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Data sheet 6XV1830-7BN10

Product type designation	**PROFIBUS ECOFAST Hybrid Cable**
Product description	ECOFAST Hybrid cable (data and energy wires), preferred length, assembled with ECOFAST connector and socket SIMATIC NET,PROFIBUS ECOFAST HYBRID CABLE, 2XCU 0.64 MM, 4XCU 1.5 SQMM, CABLE PREASSEMBLED WITH ECOFAST CONNECTOR AND SOCKET, TRAILING TYPE, LENGTH: 10 M
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	10 m
Electrical data	
Damping ratio 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
Capacity per length / at 1 kHz	30 pF/m
Operating voltage / RMS value	100 V
Conductor cross section / of the power wire	1.5 mm²
Continuous current / of the power wires	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	

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• 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	
• of the wire insulation	PE
• of cable sheath	PUR
Color	
• of the insulation of data wires	red / green
• of the power wire insulation	Black
• of cable sheath	Violet
Bending radius	
• with multiple bends / minimum permissible	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/s²
Tensile load / maximum	300 N
Weight per length	150 kg/km

Permitted ambient conditions

Ambient temperature	
• during operation	-40 ... +60 °C
• during storage	-40 ... +60 °C
• during transport	-40 ... +60 °C
• during installation	-40 ... +60 °C
• Note	Electrical properties measured at 20 Cel, verification according to DIN 47250 part 4 respectively DIN VDE 0472
Burning behavior	flame-retardant according to IEC 60332-1
Chemical resistance	
• to mineral oil	Conditional resistance
• to grease	Conditional resistance
Radiological resistance / to UV radiation	resistant
Protection class IP	IP65

Product properties, functions, components / general

Product feature	
• halogen-free	Yes
• silicon-free	Yes

Standards, specifications, approvals

UL/ETL listing / 300 V Rating	No
UL/ETL style / 600 V Rating	No
Certificate of suitability	
• RoHS conformity	Yes

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Further Information / Internet Links

Internet-Link	
• to website: Selector SIMATIC NET SELECTION TOOL	http://www.siemens.com/snst
• 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: 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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