

Data sheet

6XV1860-3PN20

Product type designation

Product description

PROFIBUS ECOFAST Hybrid Cable GP

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

PROFIBUS ECOFAST Hybrid Cable GP, 2x Cu 0.64 mm, 4x Cu 1.5 mm², Cable pre-assembled with ECOFAST connector and socket, trailable, Length 20 m



Suitability for use	Hybrid cable for connection of ECOFAST stations, UL approval
Cable designation	02Y (ST)C 1x2x0.65/2.56 -150 LI LY-Z Y 4x1x1.5 VI
Wire length	20 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
Operating voltage / maximum	80 V
Capacity per length / at 1 kHz	30 pF/m
Operating voltage / RMS value	600 V
Conductor cross section / of the power wire	1.5 mm ²
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	
• 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	polyethylene (PE)
• of cable sheath	PVC
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	110 mm
Number of bending cycles	1000000; For use in cable carriers, for 1 million bending cycles with a bending radius of 166 mm (15x D) and an acceleration of 4.0 m/s ²
Tensile load / maximum	300 N
Weight per length	154 kg/km

Ambient conditions

Ambient temperature	
• during operation	-30 ... +80 °C
• during storage	-30 ... +80 °C
• during transport	-30 ... +80 °C
• during installation	-30 ... +80 °C

• Note	Electrical properties measured at 20 Cel, verification according to DIN 47250 part 4 respectively DIN VDE 0490
Burning behavior	flame-retardant according to IEC 60332-3-24 (Category C)
Chemical resistance • to mineral oil • to grease	Conditional resistance Conditional resistance
Radiological resistance / to UV radiation	resistant
Protection class IP	IP65

Product features, product functions, product components / general

Product feature • halogen-free • silicon-free	Yes Yes
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Standards, specifications, approvals

UL/ETL listing / 300 V Rating	No
UL/ETL style / 600 V Rating	Yes; CM / CL3 / SunRes / OilRes
Certificate of suitability • RoHS conformity	Yes

Further information / Internet-Links

Internet-Link • to website: Selector SIMATIC NET SELECTION TOOL • to website: Industrial communication • to website: Industry Mall • to website: Information and Download Center • to website: Image database • to website: CAx Download Manager • to website: Industry Online Support	http://www.siemens.com/snst http://www.siemens.com/simatic-net https://mall.industry.siemens.com http://www.siemens.com/industry/infocenter http://automation.siemens.com/bilddb http://www.siemens.com/cax https://support.industry.siemens.com
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