SIEMENS

Data sheet 6XV1870-3QH10

product type designation

product description

IE TP Cord RJ45/RJ45, 4x2

Patch cable, preferred length, preassembled with two RJ45 connectors (10/100/1000/10000MB)

Industrial Ethernet TP Cord RJ45/RJ45, CAT 6A, TP cable 4x2, pre-assembled with 2 RJ45 connectors, length 1 m.



suitability for use	Easy connection of terminal devices to the IE FC cabling system
wire length	1 m
electrical data	
number of electrical connections	2
attenuation factor per length	
• at 10 MHz / maximum	0.086 dB/m
• at 100 MHz / maximum	0.28 dB/m
• at 300 MHz / maximum	0.501 dB/m
• at 600 MHz / maximum	0.735 dB/m
impedance	
• at 1 MHz 100 MHz	100 Ω
• at 10 MHz 600 MHz	100 Ω
relative symmetrical tolerance	
• of the characteristic impedance at 1 MHz 100 MHz	15 %
• of the characteristic impedance at 10 MHz 600 MHz	10 %
coupling loss / at 30 MHz 100 MHz / minimum	70 dB
transfer impedance per length / at 10 MHz	10 mΩ/m
loop resistance per length / maximum	290 mΩ/m
insulation resistance coefficient	500 GΩ·m
operating voltage	
RMS value	80 V
NVP value in percent	80 %
mechanical data	
number of electrical cores	8
core diameter	
 of AWG26 insulated conductor 	0.5 mm
outer diameter	
 of inner conductor 	0.5 mm
 of the wire insulation 	1 mm
 of cable sheath 	6.2 mm
symmetrical tolerance of the outer diameter / of cable sheath	0.3 mm
material	
 of the wire insulation 	polyethylene (PE)
of cable sheath	FRNC
color	
of the insulation of data wires	white/blue, white/orange, white/green, white/brown

bending radius	
with single bend / minimum permissible	31 mm
with multiple bends / minimum permissible	43.5 mm
weight per length	50 kg/km
plug	Due
connector type	RJ45
type of plug interlock	latched
design of plug-in connection	RJ45-180
ambient conditions	
ambient temperature	
during operation	-25 +80 °C
during storage	-25 +80 °C
during transport	-25 +80 °C
during installation	-25 +80 °C
• note	In fixed installation -40 °C to 80 °C
fire behavior	flame resistant according to IEC 60332-1-2, smoke density according to IEC 61034
class of burning behaviour / according to EN 13501-6	Eca
chemical resistance	
• to mineral oil	oil resistant according to IEC 60811-2-1 (4 h / 70°C)
• to grease	Conditional resistance
radiological resistance / to UV radiation	not resistant
protection class IP	IP20
product features, product functions, product components / general	
product feature	
halogen-free	Yes
 PoE capability 	Yes
 PoE+ capability 	Yes
 PoE++ capability 	Yes
• silicon-free	Yes
test voltage	
• at AC / core-to-core	500 V
at AC / core shield	1500 V
standards, specifications, approvals	
UL/ETL listing / 300 V Rating	No
UL/ETL style / 600 V Rating	Yes; E502506 AWM STYLE 21279
certificate of suitability	ISO/IEC 11801-1, IEC 61035
EAC approval	Yes
• UL approval	Yes
RoHS conformity	Yes
standard for structured cabling	Cat6A
Marine classification association	
American Bureau of Shipping Europe Ltd. (ABS)	No
French marine classification society (BV) Det Nerske Verites (DNV)	No
Det Norske Veritas (DNV) Cormanische Llevel (CL)	No
Germanische Lloyd (GL) Lloyde Parieta of Objection (LDC)	No
Lloyds Register of Shipping (LRS) Nippon Kajii Kyokai (NK)	No No
Nippon Kaiji Kyokai (NK) Polski Rejectr Statkow (PRS)	No No
Polski Rejestr Statkow (PRS) reference code	NO
	WG
• according to IEC 81346-2	WG WGB
according to IEC 81346-2according to IEC 81346-2:2019	WG WGB
 according to IEC 81346-2 according to IEC 81346-2:2019 further information / internet links 	
according to IEC 81346-2 according to IEC 81346-2:2019 further information / internet links internet link	WGB
according to IEC 81346-2 according to IEC 81346-2:2019 further information / internet links internet link to website: Selection guide for cables and connectors	https://support.industry.siemens.com/cs/ww/en/view/109766358
according to IEC 81346-2 according to IEC 81346-2:2019 further information / internet links internet link to website: Selection guide for cables and connectors to web page: selection aid TIA Selection Tool	https://support.industry.siemens.com/cs/ww/en/view/109766358 https://www.siemens.com/tstcloud
according to IEC 81346-2 according to IEC 81346-2:2019 further information / internet links internet link to website: Selection guide for cables and connectors to web page: selection aid TIA Selection Tool to web page: SiePortal	https://support.industry.siemens.com/cs/ww/en/view/109766358 https://www.siemens.com/tstcloud https://sieportal.siemens.com/
according to IEC 81346-2 according to IEC 81346-2:2019 further information / internet links internet link to website: Selection guide for cables and connectors to web page: selection aid TIA Selection Tool to web page: SiePortal to website: Image database	https://support.industry.siemens.com/cs/ww/en/view/109766358 https://www.siemens.com/tstcloud https://sieportal.siemens.com/ https://www.automation.siemens.com/bilddb
according to IEC 81346-2 according to IEC 81346-2:2019 further information / internet links internet link to website: Selection guide for cables and connectors to web page: selection aid TIA Selection Tool to web page: SiePortal to website: Image database to website: CAx-Download-Manager	https://support.industry.siemens.com/cs/ww/en/view/109766358 https://www.siemens.com/tstcloud https://sieportal.siemens.com/ https://www.automation.siemens.com/bilddb https://www.siemens.com/cax
according to IEC 81346-2 according to IEC 81346-2:2019 further information / internet links internet link to website: Selection guide for cables and connectors to web page: selection aid TIA Selection Tool to web page: SiePortal to website: Image database	https://support.industry.siemens.com/cs/ww/en/view/109766358 https://www.siemens.com/tstcloud https://sieportal.siemens.com/ https://www.automation.siemens.com/bilddb

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

Manufacturer Declaration



Declaration of Conformity





China RoHS

General Product Approval

Test Certificates

Industrial Communication

Fire safety / Physical security

Special Test Certificate

PROFINET

last modified:

6/27/2025