

Data sheet

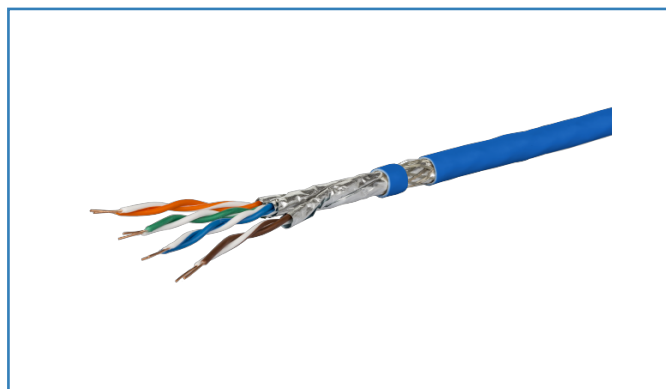
**MC GC1300 pro22 Cat.7_A S/FTP 4P LSHF-FR,
class D_{ca} s2 d2 a1**

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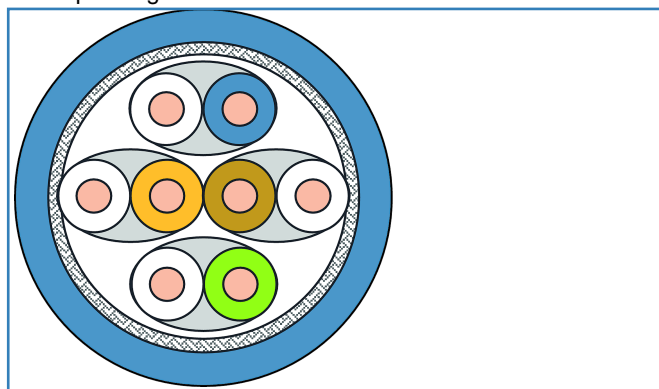
P/N
1308427B3414M
EAN 4251394604022

2018-20-02

Illustrations



Principle diagram



See enlarged drawings at the end of document



Product specification

- 25 GBit / 10 GBit installation cable, simplex
- installation cable Cat.7_A AWG 22 S/FTP with wires shielded in pairs
- 4 pairs (PiMF)
- pair shield: plastic foil with aluminum coating
- overall shield: tinned copper braid
- outer diameter 7.5 mm
- color of the cable jacket: blue
- coupling attenuation greater than or equal to 85 dB
- applicable standards: EN 50173-1; ISO/IEC 11801; EN 50288-9-1 and IEC 61156-5
- cable jacket: LSHF-FR (LSOH-FR)
- flame-retardant to IEC 60332-1; IEC 60332-3-24; IEC 60754-2 and IEC 61034
- fire behaviour: Class D_{ca} s2 d2 a1 acc. to EN 50399 (classification acc. to EN 13501-6)

Shipping Units:

sold by meter	on drum
1640 ft (500 m)	on drum
3280 ft (1000 m)	on drum

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Technical Data

General Data

Fields of application	Structured building cabling, Primary Tertiary
Design	Installation cables
Shielding	shielded
Transmission technology	Copper
Cable Type	S/FTP
Number of twisting elements	4
Twisting element	Pair
Color coding fiber/ wire(s)	white/orange, orange, white/green, green, white/brown, brown, white/blue, blue
Color	blue
Weight	66.00 kg/km

Transmission characteristics

Category (ISO)	7 _A
PoE	IEEE 802.3af
PoE plus	IEEE 802.3at
Transmission rate up to 25 GBit (Fast Ethernet)	IEEE 802.3bq

Connections/interfaces

Termination data, solid wire (min. - max.)	
Conductor cross section, solid wire	AWG 22/1
Conductor diameter, solid wire (bare copper)	0.62 mm
Conductor diameter, solid wire (bare copper)	0.024 in.
Core diameter (min. - max.)	
Core diameter (conductor with insulation)	1.5 mm
Core diameter (conductor with insulation)	0.059 in.
Cable sheath diameter (min. - max.)	
Cable sheath diameter	7.5 mm
Cable sheath diameter	0.276 in.
Copper index	35 kg/km



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Electrical characteristics

Insulation resistance	min. 5000 MOhm
Loop resistance	max. 128 Ohm/km
Transfer impedance 1 MHz	5 mOhm/m
Transfer impedance 10 MHz	5 mOhm/m
Transfer impedance 30 MHz	9 mOhm/m
Characteristic impedance 1-100 MHz	100+/-5 Ohm
Resistance unbalance	max. 2 %
Coupling attenuation	min. 85 dB
Capacitance at 800 Hz	Nom. 43 nF/km
Capacitance unbalance pair to ground	max. 1500 pF/km
Nominal velocity of propagation	ca.79 %
Signal propagation delay	450 ns/100 m
Delay skew	15 ns/100 m
Dielectric strength conductor-conductor (primarily)	1000 V DC
Dielectric strength conductor-shield	1000 V DC
Segregation classification	D

Mechanical characteristics

Tensile force	140 N
Fire load	660 MJ/km
Bending radius without load	min. 30 mm
Bending radius with load	min. 60 mm

Materials and material properties

Material - Conductor	Cu (copper)
Material - Conductor Insulation	Foam-Skin Polyethylen
Material - Cable jacket	LSHF-FR (LSOH-FR)
Material - Pair shield	plastic film
Material - Pair shield finish	Al (Aluminium)
Material - Main shield	Cu (copper) braid
Material - Main shield finish	Sn (tin)
Flame retardancy	yes



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Environmental conditions

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

Approvals

RoHS	compliant
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The product meets the following standards

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 50288-9-1
Common test methods for cables under fire conditions	
Fire behaviour - class	fire behaviour: Class D _{ca} s2 d2 a1 acc. to EN 50399 (classification acc. to EN 13501-6)
Test for vertical flame propagation for a single insulated wire or cable	IEC 60332-1
Test for vertical flame spread of vertically-mounted bunched wires or cables	IEC 60332-3-24
Measurement of smoke density of cables burning	IEC 61034
Determination of acidity (by measuring the pH value) and conductivity	IEC 60754-2

Packing details

Type of packaging	meter
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Accessories

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



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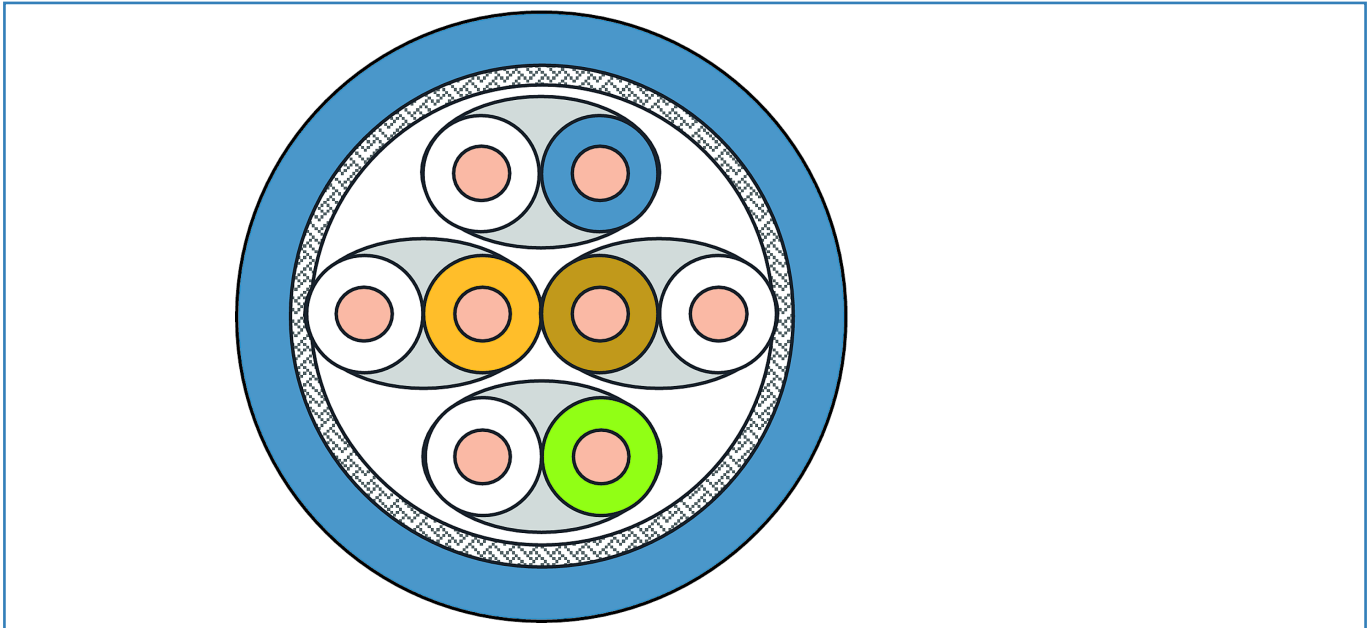
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Transmission values (nominal) as per Cat. 7_A (at 20°C)

FREQ MHz	Attenuation (dB/100m)	NEXT (dB)	PS-NEXT (dB)	ACR (dB/100 m)	PS-ACR (dB/100 m)	ELFEXT (dB/100 m)	PS-ELFEXT (dB/100 m)	Return loss (dB)
1.0	1.7	100	97	98	95	100	97	22
4.0	3.3	100	97	97	94	97	94	25
10.0	5.2	100	97	95	92	95	92	27
16.0	6.6	100	92	94	91	90	87	27
20.0	7.4	100	90	93	90	90	87	27
31.25	9.25	100	90	91	88	90	87	26
62.50	13.1	100	90	87	84	85	82	24
100.0	16.6	100	87	83	80	80	77	22
155.0	20.1	95	87	75	72	78	75	20
200.0	23.6	95	87	71	69	75	72	20
250.0	26.5	90	87	63	60	69	66	19
300.0	29.1	89	85	60	57	65	62	19
600.0	41.6	85	82	43	40	45	42	19
1000.0	54.0	83	80	29	26	40	37	19
1200.0	59.0	83	80	24	21	35	32	17
1400.0	63.7	81	78	17	14	30	27	15
1500.0	66.0	80	77	14	11	28	25	15

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