SIEMENS

Data sheet   **6XV1870-2J**

product type designation	IE Hybrid Cable 2x2 + 4x0.34
product description	Hybrid cable (data and energy wires), product sold by meter, unassembled

Industrial Ethernet Hybrid Cable 2x2+4x 0.34, flexible Cable, 4x CU CAT5, shielded (0.75 mm) and 4x CU (0.34 mm2) for IE FC modular outlet with Power insert and IP67 hybrid plug-in connector Sold by the meter max. delivery unit 1000 m, minimum order quantity 20 m.

suitability for use	Ethernet hybrid cable for transfer of data and power
cable designation	2YH (ST) C 2x2x0.75/1.5LI LIH H 2x2x0.34/1.6GN FRNC

electrical data	
attenuation factor per length	
● at 10 MHz / maximum	0.075 dB/m
● at 100 MHz / maximum	0.26 dB/m
impedance	
● at 1 MHz ... 100 MHz	100 Ω
relative symmetrical tolerance	
● of the characteristic impedance at 1 MHz … 100 MHz	15 %
near-end crosstalk per length / at 1 MHz ... 100 MHz	0.353 dB/m
transfer impedance per length / at 10 MHz	10 mΩ/m
loop resistance per length / maximum	120 Ω/km
insulation resistance coefficient	500 GΩ·m
operating voltage / maximum	80 V
operating voltage / RMS value	100 V
conductor cross section / of the power line	0.34 mm²
continuous current / of the power lines	5 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	8
type of electrical connection / FastConnect	No
core diameter / of AWG22 insulated conductor	0.76 mm
outer diameter	
● of inner conductor	0.76 mm
● of the wire insulation	1.5 mm
● of the inner sheath of the cable	3.9 mm
● of cable sheath	8.5 mm
symmetrical tolerance of the outer diameter / of cable sheath	0.4 mm
material	
● of the wire insulation	polyethylene (PE)
● of the inner sheath of the cable	FRNC
● of cable sheath	FRNC
color	
● of the insulation of data wires	white / yellow / blue / orange
● of the power line insulation	Black/brown
● of cable sheath	green

2/4/2025

bending radius	
● with single bend / minimum permissible	42.5 mm
● with multiple bends / minimum permissible	85 mm
tensile load / maximum	260 N
weight per length	105 kg/km

ambient conditions

ambient temperature	
● during operation	-25 ... +70 °C
● during storage	-25 ... +70 °C
● during transport	-25 ... +70 °C
● during installation	-25 ... +70 °C
● note	Electrical properties measured at 20 Cel, verification according to DIN 47250 part 4 respectively DIN VDE 0490
fire behavior	flame-retardant according to IEC 60332-3-24 (Category C)
class of burning behaviour / according to EN 13501-6	Eca
chemical resistance	
● to mineral oil	Conditional resistance
● to grease	Conditional resistance
● to water	Conditional resistance
radiological resistance / to UV radiation	resistant

product features, product functions, product components / general

product feature	
● halogen-free	Yes
● silicon-free	Yes
wire length / with 100BaseTX / for Industrial Ethernet	100 m

standards, specifications, approvals

UL/ETL listing / 300 V Rating	Yes; CMG / PLTC / SunRes
UL/ETL style / 600 V Rating	Yes
certificate of suitability	
● EAC approval	Yes
● RoHS conformity	Yes
standard for structured cabling	Cat 5e (data cores), AWG 22 (power cores)
reference code	
● according to IEC 81346-2:2019	WZA

further information / internet links

internet link	
● to website: Selection guide for cables and connectors	https://support.industry.siemens.com/cs/ww/en/view/109766358
● to web page: selection aid TIA Selection Tool	https://www.siemens.com/tstcloud
● to website: Industrial communication	https://www.siemens.com/simatic-net
● to web page: SiePortal	https://sieportal.siemens.com/
● to website: Image database	https://www.automation.siemens.com/bilddb
● to website: CAx-Download-Manager	https://www.siemens.com/cax
● to website: Industry Online Support	https://support.industry.siemens.com

security information

security information	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 www.siemens.com/cybersecurity-industry. 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 customer's exposure to cyber threats. To stay informed about product updates, subscribe to the Siemens Industrial Cybersecurity RSS Feed under https://www.siemens.com/cert. (V4.7)

Approvals / Certificates

General Product Approval	Environment

Manufacturer Declaration	CE EG-Konf.	Declaration of Conformity	UK CA	CCC	Confirmation

---

last modified: 8/8/2024 ↗