

P | Cabling

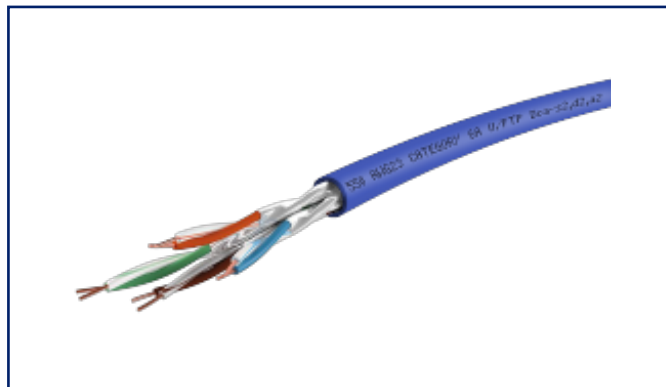
Data sheet

**MC 550 AWG 23 Cat.6A U/FTP 4P LSHF-FR 1000 m,
class D_{ca} s2 d2 a2**

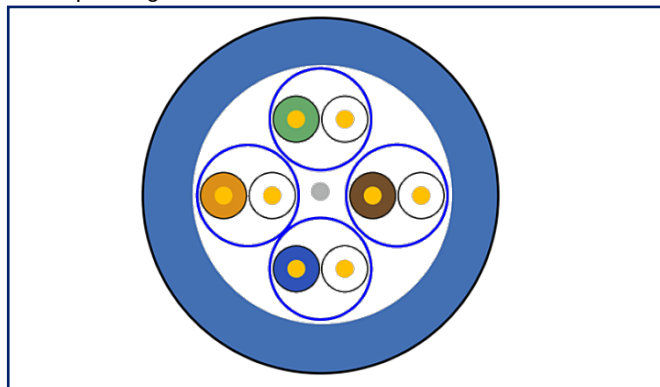
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P/N
130842A6AUFD
EAN 4251394668451
2023/10/20
Version: F

Illustrations



Principle diagram



See enlarged drawings at the end of document

Product specification

- 10 GBase-T installation cable, simplex
- unshielded installation cable Cat.6A Class E_A, AWG 23
- 4 pairs
- outer diameter: 7.1 mm
- color of the cable jacket: blue
- coupling attenuation greater than or equal to 70 dB
- applicable standards: EN 50173, ISO 11801
- flame-retardant to: IEC 60332-1, EN 60332-1
- fire behaviour: Class D_{ca} s2,d2,a2



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Technical Data

General Data

Design	installation cable
Transmission technology	Copper
Cable Type	U/FTP
Number of twisting elements	4
Twisting element	Pair
Color	blue
Cable length (m)	1000 m
Cable length (ft)	3280.84 ft
Weight	45 kg/km

Transmission characteristics

Category (ISO)	6 _A
PoE	IEEE 802.3af
PoE plus	IEEE 802.3at
UPoE	yes

Connections/interfaces

Termination data, solid wire (min. - max.)	
Conductor cross section, solid wire	AWG 23
Cable sheath diameter (min. - max.)	
Cable sheath diameter	7.1 mm

Electrical characteristics

Loop resistance	max. 146.4 Ohm/km
Insulation resistance	min. 5000 MOhm
Transfer impedance 1 MHz	max. 30 mOhm/m
Transfer impedance 10 MHz	max. 30 mOhm/m
Transfer impedance 30 MHz	max. 50 mOhm/m
Transfer impedance 100 MHz	max. 100 mOhm/m
Resistance unbalance	max. 2 %
Coupling attenuation	min. 70 dB
Capacitance unbalance pair to ground	max. 1600 pF/km
Nominal velocity of propagation	ca. 78 %



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Electrical characteristics

Dielectric strength conductor-conductor (secondary)	1000 V DC
Dielectric strength conductor-shield	1000 V DC

Mechanical data

Tensile force	98 N
Fire load	0.153 kWh/m
Fire load	550 MJ/km
Maximum operating bending radius	30 mm
Maximum installation load	60 mm

Materials and material properties

Material - Conductor	Cu (copper)
Material - Conductor Insulation	Polyethylene
Material - Cable jacket	LSHF (LSOH)
Material - Pair shield	Pet/aluminium foil and tinned drain wire AWG26
Flame retardancy	yes, according to IEC 60332-1 and EN 60332-1
Halogen free	yes, according to IEC 60754-1/2, EN 50267-1 and EN 50267-2-2/3
RoHS	compliant

Environmental conditions

Temperature (min. - max.)	
Temperature - Storage °C	0 °C - 50 °C
Temperature - Storage °F	32 °F - 122 °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



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Technical Data

Standards/Regulations

Generic cabling systems

General requirements ISO/IEC 11801 | DIN EN 50173-1

Common test methods for cables under fire conditions

Fire behaviour - class (EN 50399) Class D_{ca} s2 d2 a2 according to EN 13501-6

Test for vertical flame propagation for a single insulated wire or cable yes, according to EN 60332-1 and IEC 60332-1

Measurement of smoke density of cables burning yes, according to EN 61034-2 and IEC 61034-2

Determination of acidity (by measuring the pH value) and conductivity IEC 60754-1 / EN 50267-1

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 1000 meter / drum



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