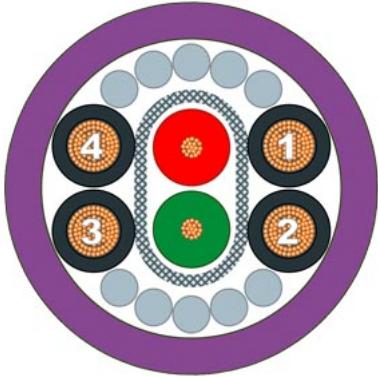


## Data sheet

6XV1830-7BN20

product type designation

product description



**PROFIBUS ECOFAST Hybrid Cable**

ECOFAST Hybrid cable (data and energy wires), preferred length, assembled with ECOFAST connector and socket

PROFIBUS ECOFAST Hybrid Cable, 2xCu 0.64 mm, 4x Cu 1.5 mm<sup>2</sup>, Cable pre-assembled with ECOFAST plug and socket, trailable, length 20 m.

Technical Product Detail Page

<https://i.siemens.com/1P6XV1830-7BN20>

suitability for use

Hybrid cable for connection of ECOFAST stations

cable designation

02Y (ST)C 1 x 2 x 0.65/2.56 - 150 LI LIH-Z 11Y 4 x 1 x 1.5 VI FRNC

wire length

20 m

**electrical data**

attenuation factor per length

- at 9.6 kHz / maximum 0.003 dB/m
- at 38.4 kHz / maximum 0.004 dB/m
- at 4 MHz / maximum 0.025 dB/m
- at 16 MHz / maximum 0.049 dB/m

impedance

- rated value 150 Ω
- at 9.6 kHz 270 Ω
- at 38.4 kHz 185 Ω
- at 3 MHz ... 20 MHz 150 Ω

relative symmetrical tolerance

- of the characteristic impedance at 9.6 kHz 10 %
- of the characteristic impedance at 38.4 kHz 10 %
- of the characteristic impedance at 3 MHz ... 20 MHz 10 %

loop resistance per length / maximum

138 Ω/km

shield resistance per length / maximum

15 Ω/km

insulation resistance coefficient

20 GΩ·m

operating voltage / maximum

80 V

capacity per length / at 1 kHz

30 pF/m

operating voltage / RMS value

100 V

conductor cross section / of the power line

1.5 mm<sup>2</sup>

continuous current / of the power lines

12 A

**mechanical data**

design of the shield

Overlapped aluminum-clad foil, sheathed in a braided screen of tin-plated copper wires

number of electrical cores

6

type of electrical connection / FastConnect

No

outer diameter

- of inner conductor 0.67 mm
- of the wire insulation 2.56 mm
- of cable sheath 11 mm

symmetrical tolerance of the outer diameter / of cable sheath

0.3 mm

material	<ul style="list-style-type: none"> <li>• of the wire insulation</li> <li>• of cable sheath</li> </ul>	<p>Polyethylene (PE) PUR</p>
color	<ul style="list-style-type: none"> <li>• of the insulation of data wires</li> <li>• of the power line insulation</li> <li>• of cable sheath</li> </ul>	<p>red / green Black Violet</p>
bending radius	<ul style="list-style-type: none"> <li>• with multiple bends / minimum permissible</li> </ul>	82.5 mm
number of bending cycles		5000000; For use in cable carriers, for 5 million bending cycles with a bending radius of 82.5 mm (7.5x D) and an acceleration of 2.5 m/s <sup>2</sup>
tensile load / maximum		300 N
weight per length		150 kg/km
<b>ambient conditions</b>		
ambient temperature	<ul style="list-style-type: none"> <li>• during operation</li> <li>• during storage</li> <li>• during transport</li> <li>• during installation</li> <li>• note</li> </ul>	<p>-40 ... +60 °C -40 ... +60 °C -40 ... +60 °C -40 ... +60 °C Electrical properties measured at 20 Cel, verification according to DIN 47250 part 4 respectively DIN VDE 0472</p>
fire behavior		flame-retardant according to IEC 60332-1
chemical resistance	<ul style="list-style-type: none"> <li>• to mineral oil</li> <li>• to grease</li> </ul>	<p>Conditional resistance Conditional resistance</p>
radiological resistance / to UV radiation		resistant
protection class IP		IP65
<b>product features, product functions, product components / general</b>		
product feature	<ul style="list-style-type: none"> <li>• halogen-free</li> <li>• silicon-free</li> </ul>	<p>Yes Yes</p>
<b>standards, specifications, approvals</b>		
UL/ETL listing / 300 V Rating		No
UL/ETL style / 600 V Rating		No
certificate of suitability	<ul style="list-style-type: none"> <li>• EAC approval</li> <li>• RoHS conformity</li> </ul>	<p>Yes Yes</p>
<b>further information / internet links</b>		
internet link	<ul style="list-style-type: none"> <li>• to website: Selection guide for cables and connectors</li> <li>• to web page: selection aid TIA Selection Tool</li> <li>• to website: Industrial communication</li> <li>• to web page: SiePortal</li> <li>• to website: Image database</li> <li>• to website: CAx-Download-Manager</li> <li>• to website: Industry Online Support</li> </ul>	<p><a href="https://support.industry.siemens.com/cs/ww/en/view/109766358">https://support.industry.siemens.com/cs/ww/en/view/109766358</a>  <a href="https://www.siemens.com/tstcloud">https://www.siemens.com/tstcloud</a>  <a href="https://www.siemens.com/simatic-net">https://www.siemens.com/simatic-net</a>  <a href="https://sieportal.siemens.com/">https://sieportal.siemens.com/</a>  <a href="https://www.automation.siemens.com/bilddb">https://www.automation.siemens.com/bilddb</a>  <a href="https://www.siemens.com/cax">https://www.siemens.com/cax</a>  <a href="https://support.industry.siemens.com">https://support.industry.siemens.com</a></p>
<b>security information</b>		
security information		<p>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, state-of-the-art industrial cybersecurity concept. Siemens' products and solutions constitute one element of such a concept. Customers are responsible for preventing unauthorized access to their plants, systems, machines and networks. Such systems, machines and components should only be connected to an enterprise network or the internet if and to the extent such a connection is necessary and only when appropriate security measures (e.g. firewalls and/or network segmentation) are in place. For additional information on industrial cybersecurity measures that may be implemented, please visit <a href="http://www.siemens.com/cybersecurity-industry">www.siemens.com/cybersecurity-industry</a>. Siemens' products and solutions undergo continuous development to make them more secure. Siemens strongly recommends that product updates are applied as soon as they are available and that the latest product versions are used. Use of product versions that are no longer supported, and failure to apply the latest updates may increase</p>

## Approvals / Certificates

### General Product Approval

[Declaration of Conformity](#)



[Manufacturer Declaration](#)

[China RoHS](#)

General Product Approval

Maritime application



last modified:

10/30/2025