

product type designation

product description



IE FC TP Standard Cable GP 4x2 (AWG 24, Type C)

Shielded TP installation cable (8-core), sold by the meter, unassembled

Industrial Ethernet FastConnect TP standard cable GP 4x 2, TP installation CAT6A cable for connection to IE FC RJ45 plug 4x 2, AWG24, sold by the meter, delivery unit max. 2000 m minimum order quantity 20 m.

product brand name	SIMATIC NET
Technical Product Detail Page	https://l.siemens.com/1P6XV1878-2A
suitability for use	Standard cable with rigid cores for fast, permanent installation
cable designation	SF/UTP, 2YH (ST) CY 4x2x0,5/1,0 GN
wire length	sold by the meter
electrical data	
attenuation factor 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
coupling loss / at 30 MHz ... 100 MHz / minimum	80 dB
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
• maximum	80 V
NVP value in percent	67 %
mechanical data	
number of electrical cores	8
design of the shield	SF/UTP, overlapped aluminum-clad foil, sheathed in a protective braided shield of tinned copper wires
type of electrical connection / FastConnect	Yes
core diameter	
• of AWG24 insulated conductor	0.51 mm
outer diameter	
• of inner conductor	0.51 mm
• of the wire insulation	1 mm

<ul style="list-style-type: none"> • of the inner sheath of the cable 	6.1 mm
<ul style="list-style-type: none"> • of cable sheath 	8 mm
symmetrical tolerance of the outer diameter / of cable sheath	0.2 mm
material	
<ul style="list-style-type: none"> • of the wire insulation 	polyethylene (PE)
<ul style="list-style-type: none"> • of the inner sheath of the cable 	FRNC
<ul style="list-style-type: none"> • of cable sheath 	PVC
color	
<ul style="list-style-type: none"> • of the insulation of data wires 	white-blue/blue, white-orange/orange, white-green/green, white-brown/brown
<ul style="list-style-type: none"> • of cable sheath 	green
bending radius	
<ul style="list-style-type: none"> • with single bend / minimum permissible 	24 mm
<ul style="list-style-type: none"> • with multiple bends / minimum permissible 	40 mm
tensile load / maximum	100 N
weight per length	74.5 kg/km
ambient conditions	
ambient temperature	
<ul style="list-style-type: none"> • during operation 	-40 ... +85 °C
<ul style="list-style-type: none"> • during storage 	-40 ... +80 °C
<ul style="list-style-type: none"> • during transport 	-40 ... +80 °C
<ul style="list-style-type: none"> • during installation 	-40 ... +80 °C
ambient condition / for operation	Temperature range for permanent installation -40 °C to +85 °C
fire behavior	flame resistant according to IEC 60332-3-24 (Category C)
class of burning behaviour / according to EN 13501-6	Eca
chemical resistance	
<ul style="list-style-type: none"> • to mineral oil 	oil resistant according to IEC 60811-2-1 (4 h / 70°C)
<ul style="list-style-type: none"> • to grease 	Conditional resistance
<ul style="list-style-type: none"> • to water 	conditional resistance
radiological resistance / to UV radiation	resistant
product features, product functions, product components / general	
product feature	
<ul style="list-style-type: none"> • halogen-free 	No
<ul style="list-style-type: none"> • PoE capability 	Yes
<ul style="list-style-type: none"> • PoE+ capability 	Yes
<ul style="list-style-type: none"> • PoE++ capability 	Yes
<ul style="list-style-type: none"> • silicon-free 	Yes
wire length / for Industrial Ethernet	
<ul style="list-style-type: none"> • with 100BaseTX 	100 m
<ul style="list-style-type: none"> • with 1000BaseT 	100 m
<ul style="list-style-type: none"> • for 10GBase T 	90 m
test voltage	
<ul style="list-style-type: none"> • at AC / core-to-core 	2000 V
<ul style="list-style-type: none"> • at AC / core shield 	2000 V
standards, specifications, approvals	
UL/ETL listing / 300 V Rating	Yes; c(UL)us, CMG, AWM-Style 21500, cRU AWM I A/B 60°C 300V FT2
UL/ETL style / 600 V Rating	No
certificate of suitability	
<ul style="list-style-type: none"> • EAC approval 	Yes
<ul style="list-style-type: none"> • CE marking 	Yes
<ul style="list-style-type: none"> • RoHS conformity 	Yes
product conformity	
<ul style="list-style-type: none"> • ANSI/TIA-EIA 568-B.2 Cat.5e 	Yes
<ul style="list-style-type: none"> • IEC 61784-5-2-CP 2/2 (Ethernet/IP) 	Yes
standard for structured cabling	Cat6A
<ul style="list-style-type: none"> • resistance to air pollution / conformity according to ANSI/ISA-71.04 	Yes; G3
Marine classification association	
<ul style="list-style-type: none"> • American Bureau of Shipping Europe Ltd. (ABS) 	No

- French marine classification society (BV)
- Det Norske Veritas (DNV)
- Germanische Lloyd (GL)
- Lloyds Register of Shipping (LRS)
- Nippon Kaiji Kyokai (NK)
- Polski Rejestr Statkow (PRS)

No
No
No
No
No
No

further information / internet links

internet link

- to website: Selection guide for cables and connectors
- to web page: selection aid TIA Selection Tool
- to web page: SiePortal
- to website: Image database
- to website: CAX-Download-Manager
- to website: Industry Online Support

<https://support.industry.siemens.com/cs/ww/en/view/109766358>
<https://www.siemens.com/tstcloud>
<https://sieportal.siemens.com/>
<https://www.automation.siemens.com/bilddb>
<https://www.siemens.com/cax>
<https://support.industry.siemens.com>

security information

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Approvals / Certificates

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[Manufacturer Declaration](#)



[Declaration of Conformity](#)



[Fire safety / Physical security](#)

General Product Approval

[China RoHS](#)



[Declaration of Conformity](#)

Test Certificates

[Special Test Certificate](#)

other

[Miscellaneous](#)

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last modified:

3/10/2026