# SIEMENS

**Data sheet**                                                 **6XV1871-5BH20**

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| **product type designation** | **IE Connecting Cable IE FC RJ45-180 / IE FC RJ45-180** |
| product description | 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 2.0 m. |



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| suitability for use | For connecting Industrial Ethernet stations with an RJ45 interface (10/100 Mbps) |
| wire length | 2 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 |
| ● of the wire insulation | 1.5 mm |
| ● of the inner sheath of the cable | 3.9 mm |
| ● of cable sheath | 6.5 mm |
| symmetrical tolerance of the outer diameter / of cable sheath | 0.2 mm |
| material | |
| ● of the wire insulation | polyethylene (PE) |
| ● of the inner sheath of the cable | PVC |
| ● of cable sheath | PVC |
| color | |
| ● of the insulation of data wires | white/yellow/blue/orange |
| ● of cable sheath | green |

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| bending radius | |
| ● with single bend / minimum permissible | 32.5 mm |
| ● with multiple bends / minimum permissible | 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 | |
| ● during operation | -25 ... +75 °C |
| ● during storage | -25 ... +75 °C |
| ● during transport | -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 / general** | |
| 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 | |
| ● 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 |
| reference code | |
| ● according to IEC 81346-2 | 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 |
| ● to website: Information and Download Center | 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 |
| ● to website: CAx-Download-Manager | http://www.siemens.com/cax |
| ● to website: Industry Online Support | https://support.industry.siemens.com |

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| **last modified:** | 5/28/2023 |