

P | Cabling

Data sheet

MC GC1000 plus23 Cat.7 S/FTP 2x4P LSHF 1640 ft, class E_{ca}

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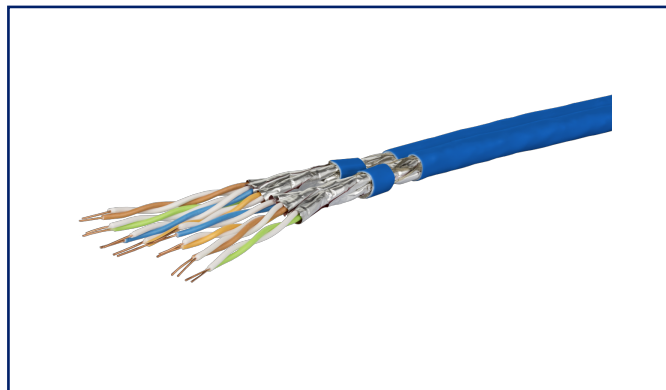
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EAN 4250184175278

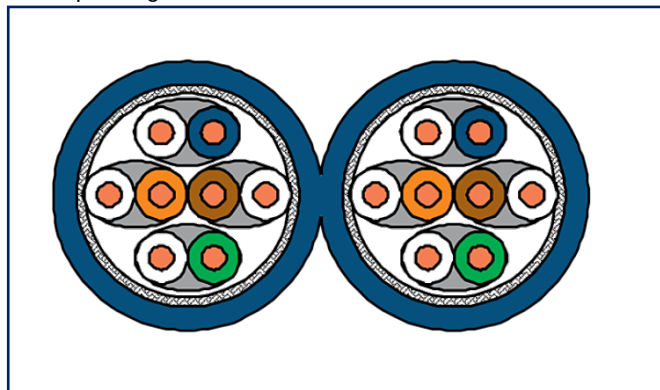
2023/04/26

Version: AZ

Illustrations



Principle diagram



See enlarged drawings at the end of document

Product specification

- 10 GBit installation cable, duplex
- installation cable Cat.7 AWG 23 S/FTP with wires shielded in pairs
- 2 x 4 pairs (PiMF)
- pair shield: plastic foil with aluminum coating
- overall shield: tinned copper braid
- outer diameter 7.2/15.0 mm
- color of the cable jacket: blue
- coupling attenuation 80 dB
- applicable standards: EN 50173-1; ISO/IEC 11801; EN 50288-4-1 and IEC 61156-5
- cable jacket: LSHF (LSOH)
- flame-retardant to IEC 60332-1; IEC 60754-2 and IEC 61034
- fire behaviour: Class E_{ca} (classification acc. to EN 13501-6)
- delivery unit: on drum - 500 m/1640 ft



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Technical Data

General Data

Design	installation cable
Shielding	shielded
Transmission technology	Copper
Cable Type	S/FTP
Number of twisting elements	4
Twisting element	Pair
Color coding fiber/ wire(s)	white, orange, white, green, white, brown, white, blue
Color	blue
Cable length (m)	500 m
Cable length (ft)	1640.42 ft
Weight	109.2 kg/km

Transmission characteristics

Category (ISO)	7
PoE	IEEE 802.3af
PoE plus	IEEE 802.3at
UPoE	yes
4PPoE	IEEE 802.3bt
Transmission rate up to 10 GBit	IEEE 802.3an
Transmission values (nominal)	see table

Connections/interfaces

Termination data, solid wire (min. - max.)	
Conductor cross section, solid wire	AWG 23/1
Conductor diameter, solid wire (bare copper)	0.56 mm
Conductor diameter, solid wire (bare copper)	0.022 in.
Core diameter (min. - max.)	
Core diameter (conductor with insulation)	1.35 mm
Core diameter (conductor with insulation)	0.053 in.
Cable sheath diameter (min. - max.)	
Cable sheath diameter	7.2 / 15.0
Cable sheath diameter	0.276
Copper index	52 kg/km



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Electrical characteristics

Loop resistance	max. 165 Ohm/km
Transfer impedance 1 MHz	max. 12 mOhm/m
Transfer impedance 10 MHz	max. 10 mOhm/m
Transfer impedance 30 MHz	max. 30 mOhm/m
Characteristic impedance 1-100 MHz	100+/-5
Characteristic impedance 100-250 MHz	100+/-10
Characteristic impedance 250-600 MHz	100+/-15
Resistance unbalance	max. 2 %
Coupling attenuation	80 dB
Capacitance at 800 Hz	43
Capacitance unbalance pair to ground	max. 1500 pF/km
Nominal velocity of propagation	ca. 79 %
Signal propagation delay	max. 427 ns/100 m
Delay skew	max. 12 ns/100 m
Dielectric strength conductor-conductor (primary)	1000 V DC
Dielectric strength conductor-conductor (secondary)	1000 V DC
Dielectric strength conductor-shield	1000 V DC
Segregation classification	D

Mechanical data

Tensile force	220 N
Fire load	0.345 kWh/m
Fire load	1190 MJ/km
Bending radius without load	min. 40 mm
Bending radius without load	min. 1.57 in.
Bending radius with load	min. 80 mm
Bending radius with load	min. 3.15 in.

Materials and material properties

Material - Conductor	Cu (copper)
Material - Conductor Insulation	Foam-Skin Polyethylen
Material - Cable jacket	LSHF (LSOH)
Material - Pair shield	plastic film
Material - Pair shield finish	Al (Aluminium)



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Materials and material properties

Material - Main shield	Cu (copper) braid
Material - Main shield finish	Sn (tin)
Flame retardancy	yes
Halogen free	yes
RoHS	compliant

Environmental conditions

Temperature (min. - max.)	
Temperature - Storage °C	-20 °C - 60 °C
Temperature - Storage °F	-4 °F - 140 °F
Temperature - Operating °C	-20 °C - 60 °C
Temperature - Operating °F	-4 °F - 140 °F
Temperature - Installation °C	0 °C - 50 °C
Temperature - Installation °F	32 °F - 122 °F

Standards/Regulations

Generic cabling systems	
General requirements	ISO/IEC 11801 Ed.2.2:2011-06 DIN EN 50173-1:2011-09
Multi-element metallic cables used in analogue and digital communication and control	DIN EN 50288-4-1
Common test methods for cables under fire conditions	
Fire behaviour - class (EN 50399)	 fire behaviour: Class E_{ca} (classification acc. to EN 13501-6)
Test for vertical flame propagation for a single insulated wire or cable	IEC 60332-1
Measurement of smoke density of cables burning	IEC 61034
Determination of acidity (by measuring the pH value) and conductivity	IEC 60754-2

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Classifications

ETIM 5.0	EC000830
ETIM 6.0	EC000830
ETIM 7.0	EC003249
ETIM 8.0	EC003249
ETIM 9.0	EC003249

Packing details

Type of packaging	1 meter / drum
Packaging dimension	850 mm x 700 mm x 850 mm
Packaging dimension	33.465 in. x 27.559 in. x 33.465 in.

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Accessories

P/N	Designation
140302-01-E	Jokari dismantle tool



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