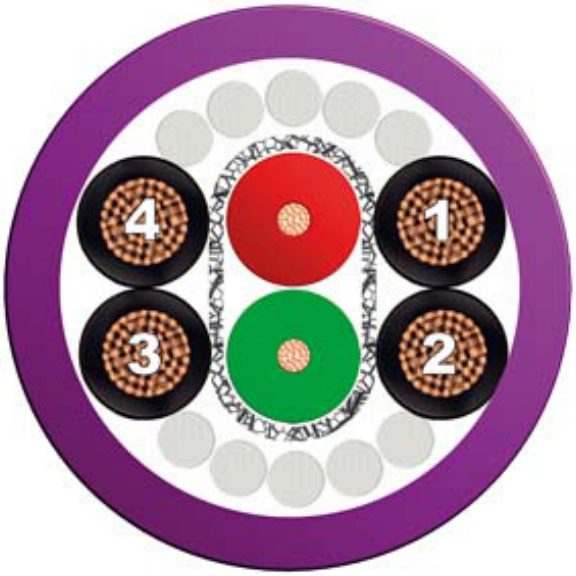
SIEMENS

Data sheet 6XV1830-7AH10

Product type designation
Product description

PROFIBUS ECOFAST Hybrid Cable
ECOFAST Hybrid cable (data and energy wires), product sold by meter, unassembled
SIMATIC NET,PROFIBUS ECOFAST HYBRID CABLE, TRAILING TYPE CABLE WITH 4XCU (1.5 SQMM) AND 2XCU (0.64 MM) SHIELDED, SOLD BY THE METER, MAX. CONSIGNMENT: 1000 M MIN. ORDER QUANTITY: 20 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

Electrical data	
Damping ratio per length	
• at 9.6 kHz / maximum	0.004 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 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	
• 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

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

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

last modified: 08/28/2017