

Data sheet

6XV1871-5BN20

product type designation

product description

IE Connecting Cable IE FC RJ45-180 / IE FC RJ45-180

Flexible plug-in cable (4-core), preferred length, preassembled with two IE FC RJ45 connectors 2x2

IE connecting cable IE FC RJ45 Plug-180/IE FC RJ45 Plug-180; IE FC Trailing Cable GP Pre-assembled with 2x IE FC RJ45 plug 180; length 20 m.



suitability for use

For connecting Industrial Ethernet stations with an RJ45 interface (10/100 Mbps)

cable designation

SF/UTP

wire length

20 m

electrical data

number of electrical connections

2

attenuation factor per length

0.06 dB/m

- at 10 MHz / maximum
- at 100 MHz / maximum

0.2 dB/m

impedance

100 Ω

- at 1 MHz ... 100 MHz

relative symmetrical tolerance

5 %

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

near-end crosstalk per length

0.5 dB/m

- at 1 MHz ... 100 MHz

transfer impedance per length / at 10 MHz

20 mΩ/m

loop resistance per length / maximum

120 mΩ/m

operating voltage

80 V

- RMS value

NVP value in percent

66 %

mechanical data

number of electrical cores

4

design of the shield

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

core diameter

0.75 mm

- of AWG22 insulated conductor

outer diameter

0.75 mm

- of inner conductor

1.5 mm

- of the wire insulation

3.9 mm

- of the inner sheath of the cable

6.5 mm

- of cable sheath

symmetrical tolerance of the outer diameter / of cable sheath

0.2 mm

material

polyethylene (PE)

- of the wire insulation

PVC

- of the inner sheath of the cable

PVC

color

white/yellow/blue/orange

• of cable sheath	green
bending radius <ul style="list-style-type: none"> • with single bend / minimum permissible • with multiple bends / minimum permissible • with continuous bending 	32.5 mm 58.5 mm 100 mm
number of bending cycles	3000000; Drag chain suitable for 3 million bending cycles at a bending radius of 100 mm, a speed of 4 m/s and an acceleration of 4 m/s ²
tensile load / maximum	150 N
weight per length	68 kg/km
plug	
design of plug-in connection	RJ45-180
ambient conditions	
ambient temperature <ul style="list-style-type: none"> • during operation • during storage • during transport • during installation • note 	-25 ... +75 °C -25 ... +75 °C -25 ... +75 °C -10 ... +60 °C Electrical properties measured at 20 °C, tests according to DIN VDE 0472
fire behavior	flame resistant according to UL 1685 (CSA FT 4)
chemical resistance <ul style="list-style-type: none"> • to mineral oil • to grease • to water 	conditional resistance Conditional resistance 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 • PoE capability • PoE+ capability • silicon-free 	No Yes Yes Yes
standards, specifications, approvals	
UL/ETL listing / 300 V Rating	Yes; c(ETL)us, CMG FT4 / (ETL)us PLTC / Sun Res / OIL RES
UL/ETL style / 600 V Rating	Yes; cRUs AWM 21694 AWM I A/B 60°C 600V FT2
certificate of suitability <ul style="list-style-type: none"> • EAC approval • CE marking • RoHS conformity 	Yes Yes Yes
standard for structured cabling	Cat5e, Class D
Marine classification association <ul style="list-style-type: none"> • American Bureau of Shipping Europe Ltd. (ABS) • 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 No
reference code <ul style="list-style-type: none"> • according to IEC 81346-2 • according to IEC 81346-2:2019 	WG WGB
further information / internet links	
internet link <ul style="list-style-type: none"> • 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	
security information	Siemens provides products and solutions with industrial cybersecurity functions that support the secure operation of plants, systems, machines and networks. In order to protect plants, systems, machines and networks against cyber threats, it is necessary to implement – and continuously maintain – a holistic,

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Approvals / Certificates

General Product Approval



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Test Certificates

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