

Data sheet

6XV1878-2G

Product type designation	IE TP Ground Cable 4x2 (AWG 24, Type C)
Product description	Shielded TP installation cable (8-core), sold by the meter, unassembled IE TP ground cable 4x2 Extension ground cable, CAT6A, 8-core, shielded, cable for Connection to IE FC RJ45 plug 4x2, AWG24, Sold by the meter Delivery length max. 1000 m Minimum order 20 m
Suitability for use	Standard cable with rigid cores for fast, permanent installation outdoors and in the ground
Cable designation	2YH(ST)CY2Y 4X2X0.5/1.0 BK

Electrical data

Damping ratio per length	
• at 10 MHz / maximum	0.058 dB/m
• at 100 MHz / maximum	0.191 dB/m
• at 250 MHz / maximum	0.311 dB/m
• at 300 MHz / maximum	0.343 dB/m
• at 500 MHz / maximum	0.453 dB/m
Impedance	
• at 1 MHz ... 100 MHz	100 Ω
Near-end crosstalk per length	
• at 1 MHz ... 100 MHz	0.453 dB/m
• at 1 MHz ... 250 MHz	0.393 dB/m
• at 1 MHz ... 300 MHz	0.381 dB/m
• at 1 MHz ... 500 MHz	0.348 dB/m
Transfer impedance per length / at 10 MHz	20 mΩ/m
Loop resistance per length / maximum	190 mΩ/m
Insulation resistance coefficient	5000 GΩ·m
Operating voltage	
• RMS value	80 V
NVP value in percent	66 %

Mechanical data

Number of electrical cores	8
Design of the shield	Overlapped aluminum-clad foil, sheathed in a braided screen of tin-plated copper wires
Type of electrical connection / FastConnect	Yes
Core diameter	
• of the AWG24 core	0.51 mm
Outer diameter	
• of inner conductor	0.51 mm

• of the wire insulation • of the inner sheath of the cable • of cable sheath • of cable sheath / Note	1 mm 6.1 mm 10.5 mm IE FC standard cable GP 4x2 (diameter 8 mm) with additional PE outer cover (diameter 10.5 mm)
Symmetrical tolerance of the outer diameter / of cable sheath	0.5 mm
Material • of the wire insulation • of the inner sheath of the cable • of cable sheath	polyethylene (PE) FRNC PVC
Color • of the insulation of data wires • of cable sheath	white-blue/blue, white-orange/orange, white-green/green, white-brown/brown green/black
Bending radius • with single bend / minimum permissible • with multiple bends / minimum permissible	42 mm 84 mm
Tensile load / maximum	100 N
Weight per length	122 kg/km

Ambient conditions

Ambient temperature • during operation • during storage • during transport • during installation • Note	-40 ... +80 °C -40 ... +80 °C -40 ... +80 °C -40 ... +80 °C In fixed installation -40 °C to 85 °C
Class of burning behaviour / according to EN 13501-6	Fca
Chemical resistance • to water	Resistant
Radiological resistance / to UV radiation	resistant

Product features, product functions, product components / general

Product feature • halogen-free • silicon-free	No Yes
Wire length / for Industrial Ethernet • with 100BaseTX • with 1000BaseT • for 10GBase T	90 m 90 m 70 m

Standards, specifications, approvals

UL/ETL listing / 300 V Rating	No
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UL/ETL style / 600 V Rating	No
Certificate of suitability	
• CE marking	Yes
• RoHS conformity	Yes
Product conformity	
• ANSI/TIA-EIA 568-B.2 Cat.5e	Yes
• IEC 61784-5-2-CP 2/2 (Ethernet/IP)	Yes
Standard for structured cabling	Cat6A
Marine classification association	
• American Bureau of Shipping Europe Ltd. (ABS)	No
• Bureau Veritas (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

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|---|---|
| • to website: Selector SIMATIC NET SELECTION TOOL | http://www.siemens.com/snst |
| • to website: Industrial communication | http://www.siemens.com/simatic-net |
| • to website: Industry Mall | https://mall.industry.siemens.com |
| • to website: Information and Download Center | http://www.siemens.com/industry/infocenter |
| • to website: Image database | http://automation.siemens.com/bilddb |
| • to website: CAx Download Manager | http://www.siemens.com/cax |
| • to website: Industry Online Support | https://support.industry.siemens.com |

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