	**EASE Evac, Version 2.0.60**

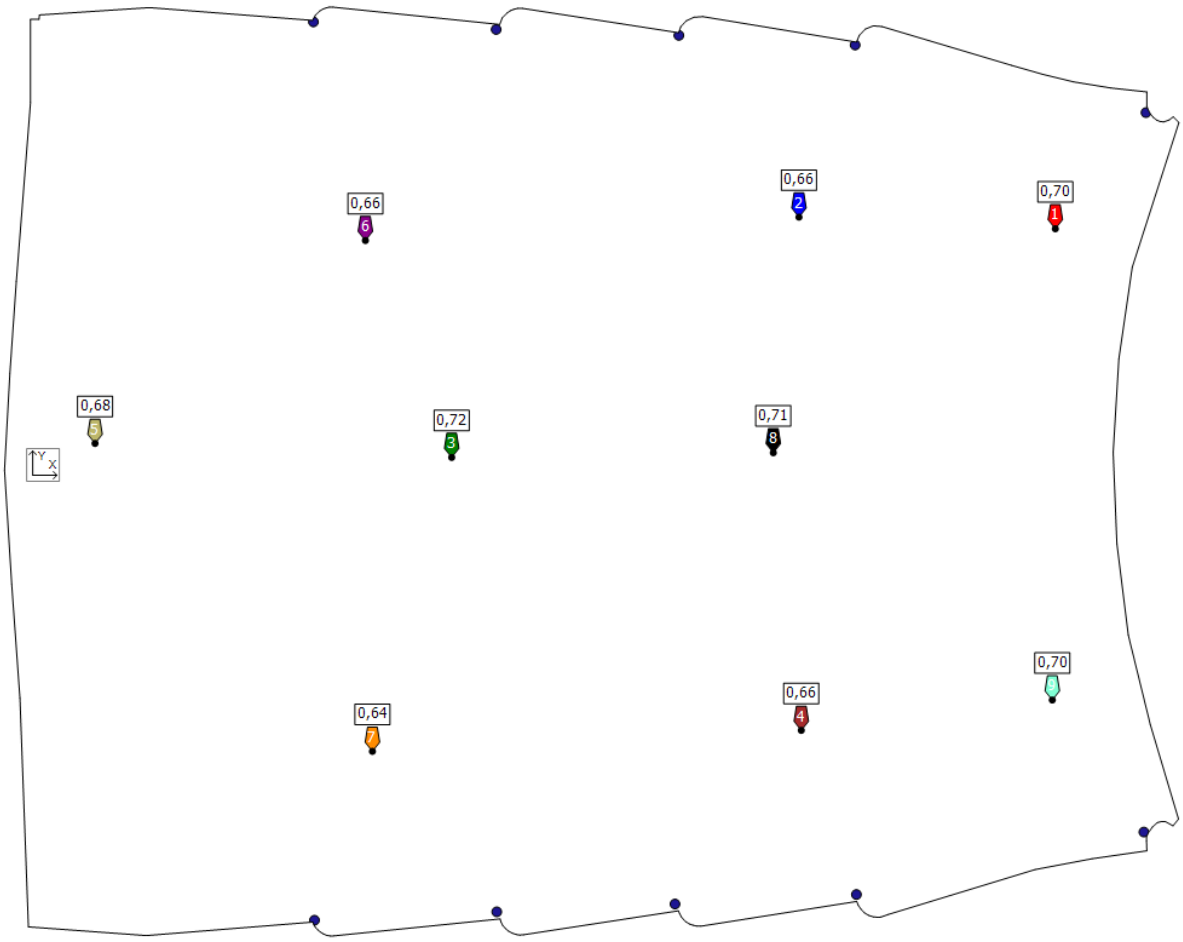
Sound Sources Summary

Quantity	Type
10	**C6120-EN_W (PASO)**

Layout Overview



Room: Room Nr. 1



Label:	**Room Nr. 1**
Room Height:	**10,50 m**
Dimensions (WxD):	**30,61 m x 24,19 m**
Volume:	**7058,9 m³ (net: 7058,9 m³)**
Surface Area:	**2455,3 m² (net: 2455,3 m²)**
Ear Height:	**1,50 m**
Network Voltage:	**100 V**
Power Consumption:	**100 W**

Sound Sources Summary

Quantity	Type
10	C6120-EN_W (PASO)

Noise

Frequency Band [Hz]	Noise Level
Broadband	65,0 dB

Reverberation Time

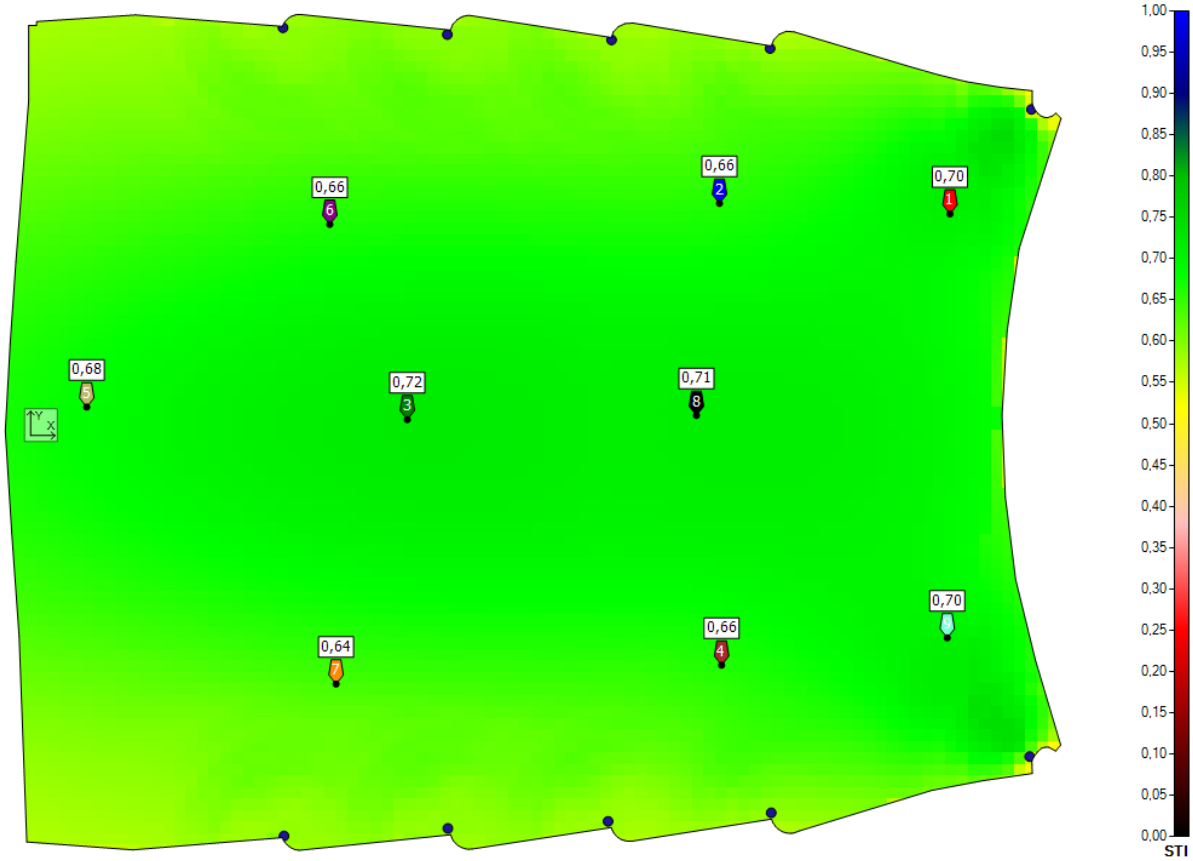
Frequency Band [Hz]	Reverberation Time (Manual)
125	1,30 s
250	1,30 s
500	1,30 s
1000	1,30 s
2000	1,30 s
4000	1,30 s
8000	1,30 s

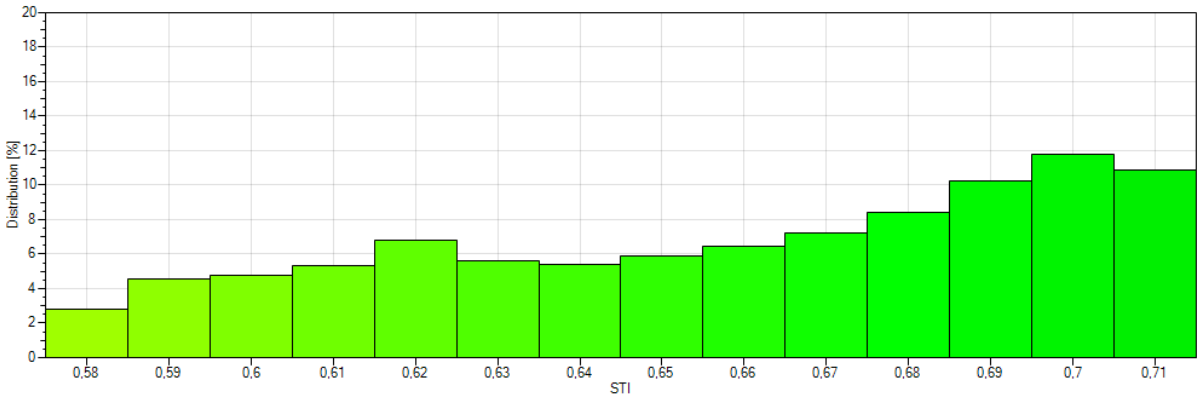
Sound Sources

Nr.	Mounting	Type	X [m]	Y [m]	Z [m]	Hor [°]	Ver [°]	Tap Settings
1	Ceiling	C6120-EN_W	21,43	11,20	3,00	-141,8	-5,0	50W (Transf)
2	Ceiling	C6120-EN_W	12,08	11,61	3,00	-125,9	-5,0	50W (Transf)
3	Ceiling	C6120-EN_W	29,01	9,44	2,00	-136,5	-5,0	50W (Transf)
4	Ceiling	C6120-EN_W	16,84	11,45	3,00	-139,4	-5,0	50W (Transf)
5	Ceiling	C6120-EN_W	7,32	11,80	3,00	-125,9	-5,0	50W (Transf)
6	Ceiling	C6120-EN_W	7,34	-11,59	3,00	122,6	-5,0	50W (Transf)
7	Ceiling	C6120-EN_W	12,09	-11,37	3,00	122,6	-5,0	50W (Transf)
8	Ceiling	C6120-EN_W	16,74	-11,17	3,00	122,6	-5,0	50W (Transf)
9	Ceiling	C6120-EN_W	21,47	-10,92	3,00	132,9	-5,0	50W (Transf)
10	Ceiling	C6120-EN_W	28,96	-9,29	2,00	134,7	-5,0	50W (Transf)

Mapping and Distribution

STI





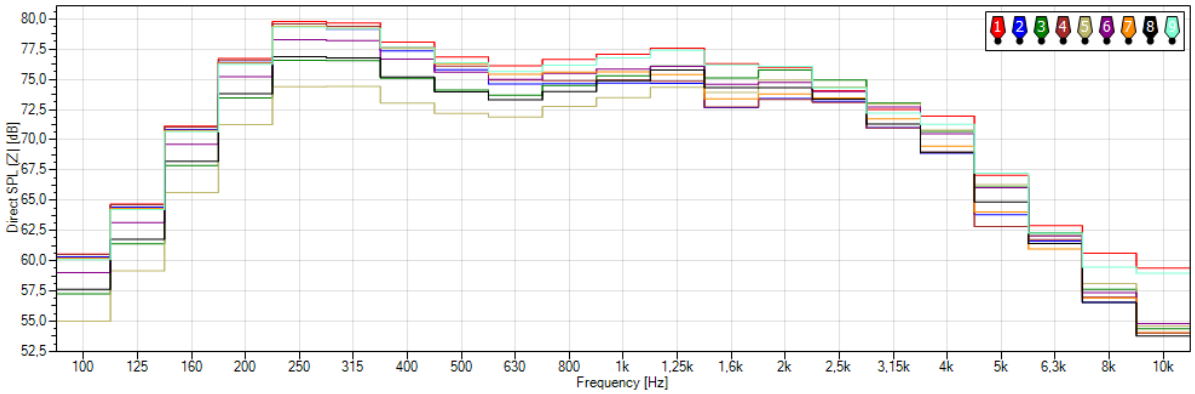
Average:	**0,66 ±0,04**
Average + Std. Dev.:	**0,70**
Average - Std. Dev.:	**0,62**
Max. Value:	**0,74**
Min. Value:	**0,51**
Data Points:	**6277**

Area Covered:	**STI**	**Average**

95%	≥0,59	0,66
90%	≥0,60	0,67
85%	≥0,61	0,67
80%	≥0,62	0,67

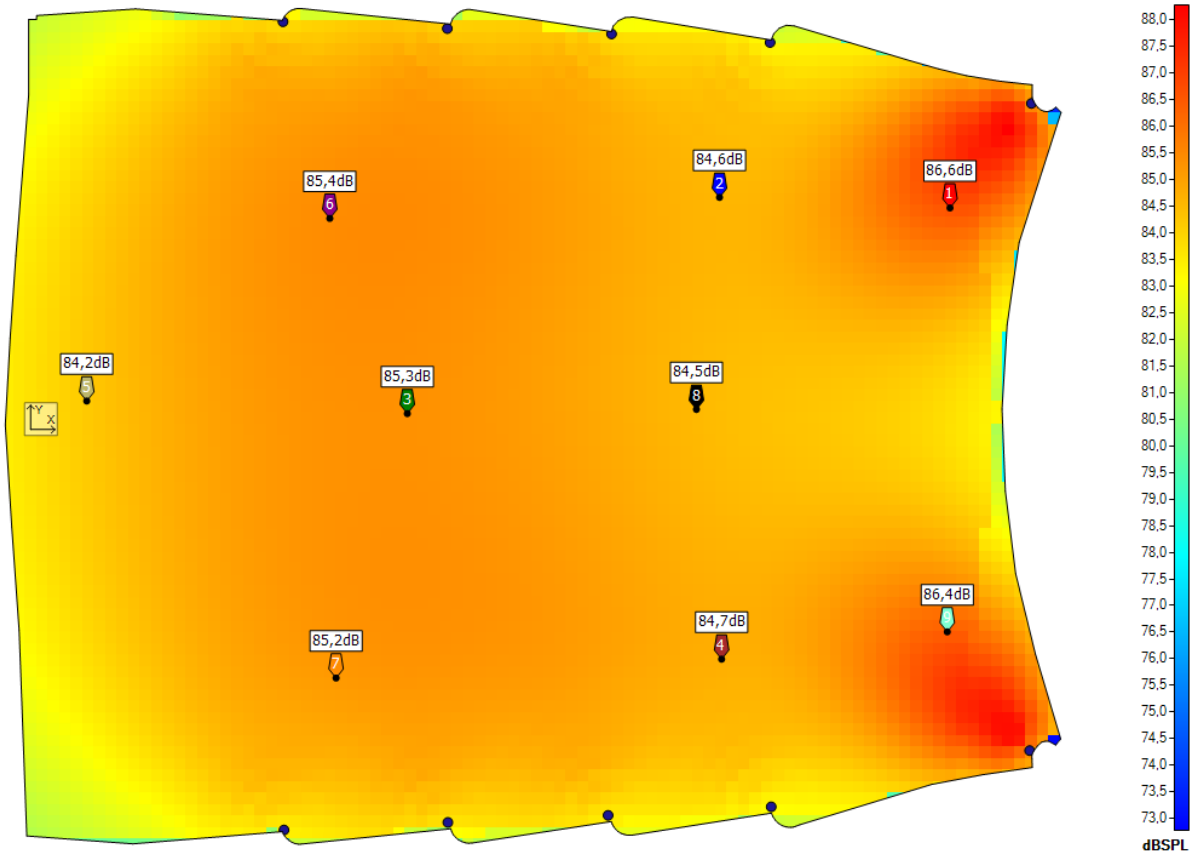
Receivers

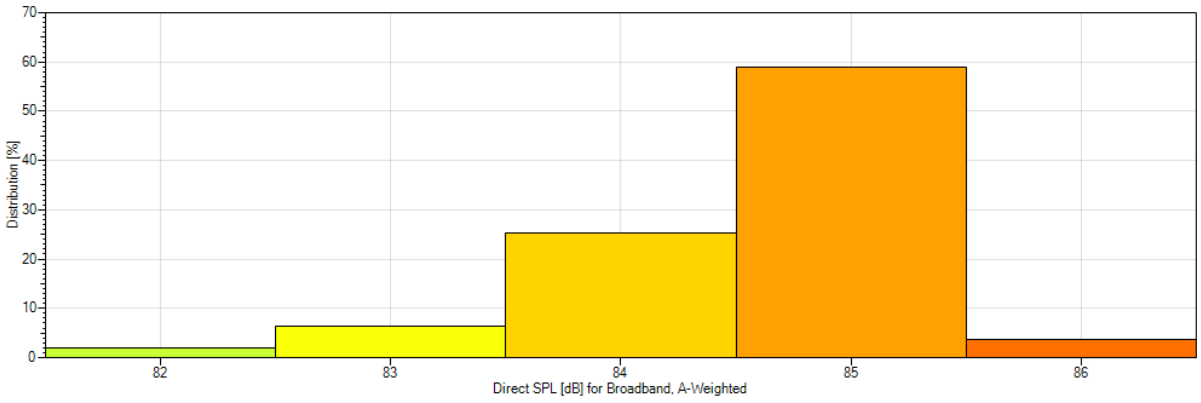
	X [m]	Y [m]
Receiver 1	26,65	6,42
Receiver 2	19,97	6,72
Receiver 3	10,92	0,46
Receiver 4	20,03	-6,64
Receiver 5	1,63	0,83
Receiver 6	8,67	6,11
Receiver 7	8,85	-7,19
Receiver 8	19,30	0,58
Receiver 9	26,57	-5,85



Additional Mappings

Direct SPL (A-Weighted), Broadband



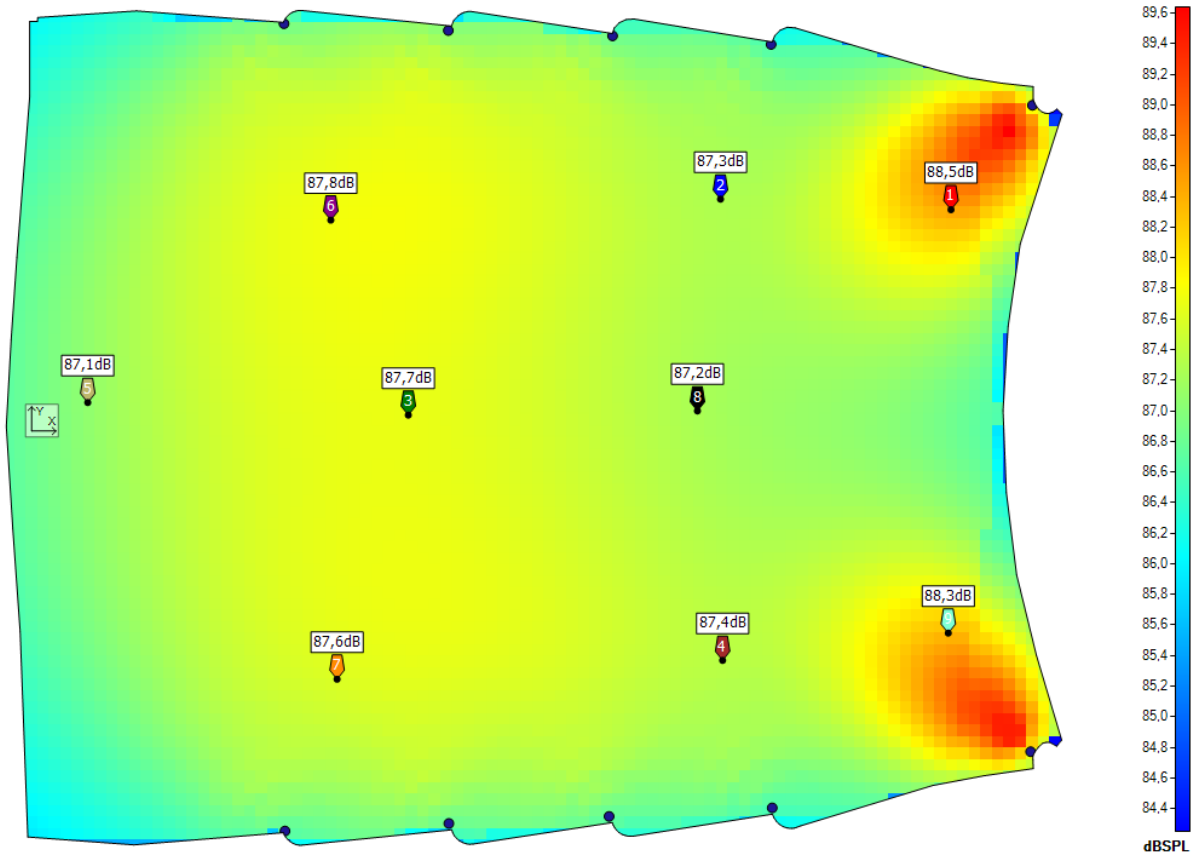


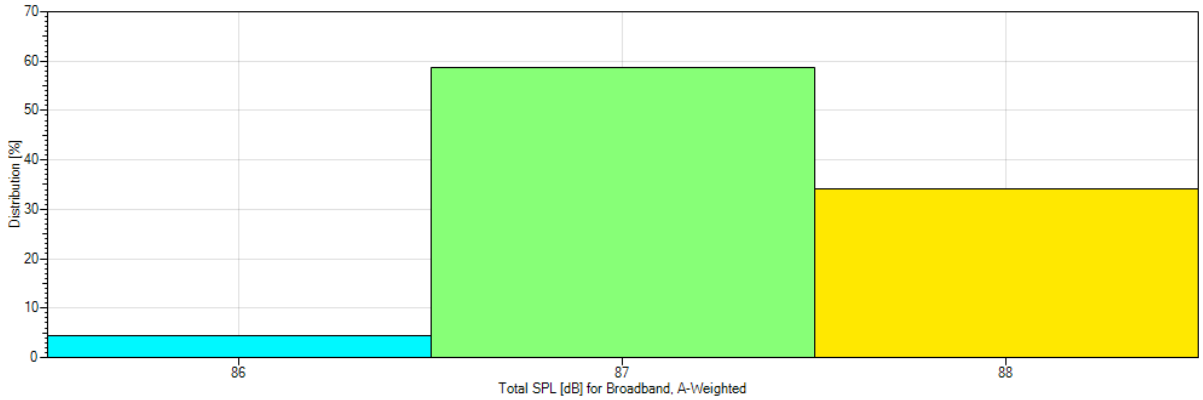
Average:	**84,6 dB ±1,1 dB**
Average + Std. Dev.:	**85,7 dB**
Average - Std. Dev.:	**83,5 dB**
Max. Value:	**88,3 dB**
Min. Value:	**72,8 dB**
Data Points:	**6277**

Area Covered:	**Direct SPL(A)**	**Average**

95%	**≥82,9 dB**	**84,8 dB**
90%	**≥83,5 dB**	**84,8 dB**
85%	**≥83,8 dB**	**84,9 dB**
80%	**≥84,1 dB**	**85,0 dB**

Total SPL (A-Weighted), Broadband





Average:	**87,3 dB ±0,5 dB**
Average + Std. Dev.:	**87,8 dB**
Average - Std. Dev.:	**86,8 dB**
Max. Value:	**89,6 dB**
Min. Value:	**84,3 dB**

Data Points:	6277

Area Covered:	Total SPL(A)	Average
95%	≥86,5 dB	87,4 dB
90%	≥86,7 dB	87,4 dB
85%	≥86,9 dB	87,5 dB
80%	≥87,0 dB	87,5 dB