## **SIEMENS**

Data sheet 6XV1878-5BH20

## product type designation

product description

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

Flexible plug-in cable (8-wire), preferred length, prefabricated with two IE FC RJ45 connectors 4X2

IE connecting cable IE FC RJ45 Plug-180/IE FC RJ45 Plug-180; IE FC flexible GP 4x2 cable Pre-assembled with 2x IE FC RJ45 plug 180 4 x 2; Length 2.0 m.



suitability for use	For connecting Industrial Ethernet stations with an RJ45 interface (10/100/1000/10000Mbps)
wire length	2 m
electrical data	
number of electrical connections	2
attenuation factor per length	
• at 10 MHz / maximum	0.089 dB/m
• at 100 MHz / maximum	0.287 dB/m
• at 250 MHz / maximum	0.466 dB/m
• at 300 MHz / maximum	0.514 dB/m
• at 500 MHz / maximum	0.679 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	180 mΩ/m
insulation resistance coefficient	5000 GΩ·m
operating voltage	
RMS value	80 V
NVP value in percent	68 %
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	
<ul> <li>of AWG24 insulated conductor</li> </ul>	0.51 mm
outer diameter	
• of inner conductor	0.6 mm
<ul> <li>of the wire insulation</li> </ul>	1.05 mm
<ul> <li>of the inner sheath of the cable</li> </ul>	6.4 mm
of cable sheath	8 mm
symmetrical tolerance of the outer diameter / of cable sheath	0.2 mm
material	

e of the wire insulation	nolyathylana (DE)
<ul><li> of the wire insulation</li><li> of the inner sheath of the cable</li></ul>	polyethylene (PE) FRNC
of cable sheath	PVC
color	
of the insulation of data wires	white-blue/blue, white-orange/orange, white-green/green, white-brown/brown
of cable sheath	green
bending radius	
<ul> <li>with single bend / minimum permissible</li> </ul>	24 mm
with multiple bends / minimum permissible	40 mm
tensile load / maximum	100 N
weight per length	86 kg/km
ambient conditions	
ambient temperature	
<ul> <li>during operation</li> </ul>	-40 +80 °C
during storage	-40 +80 °C
<ul> <li>during transport</li> </ul>	-40 +80 °C
during installation	-40 +80 °C
fire behavior	flame resistant according to IEC 60332-3-24 (Category C)
chemical resistance	
● to mineral oil	oil resistant according to IEC 60811-2-1 (4 h / 70°C)
• to grease	Conditional resistance
• to water	conditional resistance
radiological resistance / to UV radiation	resistant
product features, product functions, product components / gene	
product feature	
halogen-free	No
• silicon-free	Yes
wire length / for Industrial Ethernet	165
with 100BaseTX	80 m
• with 1000BaseT	80 m
• for 10GBase T	70 m
standards, specifications, approvals	V (ETI) ONO :: I
UL/ETL listing / 300 V Rating	Yes; c(ETL)us, CMG, wiring harness
UL/ETL style / 600 V Rating	No
certificate of suitability	
<ul> <li>EAC approval</li> </ul>	Yes
• CE marking	Yes
RoHS conformity	Yes
product conformity	
<ul> <li>ANSI/TIA-EIA 568-B.2 Cat.5e</li> </ul>	
- IEC 64794 F 2 CD 2/2 (Ethornot/ID)	Yes
• IEC 61784-5-2-CP 2/2 (Ethernet/IP)	Yes Yes
standard for structured cabling	
	Yes
standard for structured cabling	Yes
standard for structured cabling  Marine classification association	Yes Cat6A, class EA
standard for structured cabling  Marine classification association  • American Bureau of Shipping Europe Ltd. (ABS)	Yes Cat6A, class EA No
standard for structured cabling  Marine classification association  • American Bureau of Shipping Europe Ltd. (ABS)  • French marine classification society (BV)	Yes Cat6A, class EA  No No
standard for structured cabling  Marine classification association  • American Bureau of Shipping Europe Ltd. (ABS)  • French marine classification society (BV)  • Det Norske Veritas (DNV)	Yes Cat6A, class EA  No No No
standard for structured cabling  Marine classification association  • American Bureau of Shipping Europe Ltd. (ABS)  • French marine classification society (BV)  • Det Norske Veritas (DNV)  • Germanische Lloyd (GL)	Yes Cat6A, class EA  No No No No
standard for structured cabling  Marine classification association  • 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)	Yes Cat6A, class EA  No No No No No No
standard for structured cabling  Marine classification association  • 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)	Yes Cat6A, class EA  No No No No No No No No
standard for structured cabling  Marine classification association  • 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)  reference code	Yes Cat6A, class EA  No
standard for structured cabling  Marine classification association  • 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)  reference code  • according to IEC 81346-2	Yes Cat6A, class EA  No No No No No No No No No WG
standard for structured cabling  Marine classification association  • 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)  reference code  • according to IEC 81346-2  • according to IEC 81346-2:2019	Yes Cat6A, class EA  No
standard for structured cabling  Marine classification association  • 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)  reference code  • according to IEC 81346-2  • according to IEC 81346-2:2019  further information / internet links	Yes Cat6A, class EA  No No No No No No No No No WG
standard for structured cabling  Marine classification association  • 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)  reference code  • according to IEC 81346-2  • according to IEC 81346-2:2019  further information / internet links  internet link	Yes Cat6A, class EA  No No No No No No Wo WG WGB
standard for structured cabling  Marine classification association  • 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)  reference code  • according to IEC 81346-2  • according to IEC 81346-2:2019  further information / internet links  internet link  • to web page: selection aid TIA Selection Tool	Yes Cat6A, class EA  No No No No No No No WG WGB
standard for structured cabling  Marine classification association  • 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)  reference code  • according to IEC 81346-2  • according to IEC 81346-2:2019  further information / internet links  internet link  • to web page: selection aid TIA Selection Tool  • to website: Industrial communication	Yes Cat6A, class EA  No No No No No No No WG WGB  http://www.siemens.com/tia-selection-tool http://www.siemens.com/simatic-net
standard for structured cabling  Marine classification association  • 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)  reference code  • according to IEC 81346-2  • according to IEC 81346-2:2019  further information / internet links  internet link  • to web page: selection aid TIA Selection Tool  • to website: Industrial communication  • to website: Industry Mall	Yes Cat6A, class EA  No No No No No No No No WG WGB  http://www.siemens.com/tia-selection-tool http://www.siemens.com/simatic-net https://mall.industry.siemens.com
standard for structured cabling  Marine classification association  • 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)  reference code  • according to IEC 81346-2  • according to IEC 81346-2:2019  further information / internet links  internet link  • to web page: selection aid TIA Selection Tool  • to website: Industrial communication	Yes Cat6A, class EA  No No No No No No No WG WGB  http://www.siemens.com/tia-selection-tool http://www.siemens.com/simatic-net

• 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

5/28/2023 last modified:

## **Mouser Electronics**

**Authorized Distributor** 

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Siemens:

6XV18785BH20