

## Cavo orizzontale U/UTP 250 MHz 24 AWG Categoria 6 Fire protect - Cca

cod. 34113

Cavo U/UTP Cat. 6 guaina LSOH 4X2X24 AWG box da 305 mt.

cod. 34114

Cavo U/UTP Cat. 6 guaina LSOH 4X2X24 AWG bobine da 500 mt.

SCHEDA TECNICA

### ● Costruzione del cavo

1. **Conduttore:**  
Rame AWG24 isolamento  $\varnothing \leq 0,51 \text{ mm} \pm 0,01 \text{ mm}$
2. **Cavo twistato**
3. **Croce di separazione**
4. **Costruzione cavo:**  
4 coppie
5. **Rivestimento esterno:**  
LSOH-FR RAL 6024 Green - flame retardant
6. **Diametro totale cavo esterno:**  
 $5,3 \pm 0,5 \text{ mm}$

### ● Codice colore

Blu + Bianco/Blu  
Arancio + Bianco/Arancio  
Verde + Bianco/Verde  
Marrone + Bianco/ Marrone

### ● Direttive/normative

**Applicazioni:**  
IEEE 802.3 - IEE 802.5 - FDDI - ATM - RNIS

**Cavi:**  
IEC 61156-5 - EN 50288-6-1

**Sistemi Cablaggio:**  
IS 11801 ed.2 - EN 50173-1 - EIA/TIA 568-C2

**Norme installazione sist. di cablaggio:**  
EN 50174

**Direttive:**  
RoHS 2011/65/UE  
Reach 1907/2006/EC



### ● Resistenza al fuoco

**Euroclass:** Cca, S1a, d1, a1  
**Dichiarazione di prestazione:** CPRUTP6-250/1  
**Standards:** IEC 60332-1, EN 50399, IEC 60754-2  
NF C 32-070 2.1 (C2) / IEC 60332-1 / EN 60332-1  
IEC 61034-2 / EN 61034-2  
IEC 60754-2 / EN 50267-2-2 / EN 50267-2-3  
IEC 60754-1 / EN 50267-1

### ● Caratteristiche meccaniche

**Raggio Curvatura:**  
Dinamico (installazione)  $\geq 50 \text{ mm}$   
Statico (installato)  $\geq 25 \text{ mm}$

**Temperature:**  
In esercizio  $-20^\circ\text{C}$  at  $+60^\circ\text{C}$   
Installazione  $0^\circ\text{C}$  at  $+50^\circ\text{C}$   
Trasporto e deposito  $0^\circ\text{C}$  at  $+50^\circ\text{C}$

### ● Caratteristiche elettriche a 20°C

**Resistenza conduttore:**  
 $\leq 9,38 \Omega / 100 \text{ mt.}$

**Robustezza dielettrica:**  
Corrente continua 50 Hz 1kV per 1 minute = No breakdown

**Resistenza di isolamento:**  
 $(500 \text{ V}) \geq 5000 \text{ M}\Omega \cdot \text{km}$

**Capacità non bilanciata:**  
Terra reale  $\leq 1600 \text{ pF} / \text{km}$

**Impedenza caratteristica:**  
at 100 MHz  $100 \pm 5 \Omega$

**Velocità:**  
Nominale 66 %

### FIRE EUROCLASS



| Frequenze (MHz)                          | 1    | 4    | 10   | 16   | 20   | 25   | 31.25 | 62.5 | 100  | 200  | 250  |
|--|------|------|------|------|------|------|-------|------|------|------|------|
| Return loss $\geq \text{dB}/100\text{m}$ | 19,1 | 21,0 | 21,0 | 20,0 | 19,5 | 19,0 | 18,5  | 16,0 | 14,0 | 11,0 | 10,0 |
| Attenuation $\leq \text{dB}/100\text{m}$ | 3,0  | 3,5  | 5,5  | 7,0  | 7,9  | 8,9  | 10,0  | 14,4 | 18,6 | 27,4 | 31,1 |
| NEXT $\geq \text{dB}/100\text{m}$        | 65,0 | 64,1 | 57,8 | 54,6 | 53,1 | 51,5 | 50,0  | 45,1 | 41,8 | 36,9 | 35,3 |
| PSNEXT $\geq \text{dB}/100\text{m}$      | 62,0 | 61,8 | 55,5 | 52,2 | 50,7 | 49,1 | 47,5  | 42,7 | 39,3 | 34,3 | 32,7 |
| ACR-F $\geq \text{dB}/100\text{m}$       | 64,2 | 52,1 | 44,2 | 40,1 | 38,2 | 36,2 | 34,3  | 28,3 | 24,2 | 18,2 | 16,2 |
| PSACR-F $\geq \text{dB}/100\text{m}$     | 61,2 | 49,1 | 41,2 | 37,1 | 35,2 | 33,2 | 31,3  | 25,3 | 21,2 | 15,2 | 13,2 |

# Compliance Statement

No. 2019-310

## Data communication cable, Category 6

### Company

TECNOFIBER SRL  
Via Roma no. 17  
24020 Gorle (BG)  
Italy

### Product description

Unscreened cable (U/UTP) characterised up to 250 MHz  
Horizontal floor wiring cable, 100 Ω  
4 twisted pairs  
Flame retardant, halogen free

### Product identification

FR-UTP-L6-TCK-LAN  
34113 - 34114

### Generic cabling and cabling components standards - Category 6 cable requirements

- ISO/IEC 11801-1:2017 (Ed. 1.0) / ISO/IEC 11801-2:2017 (Ed. 1.0)
- IEC 61156-5:2012 (Ed. 2.1)
- EN 50173-1:2018 / EN 50173-2:2018
- EN 50288-6-1:2013
- TIA-568.2-D:2018

### Standards for flammability, halogen acidity, and smoke performance

- IEC 60332-1-1:2015 (Ed. 1.1) / IEC 60332-1-2:2015 (Ed. 1.1)
- IEC 60754-2:2011 (Ed. 2.0)
- IEC 61034-1:2013 (Ed. 3.1) / IEC 61034-2:2013 (Ed. 3.1)

### Technical report

T926740-01, DANAK-19/20152

### EC Cabling product ID

5349

### CS valid until

1 April 2020

This product has been tested by FORCE Technology and complies with the requirements of the above specified standards and "Terms and conditions for the EC VERIFIED programme for Generic and Coaxial Cabling", DQP231006. The product takes part in a maintenance schedule, which implies that FORCE Technology performs a quality audit of the manufacturer's production and QA sites. The maintenance testing of the product is performed on a sample basis.

Hørsholm, 24 April 2019

  
Lars Lindskov Pedersen  
Test Manager



Dennis Andersen  
Head of Department

|  |   |
|--|---|
| <b>Codice di identificazione unico del prodotto-tipo</b> | UTP-305L6CCA24  |
| <b>Identificazione del prodotto</b>                      | 34113   |
| <b>Usi previsti</b>                                      | Cavo /conduttore isolato per applicazioni generali nei lavori di costruzione soggetti a prescrizioni di reazione al fuoco |
| <b>Fabbricante</b>                                       | TECNOFIBER S.R.L. - GORLE (BG)  |

| <b>Caratteristiche essenziali</b> | <b>Sistemi di VVCP</b> |
|-----------------------------------|------------------------|
| <b>Reazione al fuoco</b>          | 3                      |
| <b>Sostanze pericolose</b>        | 3                      |

|                             |                            |
|-----------------------------|----------------------------|
| <b>Norma armonizzata</b>    | EN 50575/ :2014+ A1 : 2016 |
| <b>Organismi notificati</b> | 1783                       |

**Prestazioni dichiarate**

| <b>Caratteristiche essenziali</b> | <b>Performance</b> |
|-----------------------------------|--------------------|
| <b>Reazione al fuoco</b>          | Cca - s1a,d1,a1    |
| <b>Sostanze pericolose</b>        | NPD                |

Dichiarazione di prestazione disponibile sul sito: <http://www.tcklan.it>

Dichiarazione di prestazione disponibile sul sito: <http://www.tecnofiber.it>

La prestazione del prodotto sopra identificato è conforme all'insieme delle prestazioni dichiarate. La presente dichiarazione di responsabilità viene emessa, in conformità al regolamento (UE) n°305/2011, sotto la sola responsabilità del fabbricante sopra identificato.

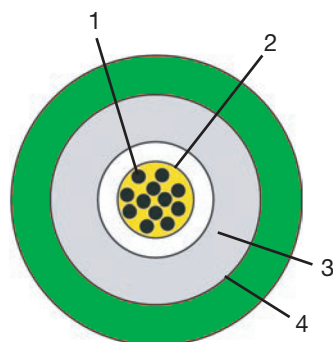
Firmato a nome e per conto del fabbricante da:

Gorle , addì 15/06/2018

RESPONSABILE TECNICO  
Cattaneo Roberto



Tecnofiber s.r.l.



## CAVO LOOSE UNITUBO CENTRALE 4-24 F.O.

CPR  
Cca

interno/esterno  
rinforzato dielettrico - LSZH-FR  
Fibre 50/125 OM3, 50/125 OM4,  
50/125 OM5, 9/125 OS2



### ● Codici

|               | 50/125 OM3 | 50/125 OM4 | 50/125 OM5 | 9/125 OS2 (G652D) |
|---------------|------------|------------|------------|-------------------|
| CAVO 4 FIBRE  | 21711      | 21741      | 21751      | 21731             |
| CAVO 6 FIBRE  | 21712      | 21742      | 21752      | 21732             |
| CAVO 8 FIBRE  | 21713      | 21743      | 21753      | 21733             |
| CAVO 12 FIBRE | 21714      | 21744      | 21754      | 21734             |
| CAVO 24 FIBRE | 21715      | 21745      | 21755      | 21735             |

### ● Descrizione

1. **Fibra ottica:** multimodo o monomodo
2. **Tubetto:** materiale termoplastico a secco
3. **Rinforzo:** elevato spessore di filato di vetro antiroditoro
4. **Guaina esterna:** rivestimento LSZH-FR

### ● Principali caratteristiche meccaniche

|   | 4-24<br>(monotubo)  |
|---|---|
| Temperature trasporto e deposito        | -40/+70°  |
| Temperature esercizio                   | -40/+70°  |
| Massima tenuta di tiro (N)              | 3000 (fibre strain ≤0,6%)   |
| Resistenza allo schiacciamento (N/10cm) | 2000  |
| Raggio minimo di curvatura (mm)         | 83  |
| Dimensioni nominali (mm)                | 8.5   |
| Peso nominale (Kg/Km)                   | 112   |
| Marchatura guaina esterna               | Anno di produzione – n. e tipo di fibra – codice prodotto - metrica |

Protezione antiroditoro: rinforzato dielettrico

### ● Standard

Cavi e fibre ottiche  
IEC/EN 60794-1  
ISO 11801-1  
EN 50173-1:2002

Sistemi di cablaggio:  
EN 50173-1:2002  
ISO 11801

Applicazioni:  
IEEE 802.3 10M a 10Gbit  
IEEE 802.5 Token ring  
ANSI X3T9-5 (FDDI)  
ATM (155, 622, ...)

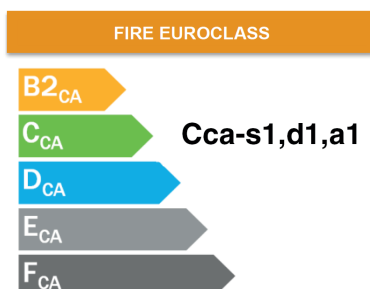
### ● Comportamento al fuoco

**Euroclass**  
EN 50339 Cca, S1a, d1, a1

LSZH-FR:  
EN 50290-2-28  
IEC-60332-1  
IEC 60754-2  
IEC 60332-3-24

### Dichiarazione di prestazione

CPRLO-D-CCA-M1



|  |   |
|--|---|
| <b>Codice di identificazione unico del prodotto-tipo</b> | LO-D-CCA-M1   |
| <b>Identificazione del prodotto</b>                      | da 21701 a 21705<br>da 21711 a 21715<br>da 21741 a 21745<br>da 21731 a 21735  |
| <b>Usi previsti</b>                                      | Cavo /conduttore isolato per applicazioni generali nei lavori di costruzione soggetti a prescrizioni di reazione al fuoco |
| <b>Fabbricante</b>                                       | TCK LAN   |

| <b>Caratteristiche essenziali</b> | <b>Sistemi di VVCP</b> |
|-----------------------------------|------------------------|
| <b>Reazione al fuoco</b>          | 1+                     |
| <b>Sostanze pericolose</b>        | 3                      |

|                             |                             |
|-----------------------------|-----------------------------|
| <b>Norma armonizzata</b>    | EN 50575 : 2014 + A1 : 2016 |
| <b>Organismi notificati</b> | 2658                        |

**Prestazioni dichiarate**

| <b>Caratteristiche essenziali</b> | <b>Performance</b> |
|-----------------------------------|--------------------|
| <b>Reazione al fuoco</b>          | Cca -s1a,d1,a1     |
| <b>Sostanze pericolose</b>        | NPD                |

Dichiarazione di prestazione disponibile sul sito: <http://www.tcklan.it>

Dichiarazione di prestazione disponibile sul sito: <http://www.tecnofiber.it>

La prestazione del prodotto sopra identificato è conforme all'insieme delle prestazioni dichiarate. La presente dichiarazione di

Firmato a nome e per conto del fabbricante da:

Gorle , addì 25/06/2018

RESPONSABILE TECNICO

Cattaneo Roberto



Tecnofiber s.r.l.

PID:

02057000

CID:

C.1993.361

## Certificato di approvazione

*Approval certificate*

**IMQ, ente di certificazione accreditato,  
autorizza la ditta**

*IMQ, accredited certification body, grants to*

**BOCCHIOTTI SPA  
VIA VITTOR PISANI 16  
20124 MILANO MI**

**all'uso del marchio**

*the licence to use the mark*

**IMQ**

Il presente certificato è  
soggetto alle condizioni  
previste nel "Regolamento  
IMQ - Certificazione  
prodotto" ed è relativo ai  
prodotti descritti  
nell'Allegato al presente  
certificato.



**per i seguenti prodotti**

*for the following products*

**Sistema di canali o condotti non  
metallici  
( Serie TMC )**

*Non-metallic cable trunking or  
ducting system  
( Series TMC )*

*This certificate is subjected to  
the conditions foreseen by "IMQ  
Rules - Product Certification"  
and is relevant to the products  
listed in the annex to this  
certificate.*

Emesso il / Issued on **1992-01-27**

Aggiornato il / Updated on **2013-04-05**

Sostituisce / Replaces **2011-11-03**

  
IMQ S.p.A.

**Allegato - Certificato di approvazione**  
**Annex - Approval certificate**

*Emesso il / Issued on* 1992-01-27

*Aggiornato il / Updated on* 2013-04-05

*Sostituisce / Replaces* 2011-11-03

## Prodotto | Product

# **Sistema di canali o condotti non metallici** **Non-metallic cable trunking or ducting system**

## Concessionario | Licence Holder

**BOCCHIOTTI SPA**  
**VIA VITTOR PISANI 16**  
**20124 MILANO MI**

## Marchio | Mark



IMQ

## Costruito a | Manufactured at

99000369 CLBOCC.C02LCBOCC+2 16011 ARENZANO

GE Italy

*Copia del presente certificato deve essere conservata presso i luoghi di produzione sopra elencati.*

*Copy of this certificate must be available at the manufacturing places listed above*

## Norme

EN 50085-1:2005

EN 50085-2-1:2006 + A1:2011

Prodotti conformi ai requisiti essenziali della Direttiva B.T. 2006/95/CE

## Standards

EN 50085-1:2005

EN 50085-2-1:2006 + A1:2011

Products meeting the essential requirements of L.V.D. 2006/95/EC

## Rapporti | Test Reports

MAIMQAGCEXMI120111312-01

## Caratteristiche tecniche | Technical characteristics

|   |   |
|---|---|
| <i>Serie / Series</i>   | <b>TMC</b>  |
| <i>Tipo di sistema / Type of system</i>   | <b>CTS</b>  |
| <i>Resistenza all'urto / Resistance to impact</i>                                       | <b>2 J</b>  |
| <i>Temp. min. immagazzinamento e trasporto / Min. storage and transport temperature</i> | <b>- 45 °C</b>  |
| <i>Temperatura minima installazione / Minimum installation temperature</i>              | <b>+ 15 °C</b>  |
| <i>Temperatura massima d'uso / Maximum application temperature</i>                      | <b>60 °C</b>  |
| <i>Resistenza alla propagazione della fiamma / Resistance to flame propagation</i>      | <b>non propagante / non-flame propagating</b>   |
| <i>Proprietà elettriche isolanti / Electrical insulating characteristics</i>            | <b>con proprietà elettriche isolanti / with electric insulating characteristic</b>                      |
| <i>Tensione nominale / Rated voltage</i>  | <b>1000 V</b>   |
| <i>Grado di protezione / Degree of protection (IP)</i>                                  | <b>IP40</b>   |
| <i>Smontabilità dei coperchi / Cover disassembling</i>                                  | <b>con coperchio / with tool</b>  |
| <i>Separazione di protezione elettrica / Electrically protective separation</i>         | <b>con separatore interno / with internal separator</b>   |
| <i>Posizioni di installazione / Installation positions</i>                              | <b>montato sporgente sulla parete o soffitto / semi flush or surface mounted on the wall or ceiling</b> |
| <i>Tipo di funzione / Type of function</i>  | <b>tipo 2 -3 / type 2 - 3</b>   |

## Articoli (con dettagli) | Articles (with details)



INSIEME PER LA QUALITÀ E LA SICUREZZA

IMQ S.p.A Società a Socio Unico  
I-20138 Milano - via Quintiliano 43  
tel. 0250731(r.a.) - fax 0250991500  
e-mail: info@imq.it - www.imq.it

Rea Milano 1595884  
Registro Imprese MI 12898410159  
C.F./P.I. 12898410159  
Capitale Sociale € 4.000.000

**E8810**  
**DAT94003006**

Marca / Trade mark **B - IBOCO**

Marchio di identificazione / Identification mark **vedere allegato 1 / see annex 1**

Dimensioni / Dimensions **vedere allegato 1 / see annex 1**

## Ulteriori informazioni | Additional Information

Il sistema di canali serie "TMC" quando è equipaggiato con prese elettriche risulta avere il grado di protezione IP20.

Il canale e i relativi accessori possono essere costruiti nei colori: grigio, bianco, marrone e ardesia (vedi allegato 1).

The cable trunking system series "TMC" when is equipped whith socket-outlets have the degree of protection IP20. The trunking and relevant accessories may be realized in the following colours: grey, white, brown and slate grey (see annex 1).

## Diritti di concessione | Annual Fees

DAT94003006

BTN.020500.DA1N

Importo serie IMQ - 0205 - Canali portacavi | IMQ series - 0205 - Cable trunkings

  
IMQ S.p.A.



Descrizione della serie / Description of the series: Series TMC

Canali / Trunking

| Articolo / Article | Descrizione       | Description  |
|--------------------|-------------------|--------------|
| TMC 15/1x17        | Corpo + coperchio | Body + cover |
| TMC 22/1x10        | Corpo + coperchio | Body + cover |
| TMC 22/2x10        | Corpo + coperchio | Body + cover |
| TMC 25/1x17        | Corpo + coperchio | Body + cover |
| TMC 30/1x10        | Corpo + coperchio | Body + cover |
| TMC 30/2x10        | Corpo + coperchio | Body + cover |
| TMC 40/2x10        | Corpo + coperchio | Body + cover |
| TMC 40/1x17        | Corpo + coperchio | Body + cover |
| TMC 40/2x17        | Corpo + coperchio | Body + cover |
| TMC 40/1x25        | Corpo + coperchio | Body + cover |
| TMC 50/1x20        | Corpo + coperchio | Body + cover |
| TMC 50/2x20        | Corpo + coperchio | Body + cover |
| TMC 50/3x20        | Corpo + coperchio | Body + cover |
| TMC 60/3x17        | Corpo + coperchio | Body + cover |

Accessori/Accessories

| Articolo / Article | Descrizione    | Description   |
|--------------------|----------------|---------------|
| ADDN               | Adattatore     | Adapter       |
| AEM 15x17          | Angolo esterno | Outside angle |
| AEM 22x10          | Angolo esterno | Outside angle |
| AEM 25x17          | Angolo esterno | Outside angle |
| AEM 30x10          | Angolo esterno | Outside angle |
| AEM 40x10          | Angolo esterno | Outside angle |
| AEM 40x17          | Angolo esterno | Outside angle |

**Descrizione della serie / Description of the series: Series TMC**

| Articolo / Article | Descrizione             | Description   |
|--------------------|-------------------------|---------------|
| AEM 50x20          | Angolo esterno          | Outside angle |
| AIM 15x17          | Angolo interno          | Inside angle  |
| AIM 22x10          | Angolo interno          | Inside angle  |
| AIM 25x17          | Angolo interno          | Inside angle  |
| AIM 30x10          | Angolo interno          | Inside angle  |
| AIM 40x10          | Angolo interno          | Inside angle  |
| AIM 40x17          | Angolo interno          | Inside angle  |
| AIM 50x20          | Angolo interno          | Inside angle  |
| APM 15x17          | Angolo piano            | Flat angle    |
| APM 22x10          | Angolo piano            | Flat angle    |
| APM 25x17          | Angolo piano            | Flat angle    |
| APM 30x10          | Angolo piano            | Flat angle    |
| APM 40x10          | Angolo piano            | Flat angle    |
| APM 40x17          | Angolo piano            | Flat angle    |
| APM 50x20          | Angolo piano            | Flat angle    |
| CDM 60             | Placca derivazione      | Joint plate   |
| CDM 83             | Placca derivazione      | Joint plate   |
| DSM                | Scatola per derivazione | Junction box  |
| GAN 40x25          | Giunto                  | Joint         |
| GM 15x17           | Giunto                  | Joint         |
| GM 22x10           | Giunto                  | Joint         |
| GM 25x17           | Giunto                  | Joint         |
| GM 30x10           | Giunto                  | Joint         |
| GM 40x10           | Giunto                  | Joint         |
| GM 40x17           | Giunto                  | Joint         |

Descrizione della serie / Description of the series: Series TMC

| Articolo / Article | Descrizione             | Description   |
|--------------------|-------------------------|---------------|
| GM 50x20           | Giunto                  | Joint         |
| IM 15x17           | Derivazione             | T joint       |
| IM 22x10           | Derivazione             | T joint       |
| IM 25x17           | Derivazione             | T joint       |
| IM 30x10           | Derivazione             | T joint       |
| IM 40x10           | Derivazione             | T joint       |
| IM 40x17           | Derivazione             | T joint       |
| IM 50x20           | Derivazione             | T joint       |
| LAN 40x25          | Terminale               | Terminal      |
| LM 15x17           | Terminale               | Terminal      |
| LM 22x10           | Terminale               | Terminal      |
| LM 25x17           | Terminale               | Terminal      |
| LM 30x10           | Terminale               | Terminal      |
| LM 40x10           | Terminale               | Terminal      |
| LM 40x17           | Terminale               | Terminal      |
| LM 50x20           | Terminale               | Terminal      |
| NEA 40x25          | Angolo esterno          | Outside angle |
| NIA 40x25          | Angolo interno          | Inside angle  |
| NPAN 40x25         | Angolo piano            | Flat angle    |
| NTAN 40x25         | Derivazione             | T joint       |
| PC 83              | Placca cieca            | Blind plate   |
| PC-L 83            | Placca cieca            | Blind plate   |
| PCN 60             | Placca cieca            | Blind plate   |
| SDM                | Scatola per derivazione | Junction box  |
| SDMN               | Scatola per derivazione | Junction box  |

**Descrizione della serie / Description of the series: Series TMC**

| Articolo / Article | Descrizione                     | Description                     |
|--------------------|---------------------------------|---------------------------------|
| SMN                | Scatola porta apparecchi 3 mod  | Socket box for apparatus 3 mod  |
| SMN 4-3            | Scatola porta apparecchi        | Socket box for apparatus        |
| SMN 3 AP           | Scatola porta apparecchi 3 mod. | Socket box for apparatus 3 mod. |
| SMN 4 AP           | Scatola porta apparecchi 4 mod. | Socket box for apparatus 4 mod. |
| SMN 60             | Scatola porta apparecchi        | Socket box for apparatus        |
| SRMN               | Scatola porta apparecchi 3 mod  | Socket box for apparatus 3 mod  |

**Tutti gli articoli possono essere forniti nei colori indicati nella tabella seguente**  
**All articles can be supplied in the colours indicated in the following table**

| Suffisso / Suffix | Colore           | Colour              |
|-------------------|------------------|---------------------|
| G                 | Grigio RAL 7030  | Grey RAL 7030       |
| W                 | Bianco RAL 9001  | White RAL 9001      |
| W0                | Bianco RAL 9010  | White RAL 9010      |
| B                 | Marrone RAL 8014 | Brown RAL 8014      |
| A                 | Ardesia RAL 7021 | Slate grey RAL 7021 |

®



THE INTERNATIONAL CERTIFICATION NETWORK

# CERTIFICATE

CISQ/IMQ has issued an IQNet recognized certificate that the organization:

## BM SPA

VIA MILANO 54/56 - 20089 ROZZANO (MI)

has implemented and maintains a

Quality Management System

for the following scope:

**Design and production of electric and electronical connecting devices.  
Commercialization of equipment and accessories to install and for the installer**

*Further clarifications regarding the applicability of ISO 9001:2015 requirements may be obtained by consulting the organization*

which fulfills the requirements of the following standard:

## ISO 9001:2015

Issued on: **2021 - 11 - 12**

Expires on: **2024 - 12 - 13**

*This attestation is directly linked to the IQNet Partner's original certificate  
and shall not be used as a stand-alone document*

Registration Number: IT - 20751



Alex Stoichitoiu  
President of IQNET



Ing. Mario Romersi  
President of CISQ

### **IQNet Partners\*:**

AFNOR Spain AFNOR Certification France APCER Portugal CCC Cyprus CISQ Italy  
CQC China CQM China CQS Czech Republic Cro Cert Croatia DQS Holding GmbH Germany EAGLE Certification Group USA  
FCAV Brazil FONDONORMA Venezuela ICONTEC Colombia Inspecta Sertifiointi Oy Finland INTECO Costa Rica  
IRAM Argentina JQA Japan KFQ Korea MIRTEC Greece MSZT Hungary Nemko AS Norway NSAI Ireland  
NYCE-SIGE México PCBC Poland Quality Austria Austria RR Russia SII Israel SIQ Slovenia  
SIRIM QAS International Malaysia SQS Switzerland SRAC Romania TEST St Petersburg Russia TSE Turkey YUQS Serbia

\* The list of IQNet partners is valid at the time of issue of this certificate. Updated information is available under [www.iqnet-certification.com](http://www.iqnet-certification.com)



www.imq.it

CERTIFICATO N. 9105.BM11  
CERTIFICATE N.

SI CERTIFICA CHE IL SISTEMA DI GESTIONE PER LA QUALITÀ DI  
WE HEREBY CERTIFY THAT THE QUALITY MANAGEMENT SYSTEM OPERATED BY

**BM SPA**

VIA MILANO 54/56 - 20089 ROZZANO (MI)

UNITA' OPERATIVE / OPERATIVE UNITS

VIA MILANO 54/56 - 20089 ROZZANO (MI)

E' CONFORME ALLA NORMA / IS IN COMPLIANCE WITH THE STANDARD

**ISO 9001:2015**

PER LE SEGUENTI ATTIVITA' / FOR THE FOLLOWING ACTIVITIES

Progettazione e produzione di dispositivi di interconnessione elettrica ed elettronica  
Commercializzazione di attrezzature ed accessori per l'installazione e per l'installatore  
*Design and production of electric and electronical connecting devices  
Commercialization of equipment and accessories to install and for the installer*

Ulteriori informazioni riguardanti l'applicabilità dei requisiti ISO 9001:2015 possono essere ottenute consultando l'organizzazione  
*Further clarifications regarding the applicability of ISO 9001:2015 requirements may be obtained by consulting the organization*

IL PRESENTE CERTIFICATO E' SOGGETTO AL RISPETTO DEL  
REGOLAMENTO PER LA CERTIFICAZIONE DEI SISTEMI DI GESTIONE  
*THE USE AND THE VALIDITY OF THE CERTIFICATE SHALL SATISFY THE  
REQUIREMENTS OF THE RULES FOR CERTIFICATION OF MANAGEMENT SYSTEMS*

| DATE | PRIMA CERTIFICAZIONE<br><i>FIRST CERTIFICATION</i> | EMMISSIONE CORRENTE<br><i>CURRENT ISSUE</i> | SCADENZA<br><i>EXPIRY</i> |
|------|--|---|---------------------------|
|      | 1991-05-16   | 2021-11-12                                  | 2024-12-13                |

IMQ S.p.A. - VIA QUINTILIANO 43 - 20138 MILANO ITALY  
Management Systems Division - F. Avio Ornago

CISQ is a member of



INTERNATIONAL CERTIFICATION NETWORK  
www.icnet-certification.com

ICNET (The Association of International Certification Bodies) is a global  
international network of the highest quality certification organizations  
System Certification is the usual  
ICNET is composed of more than 30 bodies and covers  
over 50 different areas of certification.



SGQ N° 005 A

Decreto del 20/05/2010  
Ministero delle Attività Produttive  
D.M. 10/05/2010  
Accreditamento

IAF 19, 14, 29

La certificazione è valida solo se il sistema di gestione è conforme al regolamento  
del Regolamento di Certificazione dei Sistemi di Gestione  
The certification is valid only if the management system is in compliance  
with the Management System Certification Rules



Organismo di Certificazione Federato CISQ  
www.imq.it



www.cisq.com

CISQ è la Federazione Nazionale Italiana di  
Certificazione dei Sistemi di Gestione  
CISQ member body of Federation of Management  
System Certification Bodies

PID:  
02102000  
CID:  
C.1997.8103

## Certificato di approvazione *Approval certificate*

**IMQ, ente di certificazione accreditato,** *IMQ, accredited certification body, grants to*  
**autorizza la ditta**

**BLINDO-PLAST DI MASERA M. e A. & C. SAS**  
**VIA CUNEO 6/bis**  
**12040 MONTANERA CN**

**all'uso del marchio**

*the licence to use the mark*

**IMQ**

Il presente certificato è  
soggetto alle condizioni  
previste nel "Regolamento  
IMQ - Certificazione  
prodotto" ed è relativo ai  
prodotti descritti  
nell'Allegato al presente  
certificato.



**per i seguenti prodotti**

*for the following products*

**Tubi pieghevoli**  
**( Codice di identificazione M )**

*Pliable conduits*  
*( Identification mark M )*

*This certificate is subjected to  
the conditions foreseen by "IMQ  
Rules - Product Certification"  
and is relevant to the products  
listed in the annex to this  
certificate.*

Emesso il | Issued on **1997-12-15**

Aggiornato il | Updated on **2013-11-22**

Sostituisce | Replaces **2008-10-29**

  
**IMQ S.p.A.**

Allegato - Certificato di approvazione  
Annex - Approval certificate

Emesso il / Issued on 1997-12-15  
Aggiornato il / Updated on 2013-11-22  
Sostituisce / Replaces 2008-10-29

**Prodotto | Product**  
**Tubi pieghevoli**  
**Pliable conduits**

**Concessionario | Licence Holder**

BLINDO-PLAST DI MASERA M. e A. & C. SAS  
VIA CUNEO 6/bis  
12040 MONTANERA CN

**Marchio | Mark**



IMQ

**Costruito a | Manufactured at**

97002426 CLBLIN CO2LCAJIN.C 12040 MONTANERA

CN Italy

Copia del presente certificato deve essere conservata presso i luoghi di produzione sopra elencati.

Copy of this certificate must be available at the manufacturing places listed above

**Norme**

EN 61386-1:2008  
EN 61386-22:2004 + A11:2010  
Prodotti conformi ai requisiti essenziali della Direttiva B.T. 2006/95/CE

**Standards**

EN 61386-1:2008  
EN 61386-22:2004 + A11:2010  
Products meeting the essential requirements of L.V.D. 2006/95/EC

**Rapporti | Test Reports**

MI13A0181068-01

**Caratteristiche tecniche | Technical characteristics**

Classificazione base | Base classification **3321**  
Resistenza alla propagazione della fiamma | Resistance to flame propagation **non propagante la fiamma / non flame propagating**  
Ulteriore classificazione | Further classification **22-0-010**  
Tipo di tubo | Type of conduit **corrugato / corrugated**

**Articoli (con dettagli) | Articles (with details)**

DAT97003499.2

Marca | Trade mark **BP**  
Codice di identificazione | Identification mark **M**  
Grandezza | Size **16, 20, 25, 32, 40, 50 mm**

**Ulteriori informazioni | Additional Information**

Colore: nero

Colour: black



## Diritti di concessione | Annual Fees

DAT97003499    BTN.021000.DA3C

Importo modelli IMQ - tubi pieghevoli (per diametro) - 0210 - Tubi protettivi | IMQ mod. - pliable  
conduits (per diameter) - 0210 - Conduits

6

  
**IMQ S.p.A.**

# ATTESTATION OF CONFORMITY

**Attestation Number:** SZNS1220214-04389E-SF-M1

**Date of Issue:** May 23, 2022

**Applicant:**

Company name: Ningbo Turn-Link Network Communication Equipment Co., Ltd  
Address: NO.673 LONGER RD., CIXI BINHAI ECONOMIC DEVELOPMENT ZONE,  
ZHEJIANG PROVINCE, CHINA

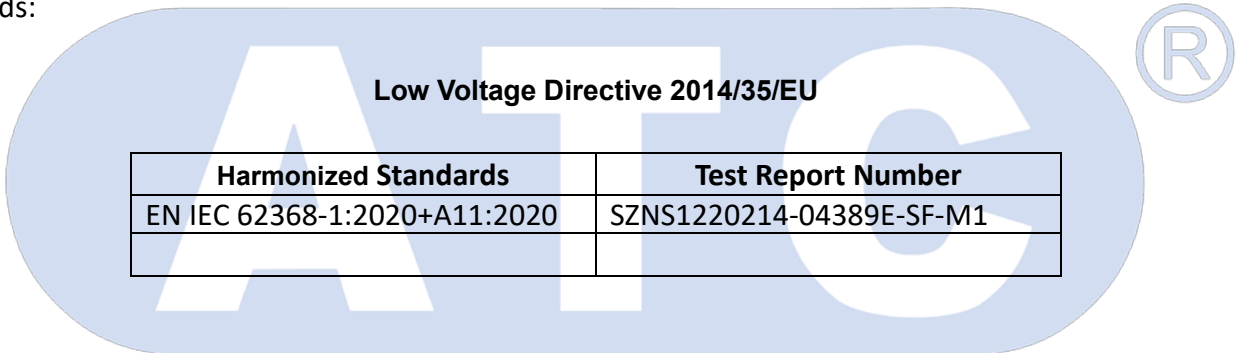
**Product:**

Name: Power Distribution Unit (PDU)  
Model(s): TUL-GER(16)N1012WXD2KPDY30PS1DB4USBBFE  
Manufacturer & Address: Same as applicant

**Trade Mark:**

Turn-Link

SHENZHEN ACCURATE TECHNOLOGY CO., LTD. hereby declares that the submitted sample(s) of the above equipment has been tested for CE regulations and in accordance with the European Directives and Standards:



**Low Voltage Directive 2014/35/EU**

| Harmonized Standards         | Test Report Number       |
|------------------------------|--------------------------|
| EN IEC 62368-1:2020+A11:2020 | SZNS1220214-04389E-SF-M1 |
|                              |                          |



*Mark is permitted only after all applicable requirements are met in accordance with the CE regulation requirements, including the manufacturer's issuance of a "Declaration of Conformity. The Declaration of Conformity is issued under the sole responsibility of the manufacturer. This attestation is specific to the standard(s) stated above and compliance with additional standards and/or CE regulations are applicable.*

Attestation by:

Lab. Manager: Tiger Li

Signature: *Tiger Li*

## ATTESTATION OF CONFORMITY

Attachment to Attestation Number: SZNS1220214-04389E-SF-M1

### Model list and differences:

**TUL-XXX(XX)NXX XX W XXXXX XXX XXXXX XXX XXX**

The 1th - 3th X represents the socket type (GER stands for German; FRA stands for French; IEC; ITA stands for Italian; SUI stands for Switzerland; AUS stands for Australian jack module; GBR stands for BRITISH; DEN stands for Denmark; FIX represents the mix of the above Eight types of sockets)

The 4th-5th X represents current 00-63A

The 6th -7th X represents the U number(Cross-Sectional area shape)10-50

The 8th - 9th X represents the number of sockets 00-48

The 10th - 14th X represents switch (KP1; KP2; KP3; KP4; XD1KP; XD2KP; XD3KP)

The 15th-17th X represents indicator light/overload (PS1; PS2; GZS; GZ)

The 18th-22th X represents surger protection (DY-20; DY30; DY-201; DY301)

The 23th-25th X represents the current voltmeter (DB1; DB2, DB3: DB4)

The 26th - 28th X represents the network interface/USB/485 module (DY-40T/80T;USB:MT)





GMCE N° 00011A

DICHIARAZIONE DI CONFORMITA' **CE / CE** DECLARATION OF CONFORMITY  
DÉCLARATION **CE** DE CONFORMITÉ / **CE** -KONFORMITÄTSEKRLÄRUNG

La presente dichiarazione di conformità è rilasciata sotto la responsabilità del fabbricante

This declaration of conformity is issued under the sole responsibility of manufacturer

*La présente déclaration de conformité est établie sous la seule responsabilité du fabricant*

*Die Alleinige verantwortung für die Ausstellung dieser konformitätserklärung trägt Hersteller*

Nome e indirizzo del fabbricante / Manufacturer's address and name

*Nom et adresse du fabricant / Name und Anschrift des Herstellers*

**GROUPS MANUFACTURING** srl, via dell'Industria 16, 37012 Bussolengo (VR)

Oggetto della dichiarazione / Objet of the declaration / *Objet de la déclaration* / *Gegenstand der Erklärung*

**Gruppi statici di continuità (UPS)** con o senza accessori ( batterie, dispositivi di protezione supplementari, trasformatori di separazione o adattamento, pannelli gestione remota e periferiche di comunicazione)

**Uninterruptible Power Supplies** with and without accessories (battery, additional protection device, adapter or isolation transformer, management remote panel, communication ports)

*Alimentation sans interruption avec ou sans accessoires (batteries, dispositifs de protection supplémentaires, transformateurs de séparation ou d'adaptation, panneaux de gestion à distance et dispositifs de communication)*

**Unterbrechungsfreie Stromversorgung** mit oder ohne Zubehör (Batterien, zusätzliche Schutzeinrichtungen, Separationen oder Adaptation-Transformatoren, Remote-Management-Panels und Kommunikations-Devices)

Marchio / Brand / *Marque / Marke*

**GM**

Modello / Model / *Modèle / Modell*

**EA2XXX**

Taglia / Size / *Taille / Größe*

**260L, 285L, 285P, 2120I**

Opzioni del prodotto / Product options / *Option du produit / Produkt Optionen*

**Tutte / Full / Toutes / Alle**

Riferimento alle pertinenti norme armonizzate per le quali dichiara la conformità

Reference to the relevant harmonised standard used in relation to which conformity is declared

*Référence aux normes harmonisées pertinentes appliquées pour lesquelles la conformité est déclarée*

*Bezugnahme auf die vorgeschriebenen harmonisierten Normen, für die Sie die Erfüllung*

Sicurezza / Safety / *Securité / Sicherheit:*

**EN62040-1:2008 + A1:2013**

EMC / EMC / *CEM / EMV:*

**EN62040-2:2006**

**EN61000-3-2:2014; EN61000-3-3:2014**

L'oggetto della dichiarazione di cui sopra è conforme alla pertinente normativa dell'Unione

The object of the above declaration complies with the relevant Union legislation

*L'objet de la déclaration ci-dessus est conforme à la législation pertinente de l'Union*

*Das Objekt der obigen Erklärung entspricht den einschlägigen Rechtsvorschriften der Union*

Direttiva bassa tensione / Low voltage Directive / *Directive basse tension / Niederspannungs-richtlinie*  
**2006 / 95 / CE**

Direttiva compatibilità elettromagnetica / Electromagnetic compatibility directive / *Compatibilité électromagnétique / Richtlinie elektromagnetische verträglichkeit*

**2004 / 108 / CE**

Bussolengo, 20/04/2016

Scamperle Simone

Il Legale Rappresentante / The Legal Representative /

*Le rapresentant legal / Der gesetzliche Vertreter*



PCMCE N° 0036A

**DICHIARAZIONE DI CONFORMITA' UE / EU DECLARATION OF CONFORMITY**  
**DÉCLARATION UE DE CONFORMITÉ / EU-KONFORMITÄTSEKTLÄRUNG**

La presente dichiarazione di conformità è rilasciata sotto la responsabilità del fabbricante

This declaration of conformity is issued under the sole responsibility of manufacturer

La présente déclaration de conformité est établie sous la seule responsabilité du fabricant

Die alleinige Verantwortung für die Ausstellung dieser Konformitätserklärung trägt der Hersteller

Nome e indirizzo del fabbricante / Manufacturer's address and name

Nom et adresse du fabricant / Name und Anschrift des Herstellers

**POWERCOM EUROPE srl, via Tione 10, 37010 Pastrengo (VR)**

Oggetto della dichiarazione / Objet of the declaration / *Objet de la déclaration* / *Gegenstand der Erklärung*

**Gruppi statici di continuità (UPS) con o senza accessori ( batterie, dispositivi di protezione supplementari, trasformatori di separazione o adattamento, pannelli gestione remota e periferiche di comunicazione)**

**Uninterruptible Power Supplies with and without accessories (battery, additional protection device, adapter or isolation transformer, management remote panel, communication ports)**

*Alimentation sans interruption avec ou sans accessoires (batteries, dispositifs de protection supplémentaires, transformateurs de séparation ou d'adaptation, panneaux de gestion à distance et dispositifs de communication)*

*Unterbrechungsfreie Stromversorgung mit oder ohne Zubehör (Batterien, zusätzliche Schutzeinrichtungen, Separationen oder Adaptation-Transformatoren, Remote-Management-Panels und Kommunikations-Devices)*

Marchio / Brand / *Marque / Marke*

**PCM**

Modello / Model / *Modèle / Modell*

**RPTXXXX**

Taglia / Power / *Taille / Leistung*

**600, 800, 1000 (xxxx) AP**

**1025, 1500, 2000 (xxxx) LCD**

Opzioni del prodotto / Product options / *Option du produit* / Produkt Optionen

**Tutte / Full / Toutes / Alle**

Riferimento alle pertinenti norme armonizzate per le quali dichiara la conformità

Reference to the relevant harmonised standard used in relation to which conformity is declared

*Référence aux normes harmonisées pertinentes appliquées pour lesquelles la conformité est déclarée*

*Bezugnahme auf die vorgeschriebenen harmonisierten Normen, für die Sie die Erfüllung*

Sicurezza / Safety / *Securité / Sicherheit:*

**EN62040-1:2008 / A1:2013**

EMC / EMC / *CEM / EMV:*

**EN62040-2:2006 / AC:2006 (C1)**

**EN61000-4-2/ -3/ -4/ -5/ -6/ -8**

**EN61000-3-2; -2**

L'oggetto della dichiarazione di cui sopra è conforme alla pertinente normativa dell'Unione

The object of the above declaration complies with the relevant Union legislation

*L'objet de la déclaration ci-dessus est conforme à la législation pertinente de l'Union*

*Das Objekt der obigen Erklärung entspricht den einschlägigen Rechtsvorschriften der Union*

Direttiva bassa tensione / Low voltage Directive / *Directive basse tension / Niederspannungs-richtlinie*  
**2014 / 35 / EU**

Direttiva compatibilità elettromagnetica / Electromagnetic compatibility directive / *Compatibilité électromagnétique / Richtlinie elektromagnetische verträglichkeit*

**2014 / 30 / EU**

Pastrengo, 10/01/2022

Giuseppe Righetti

Il Legale Rappresentante / The Legal Representative /

*Le rapresentant legal / Der gesetzliche Vertreter*



PCMCE N° 0036B

**DICHIARAZIONE DI CONFORMITÀ CE / CE DECLARATION OF CONFORMITY**  
**DÉCLARATION CE DE CONFORMITÉ / CE -KONFORMITÄTSEKRLÄRUNG**

La presente dichiarazione di conformità è rilasciata sotto la responsabilità del fabbricante

This declaration of conformity is issued under the sole responsibility of manufacturer

La présente déclaration de conformité est établie sous la seule responsabilité du fabricant

Die Alleinige verantwortung für die Ausstellung dieser konformitätserklärung trägt Hersteller

Nome e indirizzo del fabbricante / Manufacturer's address and name

Nom et adresse du fabricant / Name und Anschrift des Herstellers

**POWERCOM EUROPE srl, via Tione 10, 37010 Pastrengo (VR)**

Oggetto della dichiarazione / Objet of the declaration / *Objet de la déclaration* / *Gegenstand der Erklärung*

**Gruppi statici di continuità (UPS) con o senza accessori ( batterie, dispositivi di protezione supplementari, trasformatori di separazione o adattamento, pannelli gestione remota e periferiche di comunicazione)**

**Uninterruptible Power Supplies with and without accessories (battery, additional protection device, adapter or isolation transformer, management remote panel, communication ports)**

*Alimentation sans interruption avec ou sans accessoires (batteries, dispositifs de protection supplémentaires, transformateurs de séparation ou d'adaptation, panneaux de gestion à distance et dispositifs de communication)*

*Unterbrechungsfreie Stromversorgung mit oder ohne Zubehör (Batterien, zusätzliche Schutzeinrichtungen, Separationen oder Adaptation-Transformatoren, Remote-Management-Panels und Kommunikations-Devices)*

Marchio / Brand / *Marque / Marke*

**PCM**

Modello / Model / *Modèle / Modell*

**RPTXXX**

Taglia / Size / *Taille / Größe*

**600, 800, 1000 (xxxx)AP**

**1025, 1500, 2000 (xxxx) LCD**

Opzioni del prodotto / Product options / *Option du produit* / Produkt Optionen

**Tutte / Full / Toutes / Alle**

Riferimento alle pertinenti norme armonizzate per le quali dichiara la conformità

Reference to the relevant harmonised standard used in relation to which conformity is declared

*Référence aux normes harmonisées pertinentes appliquées pour lesquelles la conformité est déclarée*

*Bezugnahme auf die vorgeschriebenen harmonisierten Normen, für die Sie die Erfüllung*

Sicurezza / Safety / *Securité / Sicherheit:*

**EN62040-1:2008 / A1:2013**

EMC / EMC / *CEM / EMV:*

**EN62040-2:2006 / AC:2006 (C1)**

**EN61000-4-2/ -3/ -4/ -5/ -6/ -8**

**EN61000-3-2/ -2**

L'oggetto della dichiarazione di cui sopra è conforme alla pertinente normativa dell'Unione

The object of the above declaration complies with the relevant Union legislation

*L'objet de la déclaration ci-dessus est conforme à la législation pertinente de l'Union*

*Das Objekt der obigen Erklärung entspricht den einschlägigen Rechtsvorschriften der Union*

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**2014 / 35 / UE**

Direttiva compatibilità elettromagnetica / Electromagnetic compatibility directive / *Compatibilité*

*électromagnétique / Richtlinie elektromagnetische verträglichkeit*

**2014/ 30 / UE**

Pastrengo, 10/01/2022

Giuseppe Righetti

Il Legale Rappresentante / The Legal Representative /

*Le rapresentant legal / Der gesetzliche Vertreter*

## Access Point U6 Pro



## Mechanical

|                    |   |
|--------------------|---|
| Dimensions         | Ø197 x 35 mm (Ø7.76 x 1.38")                                  |
| Weight             | Without mount: 460 g (1.01 lb)<br>With mount: 600 g (1.32 lb) |
| Enclosure material | Plastic   |
| Mount material     | SGCC steel  |
| Weatherproofing    | IP54  |

## Hardware

|                         |  |         |                    |       |                       |
|-------------------------|--|---------|--------------------|-------|-----------------------|
| Management interface    | Ethernet<br>Bluetooth  |         |                    |       |                       |
| Networking interface    | (1) GbE RJ45 port  |         |                    |       |                       |
| Button                  | Factory reset  |         |                    |       |                       |
| LED                     | White/blue   |         |                    |       |                       |
| Power method            | PoE+   |         |                    |       |                       |
| Power supply            | UniFi PoE switch<br>48V, 0.5A PoE adapter (optional)   |         |                    |       |                       |
| Supported voltage range | 44–57V DC  |         |                    |       |                       |
| Max. power consumption  | 13W  |         |                    |       |                       |
| Max. TX power           | <table border="1"> <tr> <td>2.4 GHz</td> <td>22 dBm</td> </tr> <tr> <td>5 GHz</td> <td>26 dBm</td> </tr> </table>                            | 2.4 GHz | 22 dBm             | 5 GHz | 26 dBm                |
| 2.4 GHz                 | 22 dBm   |         |                    |       |                       |
| 5 GHz                   | 26 dBm   |         |                    |       |                       |
| MIMO                    | <table border="1"> <tr> <td>2.4 GHz</td> <td>2 x 2 (UL MU-MIMO)</td> </tr> <tr> <td>5 GHz</td> <td>4 x 4 (DL/UL MU-MIMO)</td> </tr> </table> | 2.4 GHz | 2 x 2 (UL MU-MIMO) | 5 GHz | 4 x 4 (DL/UL MU-MIMO) |
| 2.4 GHz                 | 2 x 2 (UL MU-MIMO)   |         |                    |       |                       |
| 5 GHz                   | 4 x 4 (DL/UL MU-MIMO)  |         |                    |       |                       |
| Throughput rate         | <table border="1"> <tr> <td>2.4 GHz</td> <td>573.5 Mbps</td> </tr> <tr> <td>5 GHz</td> <td>4.8 Gbps</td> </tr> </table>                      | 2.4 GHz | 573.5 Mbps         | 5 GHz | 4.8 Gbps              |
| 2.4 GHz                 | 573.5 Mbps   |         |                    |       |                       |
| 5 GHz                   | 4.8 Gbps   |         |                    |       |                       |
| Antenna gain            | <table border="1"> <tr> <td>2.4 GHz</td> <td>4 dBi</td> </tr> <tr> <td>5 GHz</td> <td>6 dBi</td> </tr> </table>                              | 2.4 GHz | 4 dBi              | 5 GHz | 6 dBi                 |
| 2.4 GHz                 | 4 dBi  |         |                    |       |                       |
| 5 GHz                   | 6 dBi  |         |                    |       |                       |
| Mounting                | Wall/ceiling (included)  |         |                    |       |                       |
| Operating temperature   | -30 to 60° C (-22 to 140° F)   |         |                    |       |                       |
| Operating humidity      | 5 to 95% noncondensing   |         |                    |       |                       |
| Certifications          | CE, FCC, IC, MIC   |         |                    |       |                       |

## Software

|                         |   |
|-------------------------|---|
| WiFi standards          | 802.11a/b/g<br>WiFi 4/WiFi 5/WiFi 6     |
| Wireless security       | WPA-PSK, WPA-Enterprise (WPA/WPA2/WPA3) |
| BSSID                   | 8 per radio                             |
| VLAN                    | 802.1Q                                  |
| Advanced QoS            | Per-user rate limiting                  |
| Guest traffic isolation | Supported                               |



---

|                    |   |
|--------------------|---|
| Concurrent clients | 300+  |
| Zero wait DFS      | Yes*<br><small>*Supported with upcoming firmware versions</small> |

---

## Supported Data Rates

---

|                   |   |
|-------------------|---|
| 802.11a           | 6, 9, 12, 18, 24, 36, 48, 54 Mbps                               |
| 802.11b           | 1, 2, 5.5, 11 Mbps  |
| 802.11g           | 6, 9, 12, 18, 24, 36, 48, 54 Mbps                               |
| 802.11n (WiFi 4)  | 6.5 Mbps to 600 Mbps (MCS0 - MCS31, HT 20/40)                   |
| 802.11ac (WiFi 5) | 6.5 Mbps to 3.4 Gbps (MCS0 - MCS9 NSS1/2/3/4, VHT 20/40/80/160) |
| 802.11ax (WiFi 6) | 7.3 Mbps to 4.8 Gbps (MCS0 - MCS11 NSS1/2/3/4, HE 20/40/80/160) |

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## 802.3at PoE Gigabit Switches with SFP

Auto-Sensing IEEE 802.3af/at PoE

SFP Ports for Gigabit Fiber Connectivity

Quiet Cooling for Any Workspace

Models: USW-16-PoE, USW-24-PoE, USW-48-PoE



## Overview

Expand and power your network with the UniFi® PoE Switch, part of the Ubiquiti® UniFi Enterprise System. It is available in the following models:

- **USW-16-PoE** 16 RJ45 ports with 2 SFP ports
- **USW-24-PoE** 24 RJ45 ports with 2 SFP ports
- **USW-48-PoE** 48 RJ45 ports with 4 SFP ports

The 16-port and 24-port models measure only 7.9" in depth, making them ideal for convenient installation: rackmounted in a SOHO rack cabinet or placed on a desktop.

## Fiber Connectivity

SFP ports enable network uplinks of up to 1 Gbps.

## Fanless, Silent Cooling

The UniFi PoE Switch features fanless, silent thermal cooling\*, so it can be deployed in areas where fan noise would be distracting.

\* Fanless switches must not be stacked.

## Switching Performance

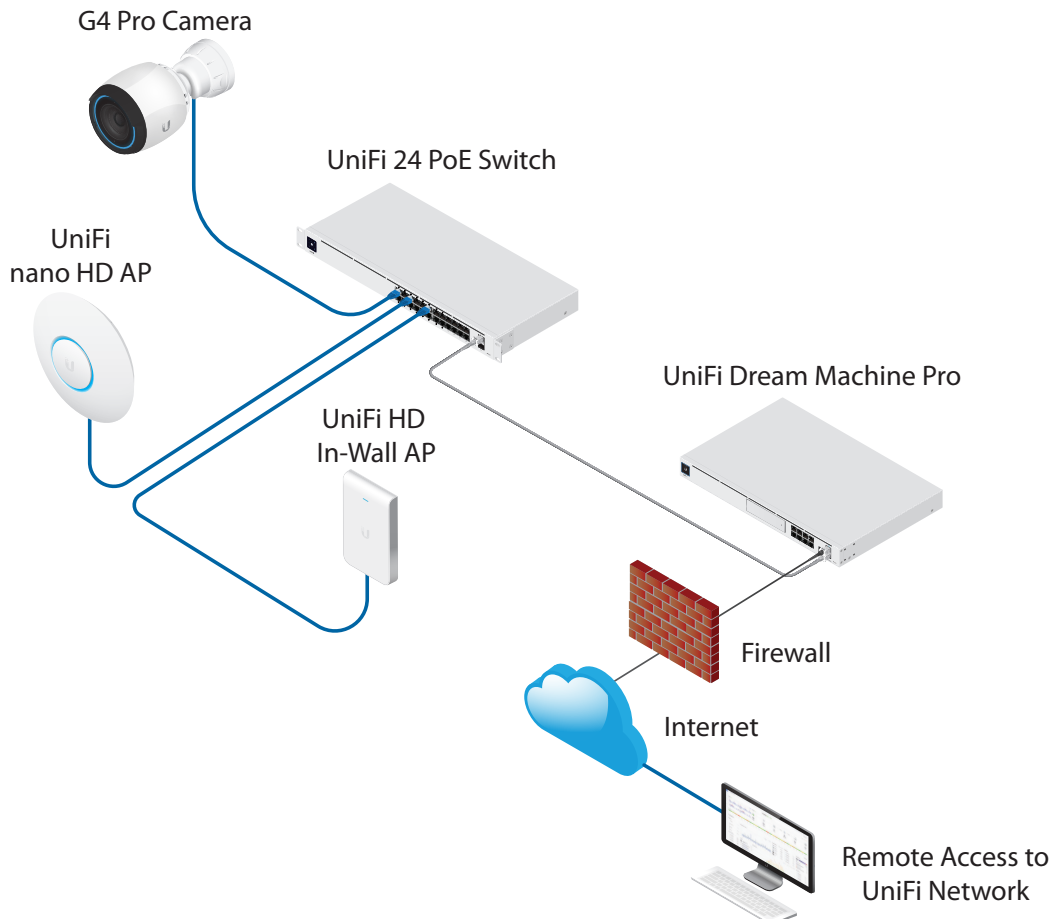
The UniFi PoE Switch offers the forwarding capacity to simultaneously process traffic on all ports at line rate without any packet loss.

## 802.3af/at PoE

PoE support simplifies your network infrastructure and cabling. PoE ports offer 802.3af/at to power your PoE devices, such as UniFi APs and cameras.

|                           | USW-16-PoE | USW-24-PoE | USW-48-PoE |
|---------------------------|------------|------------|------------|
| Number of PoE Ports       | 8          | 16         | 32         |
| Total Available PoE       | 42W        | 95W        | 195W       |
| Max. PoE Wattage per Port | 32W        | 32W        | 32W        |

## Deployment Example



The UniFi 24 PoE Switch powers the UniFi nano HD AP, UniFi HD In-Wall AP, and G4 Pro Camera.

### UniFi 16-Port PoE Switch

- (8) Gigabit RJ45 ports with 802.3af/at
- (8) Gigabit RJ45 ports
- (2) 1G SFP ports
- 1U Rackmountable (hardware included)



USW-16-PoE

### UniFi 24-Port PoE Switch

- (16) Gigabit RJ45 ports with 802.3af/at
- (8) Gigabit RJ45 ports
- (2) 1G SFP ports
- 1U Rackmountable (hardware included)



USW-24-PoE

### UniFi 48-Port PoE Switch

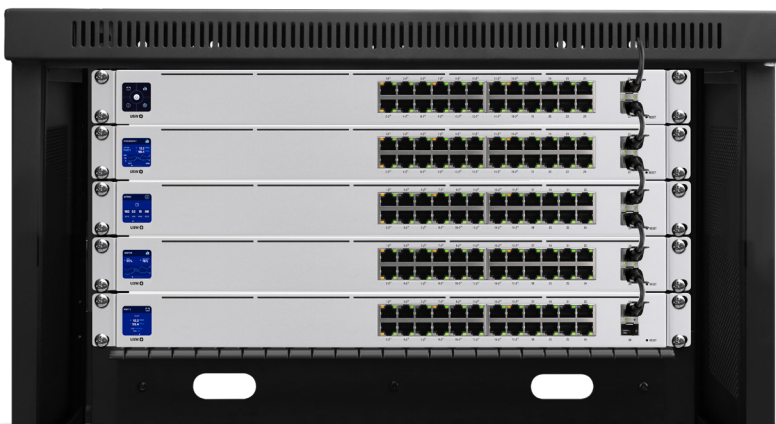
- (32) Gigabit RJ45 ports with 802.3af/at
- (16) Gigabit RJ45 ports
- (4) 1G SFP ports
- 1U Rackmountable (hardware included)



USW-48-PoE

### Innovative Display

The 1.3" touchscreen displays status information for easy monitoring and quick troubleshooting.





## Scalable UniFi Network Controller

### Management Capabilities

The UniFi Network Controller can provision UniFi devices, map out networks, and quickly manage system traffic. Important network details are logically organized for a simplified, yet powerful, interface.

### Network Overview

From a single pane of glass, view network topology and configuration, real-time statistics, and debugging metrics. Monitor your network's vitals and make on-the-fly adjustments as needed.

### Deep Packet Inspection

Ubiquiti's proprietary Deep Packet Inspection (DPI) engine includes the latest application identification signatures to track which applications (and IP addresses) are using the most bandwidth.

### Detailed Analytics

The UniFi Network Controller provides configurable reporting and analytics to manage large user populations and expedite troubleshooting. Advanced search and sorting capabilities make network management more efficient.

### Multi-Site Management

A single controller running in the cloud can manage multiple sites: multiple, distributed deployments and multi-tenancy for managed service providers. Each site is logically separated and has its own configuration, maps, statistics, guest portal, and administrator accounts.

### Switch Configuration

You can access any managed UniFi Switch through the UniFi Controller to configure a variety of features:

- Operation mode (switching, mirroring, or aggregate) per port
- Network/VLAN configuration
- Jumbo frame and flow control services
- Network settings
- Storm control setting per port
- Spanning tree configuration
- 802.1X control and RADIUS VLAN
- Debug terminal option for command-line interface

### Switch Port Status

You can also view status information for each port:

- Connection speed and duplex mode
- TX/RX data rates
- Network/VLAN setting

### Software Features

The UniFi Network Controller software offers the following features:

- Centralized configuration management (including configuration cloning)
- Auto-MDIX automatically adjusts as needed for straight through or crossover cable
- 802.1X (RADIUS) authentication and dynamic VLAN





| USW-16-PoE                                      |  |
|---|--|
| Dimensions                                      | 442.4 x 200 x 43.7 mm<br>(17.42 x 7.87 x 1.72")          |
| Weight<br>With Brackets                         | 2.80 kg (6.17 lb)<br>2.89 kg (6.37 lb)                   |
| Interfaces<br>Networking                        | (16) 10/100/1000 RJ45 Ports<br>(2) 1G SFP Ethernet Ports |
| Management                                      | Ethernet In-Band   |
| Total Non-Blocking<br>Throughput                | 18 Gbps  |
| Switching Capacity                              | 36 Gbps  |
| Forwarding Rate                                 | 26.78 Mpps   |
| Power Method                                    | 100-240VAC, 50/60 Hz, Universal Input                    |
| Power Supply                                    | AC/DC, Internal, 60W                                     |
| Voltage Range                                   | 100 to 240VAC  |
| Max Power Consumption<br>(Excluding PoE Output) | 18W  |
| LEDs<br>RJ45 Data Ports<br>SFP Data Ports       | PoE; Speed/Link/Activity<br>Link/Activity                |
| ESD/EMP Protection                              | Air: ± 16 kV, Contact: ± 12 kV                           |
| Shock and Vibration                             | ETSI300-019-1.4 Standard                                 |
| Operating Temperature                           | -5 to 40° C (23 to 104° F)                               |
| Operating Humidity                              | 10 - 90% Noncondensing                                   |
| Certifications                                  | CE, FCC, IC  |

| PoE  |   |
|--|---|
| Total Available PoE                            | 42W   |
| PoE Interfaces<br>Ports 1-8                    | POE+ IEEE 802.3af/at<br>(Pins 1, 2+; 3, 6-) |
| Max. PoE Wattage per<br>Port by PSE<br>802.3at | 32W   |
| Voltage Range<br>802.3af Mode<br>802.3at Mode  | 44-57V<br>50-57V                            |

| USW-24-PoE                                      |  |
|---|--|
| Dimensions                                      | 442.4 x 200 x 43.7 mm<br>(17.42 x 7.87 x 1.72")          |
| Weight<br>With Brackets                         | 3.00 kg (6.61 lb)<br>3.09 kg (6.81 lb)                   |
| Interfaces<br>Networking                        | (24) 10/100/1000 RJ45 Ports<br>(2) 1G SFP Ethernet Ports |
| Management                                      | Ethernet In-Band   |
| Total Non-Blocking<br>Throughput                | 26 Gbps  |
| Switching Capacity                              | 52 Gbps  |
| Forwarding Rate                                 | 38.69 Mpps   |
| Power Method                                    | 100-240VAC, 50/60 Hz, Universal Input                    |
| Power Supply                                    | AC/DC, Internal, 120W                                    |
| Voltage Range                                   | 100 to 240VAC  |
| Max Power Consumption<br>(Excluding PoE Output) | 25W  |
| LEDs<br>RJ45 Data Ports<br>SFP Data Ports       | PoE; Speed/Link/Activity<br>Link/Activity                |
| ESD/EMP Protection                              | Air: ± 16 kV, Contact: ± 12 kV                           |
| Shock and Vibration                             | ETSI300-019-1.4 Standard                                 |
| Operating Temperature                           | -5 to 40° C (23 to 104° F)                               |
| Operating Humidity                              | 10 - 90% Noncondensing                                   |
| Certifications                                  | CE, FCC, IC  |

| PoE  |   |
|--|---|
| Total Available PoE                            | 95W   |
| PoE Interfaces<br>Ports 1-16                   | PoE+ IEEE 802.3af/at<br>(Pins 1, 2+; 3, 6-) |
| Max. PoE Wattage per<br>Port by PSE<br>802.3at | 32W   |
| Voltage Range<br>802.3af Mode<br>802.3at Mode  | 44-57V<br>50-57V                            |





| USW-48-PoE                                      |  |
|---|--|
| Dimensions                                      | 442.4 x 285 x 43.7 mm<br>(17.42 x 11.22 x 1.72")         |
| Weight<br>With Brackets                         | 4.52 kg (9.97 lb)<br>4.61 kg (10.16 lb)                  |
| Interfaces<br>Networking                        | (48) 10/100/1000 RJ45 Ports<br>(4) 1G SFP Ethernet Ports |
| Management                                      | Ethernet In-Band   |
| Total Non-Blocking<br>Throughput                | 52 Gbps  |
| Switching Capacity                              | 104 Gbps   |
| Forwarding Rate                                 | 77.38 Mpps   |
| Power Method                                    | 100-240VAC, 50/60 Hz, Universal Input                    |
| Power Supply                                    | AC/DC, Internal, 240W                                    |
| Voltage Range                                   | 100 to 240VAC  |
| Max Power Consumption<br>(Excluding PoE Output) | 45W  |
| LEDs<br>RJ45 Data Ports<br>SFP Data Ports       | PoE; Speed/Link/Activity<br>Link/Activity                |
| ESD/EMP Protection                              | Air: ± 16 kV, Contact: ± 12 kV                           |
| Shock and Vibration                             | ETSI300-019-1.4 Standard                                 |
| Operating Temperature                           | -5 to 40° C (23 to 104° F)                               |
| Operating Humidity                              | 10 - 90% Noncondensing                                   |
| Certifications                                  | CE, FCC, IC  |

| PoE  |   |
|--|---|
| Total Available PoE                            | 195W  |
| PoE Interfaces<br>Ports 1-32                   | PoE+ IEEE 802.3af/at<br>(Pins 1, 2+; 3, 6-) |
| Max. PoE Wattage per<br>Port by PSE<br>802.3at | 32W   |
| Voltage Range<br>802.3af Mode<br>802.3at Mode  | 44-57V<br>50-57V                            |

Specifications are subject to change. Ubiquiti products are sold with a limited warranty described at: [ui.com/support/warranty](http://ui.com/support/warranty)  
 The limited warranty requires the use of arbitration to resolve disputes on an individual basis, and, where applicable, specify arbitration instead of jury trials or class actions.  
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