## **SIEMENS**

Data sheet 6XV1871-5BN15

## 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 15.0 m.



| suitability for use   | For connecting Industrial Ethernet stations with an RJ45 interface (10/100 Mbps)       |
|---|--|
| wire length   | 15 m   |
| electrical data   |  |
| number of electrical connections  | 2  |
| attenuation factor per length   |  |
| • at 10 MHz / maximum   | 0.06 dB/m  |
| • at 100 MHz / maximum  | 0.2 dB/m   |
| impedance   |  |
| • at 1 MHz 100 MHz  | 100 Ω  |
| relative symmetrical tolerance  |  |
| • of the characteristic impedance at 1 MHz 100 MHz  | 5 %  |
| near-end crosstalk per length   |  |
| • at 1 MHz 100 MHz  | 0.5 dB/m   |
| transfer impedance per length / at 10 MHz   | 20 mΩ/m  |
| loop resistance per length / maximum  | 120 mΩ/m   |
| operating voltage   |  |
| RMS value   | 80 V   |
| NVP value in percent  | 66 %   |
| mechanical data   |  |
| number of electrical cores  | 4  |
| design of the shield  | Overlapped aluminum-clad foil, sheathed in a braided screen of tin-plated copper wires |
| core diameter   |  |
| of AWG22 insulated conductor  | 0.75 mm  |
| outer diameter  |  |
| of inner conductor  | 0.75 mm  |
| <ul> <li>of the wire insulation</li> </ul>  | 1.5 mm   |
| <ul> <li>of the inner sheath of the cable</li> </ul>  | 3.9 mm   |
| of cable sheath   | 6.5 mm   |
| symmetrical tolerance of the outer diameter / of cable sheath   | 0.2 mm   |
| material.   |  |
| material  |  |
| of the wire insulation  | polyethylene (PE)  |
|   | polyethylene (PE) PVC  |
| of the wire insulation  |  |
| <ul><li> of the wire insulation</li><li> of the inner sheath of the cable</li></ul>                           | PVC  |
| <ul> <li>of the wire insulation</li> <li>of the inner sheath of the cable</li> <li>of cable sheath</li> </ul> | PVC  |

| bending radius  |   |
|---|---|
| <ul> <li>with single bend / minimum permissible</li> </ul>      | 32.5 mm   |
| <ul><li>with multiple bends / minimum permissible</li></ul>     | 58.5 mm   |
| with continuous bending   | 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/s² |
| tensile load / maximum  | 150 N   |
| weight per length   | 68 kg/km  |
| ambient conditions  |   |
| ambient temperature   |   |
| <ul> <li>during operation</li> </ul>                            | -25 +75 °C  |
| during storage  | -25 +75 °C  |
| <ul> <li>during transport</li> </ul>                            | -25 +75 °C  |
| during installation   | -10 +60 °C  |
| • note  | 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   |   |
| • to mineral oil  | conditional resistance  |
| • to grease   | Conditional resistance  |
| • to water  | conditional resistance  |
| radiological resistance / to UV radiation                       | resistant   |
| product features, product functions, product components / ge    | eneral  |
| product feature   |   |
| halogen-free  | No  |
| • silicon-free  | 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; cRUus AWM 21694 AWM I A/B 60°C 600V FT2  |
| certificate of suitability                                      |   |
| EAC approval  | Yes   |
| • CE marking  | Yes   |
| RoHS conformity   | Yes   |
| standard for structured cabling                                 | Cat5e, class D  |
| Marine classification association                               | Outoo, duoo B   |
| American Bureau of Shipping Europe Ltd. (ABS)                   | No  |
| French marine classification society (BV)                       | No  |
| Det Norske Veritas (DNV)  | No  |
| ,   |   |
| Germanische Lloyd (GL)     Lloyds Pegister of Shipping (LPS)    | No<br>No  |
| Lloyds Register of Shipping (LRS)     Nippen Kajii Kyokai (NK)  | No<br>No  |
| Nippon Kaiji Kyokai (NK)     Poloki Polostr Statkov (PPS)       | No<br>No  |
| Polski Rejestr Statkow (PRS)  reference code.                   | No  |
| reference code  | WC  |
| according to IEC 81346-2     according to IEC 81346-2:2010      | WG  |
| • according to IEC 81346-2:2019                                 | WGB   |
| further information / internet links                            |   |
| internet link   |   |
| to web page: selection aid TIA Selection Tool                   | http://www.siemens.com/tia-selection-tool   |
| to website: Industrial communication                            | http://www.siemens.com/simatic-net  |
| to website: Industry Mall                                       | https://mall.industry.siemens.com   |
| <ul> <li>to website: Information and Download Center</li> </ul> | http://www.siemens.com/industry/infocenter  |
|   |   |
| to website: Selection guide for cables and connectors           | https://sie.ag/2QdlxcP  |
| to website: Image database                                      | http://automation.siemens.com/bilddb  |
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