

product type designation

product description

IE TP Cord RJ45/RJ45, 4x2

Patch cable, preferred length, preassembled with two RJ45 connectors (10/100/1000/10000MB)

Industrial Ethernet TP cord RJ45/RJ45, Cat6a, S/FTP cable 4x2, pre-assembled with 2 RJ45 connectors, length 45 m.



product brand name

Technical Product Detail Page

suitability for use

cable designation

wire length

SIMATIC NET

<https://i.siemens.com/1P6XV1870-3QN45>

Easy connection of terminal devices to the IE FC cabling system

S/FTP, LI 02YSCH 4x2x0,15 PIMF GN FRNC

45 m

electrical data

number of electrical connections

attenuation factor per length

- at 10 MHz / maximum
- at 100 MHz / maximum
- at 300 MHz / maximum
- at 600 MHz / maximum

2

0.086 dB/m
0.28 dB/m
0.501 dB/m
0.735 dB/m

impedance

- at 1 MHz ... 100 MHz
- at 10 MHz ... 600 MHz

100 Ω
100 Ω

relative symmetrical tolerance

- of the characteristic impedance at 1 MHz ... 100 MHz
- of the characteristic impedance at 10 MHz ... 600 MHz

15 %
10 %

coupling loss / at 30 MHz ... 100 MHz / minimum

70 dB

transfer impedance per length / at 10 MHz

10 mΩ/m

loop resistance per length / maximum

290 mΩ/m

operating voltage

- RMS value

80 V

NVP value in percent

80 %

mechanical data

number of electrical cores

design of the shield

core diameter

- of AWG26 insulated conductor

outer diameter

- of inner conductor
- of the wire insulation
- of cable sheath

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S/FTP, overlapped aluminum-clad foil, sheathed in a protective braided shield of tinned copper wires

0.5 mm

0.5 mm

1 mm

6.2 mm

symmetrical tolerance of the outer diameter / of cable sheath

0.3 mm

material

- of the wire insulation

polyethylene (PE)

• of cable sheath	FRNC
color	
• of the insulation of data wires	white/blue, white/orange, white/green, white/brown
• of cable sheath	green
bending radius	
• with single bend / minimum permissible	31 mm
• with multiple bends / minimum permissible	43.5 mm
weight per length	50 kg/km
plug	
connector type	RJ45
type of plug interlock	latched
design of plug-in connection	RJ45-180
ambient conditions	
ambient temperature	
• during operation	-25 ... +80 °C
• during storage	-25 ... +80 °C
• during transport	-25 ... +80 °C
• during installation	-25 ... +80 °C
• note	In fixed installation -40 °C to 80 °C
fire behavior	flame resistant acc. to IEC 60332-1-2, EN 60332-3-24, smoke density acc. to IEC 61034
class of burning behaviour / according to EN 13501-6	Eca
chemical resistance	
• to mineral oil	oil resistant according to IEC 60811-2-1 (4 h / 70°C)
• to grease	Conditional resistance
radiological resistance / to UV radiation	not resistant
protection class IP	IP20
product features, product functions, product components / general	
product feature	
• halogen-free	Yes; halogen-free according to EN 60754-2
• PoE capability	Yes
• PoE+ capability	Yes
• PoE++ capability	Yes
• silicon-free	Yes
test voltage	
• at AC / core-to-core	500 V
• at AC / core shield	1500 V
standards, specifications, approvals	
UL/ETL listing / 300 V Rating	No
UL/ETL style / 600 V Rating	Yes; E502506 AWM STYLE 21279, Wiring Harness
certificate of suitability	ISO/IEC 11801-1, IEC 61035
• EAC approval	Yes
• UL approval	Yes
• RoHS conformity	Yes
standard for structured cabling	Cat6A
Marine classification association	
• American Bureau of Shipping Europe Ltd. (ABS)	No
• French marine classification society (BV)	No
• Det Norske Veritas (DNV)	No
• Germanische Lloyd (GL)	No
• Lloyds Register of Shipping (LRS)	No
• Nippon Kaiji Kyokai (NK)	No
• Polski Rejestr Statkow (PRS)	No
further information / internet links	
internet link	
• to website: Selection guide for cables and connectors	https://support.industry.siemens.com/cs/ww/en/view/109766358
• to web page: selection aid TIA Selection Tool	https://www.siemens.com/tstcloud
• to web page: SiePortal	https://sieportal.siemens.com/
• to website: Image database	https://www.automation.siemens.com/bilddb

- to website: CAX-Download-Manager
- to website: Industry Online Support

<https://www.siemens.com/cax>
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security information

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General Product Approval

Functional Safety

Test Certificates

Industrial Communication



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