

Data sheet

MC GC400 SL23 Cat.6 U/UTP LSHF 1640 ft, class E_{ca}

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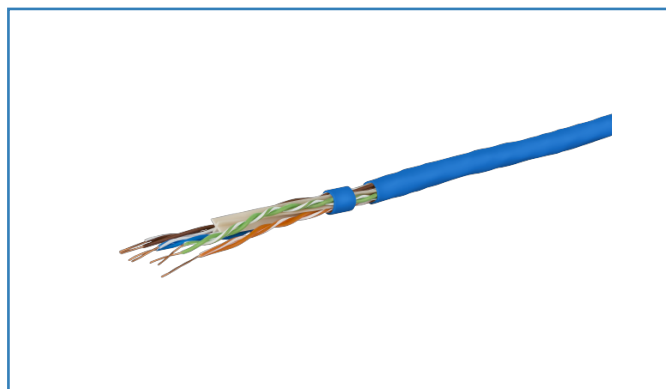
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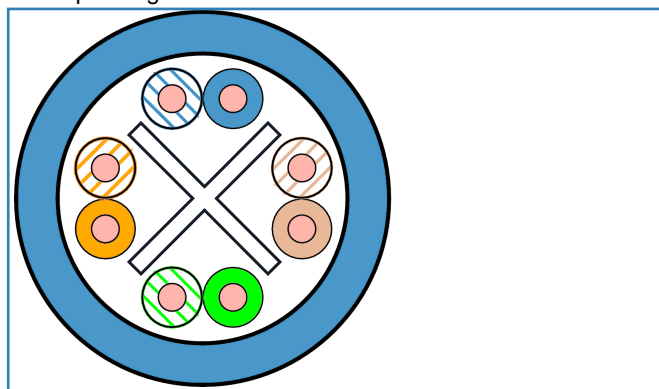
EAN 4250184175223

2017-29-11

Illustrations



Principle diagram



See enlarged drawings at the end of document



Product specification

- 1 GBit installation cable, simplex
- unshielded installation cable Cat.6 class E, AWG 23 U/UTP
- 4 pairs with separator (spline)
- outer diameter 5.3 mm
- color of the cable jacket: blue
- coupling attenuation greater than or equal to 40 dB
- applicable standards: EN 50173-1:2011-09; ISO/IEC 11801 Ed.2.2:2011-06; EN 50288-6-1, IEC 61156-5, EIA/TIA 568B-C.2
- 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)

Shipping Units:

1000 ft (305 m)	in a box
1640 ft (500 m)	on drum
3280 ft (1000 m)	on drum



Technical Data

General Data

Design	Installation cables
Shielding	unshielded
Transmission technology	Copper
Cable Type	U/UTP
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
Cable length (m)	500.00 m
Cable length (ft)	1640.42 ft
Weight	36 kg/km

Transmission characteristics

Category (ISO)	6
Class (ISO/IEC)	E
Transmission rate up to 1 GBit (Fast Ethernet)	IEEE 802.3ab
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)	0.54 - 0.54 mm
Core diameter (min. - max.)	
Core diameter (conductor with insulation)	0.95 mm
Core diameter (conductor with insulation)	0.037 in.
Cable sheath diameter (min. - max.)	
Cable sheath diameter	5.3 mm
Cable sheath diameter	0.209 in.
Copper index	18.1 kg/km

Technical Data

Electrical characteristics

Loop resistance	max. 176 Ohm/km
Characteristic impedance 1-100 MHz	100+/-5 Ohm
Resistance unbalance	max. 2 %
Coupling attenuation	min. 40 dB
Capacitance at 800 Hz	Nom. 48 nF/km
Capacitance unbalance pair to ground	max. 1500 pF/km
Nominal velocity of propagation	67 %
Signal propagation delay	max. 535 ns/100 m
Delay skew	max. 20 ns/100 m
Dielectric strength conductor-conductor (primarily)	1000 V DC
Dielectric strength conductor-conductor (secondary)	1000 V DC
Dielectric strength conductor-shield	1000 V DC

Mechanical characteristics

Tensile force	100 N
Fire load	0.087 kWh/m
Fire load	316 MJ/km
Bending radius without load	min. 21.2 mm
Bending radius without load	min. 0.83 in.
Bending radius with load	min. 42.4 mm
Bending radius with load	min. 1.67 in.

Materials and material properties

Material - Conductor	Cu (copper)
Material - Conductor Insulation	Foam-Skin Polyethylen
Material - Cable jacket	LSHF (LSOH)

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

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Approvals

RoHS compliant

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
TIA/EIA 568-C.2

Multi-element metallic cables used in analogue and digital communication and control DIN EN 50288-6-1

Common test methods for cables under fire conditions

Fire behaviour - class  Klasse E_{ca} (Klassifizierung nach 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

Classifications

ETIM 5.0 EC000830

ETIM 6.0 EC000830

Packing details

Type of packaging meter / drum

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Accessories

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



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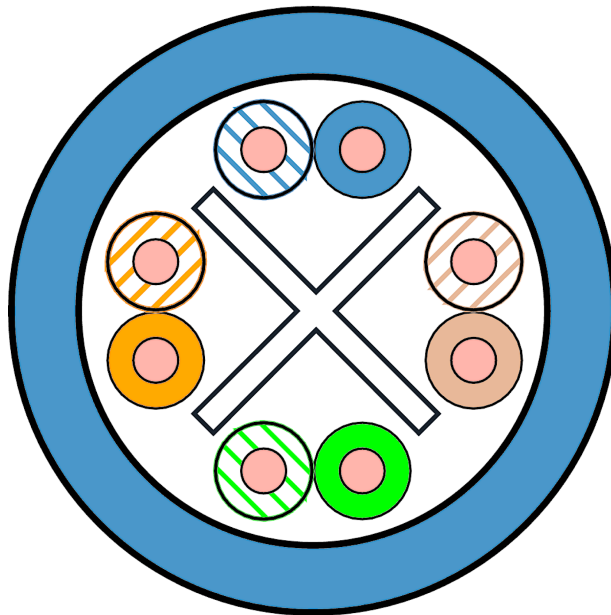
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Principle diagram



Transmission values (nominal)

as per Cat. 6 (at 20°C)

FREQ MHz	Attenuation (dB/100 m)	NEXT (dB/100 m)	PS-NEXT (dB)	ACR (dB/100 m)	PS-ACR (dB/100 m)	ELFEXT (dB/100 m)	PS-ELFEXT (dB/100 m)	Return loss (min. dB)
1.0	1.9	78	75	76.1	73.1	82	80	20
4.0	3.8	69	66	65.2	62.2	70	68	23
10.0	6.0	63	60	57.0	54.0	62	60	25
16.0	7.6	60	57	52.3	49.3	58	56	25
20.0	8.5	59	56	50.0	47.0	56	54	25
31.2	10.7	56	53	45.0	42.0	52	50	23.6
62.5	15.1	51	48	36.0	33.0	46	44	21.5
100.0	19.1	48	45	28.9	25.9	42	40	20.1
125.0	21.3	47	44	25.2	22.2	40	38	19.5
155.5	23.8	45	42	21.3	18.3	38	36	18.8
175.0	25.3	44	41	19.1	16.1	37	35	18.4
200.0	27.0	44	41	16.5	13.5	36	34	18.0
250.0	32.0	42	39	10.0	7.0	34	32	17.3
300.0	36.1	41	38	4.8	1.8	32	30	-
400.0	41.7	39	36	-2.7	-5.7	30	28	-

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