SIEMENS

Data sheet 6XV1870-3QH60

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 6 m.



suitability for use	Easy connection of terminal devices to the IE FC cabling system
cable designation	LI 02YSCH 4x2x0,15 PIMF GN FRNC
wire length	6 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
operating voltage	
RMS value	80 V
NVP value in percent	80 %
mechanical data	
number of electrical cores	8
design of the shield	Overlapped aluminum-clad foil, sheathed in a braided screen of tin-plated copper wires
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

of cable sheath	green
bending radius	5, 55
with single bend / minimum permissible	31 mm
with multiple bends / minimum permissible	43.5 mm
weight per length	50 kg/km
plug	
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	all registers according to IEO 20044-0-4 (4 h. / 7000)
• 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 / gen	eral
product feature	V
• halogen-free	Yes
• silicon-free	Yes
test voltage • at AC / core-to-core	F00.V
at AC / core-to-core at AC / core shield	500 V 1500 V
• at AC / core shield	1300 V
standards specifications approvals	
standards, specifications, approvals UL/ETL listing / 300 V Rating	No
UL/ETL listing / 300 V Rating	No Yes
UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating	Yes
UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating certificate of suitability	Yes ISO/IEC 11801-1, IEC 61035
UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating certificate of suitability • EAC approval	Yes
UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating certificate of suitability	Yes ISO/IEC 11801-1, IEC 61035 Yes
UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating certificate of suitability • EAC approval • UL approval	Yes ISO/IEC 11801-1, IEC 61035 Yes Yes
UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating certificate of suitability • EAC approval • UL approval • RoHS conformity	Yes ISO/IEC 11801-1, IEC 61035 Yes Yes Yes
UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating certificate of suitability • EAC approval • UL approval • RoHS conformity standard for structured cabling	Yes ISO/IEC 11801-1, IEC 61035 Yes Yes Yes
UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating certificate of suitability • EAC approval • UL approval • RoHS conformity standard for structured cabling Marine classification association	Yes ISO/IEC 11801-1, IEC 61035 Yes Yes Yes Cat6A
UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating certificate of suitability	Yes ISO/IEC 11801-1, IEC 61035 Yes Yes Yes Cat6A No
UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating certificate of suitability	Yes ISO/IEC 11801-1, IEC 61035 Yes Yes Yes Cat6A No
UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating certificate of suitability • EAC approval • UL approval • RoHS conformity standard for structured cabling Marine classification association • American Bureau of Shipping Europe Ltd. (ABS) • French marine classification society (BV) • Det Norske Veritas (DNV)	Yes ISO/IEC 11801-1, IEC 61035 Yes Yes Yes Cat6A No No
UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating certificate of suitability EAC approval UL approval RoHS conformity standard for structured cabling Marine classification association American Bureau of Shipping Europe Ltd. (ABS) French marine classification society (BV) Det Norske Veritas (DNV) Germanische Lloyd (GL)	Yes ISO/IEC 11801-1, IEC 61035 Yes Yes Yes Cat6A No No No No
UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating certificate of suitability EAC approval UL approval RoHS conformity standard for structured cabling Marine classification association American Bureau of Shipping Europe Ltd. (ABS) French marine classification society (BV) Det Norske Veritas (DNV) Germanische Lloyd (GL) Lloyds Register of Shipping (LRS)	Yes ISO/IEC 11801-1, IEC 61035 Yes Yes Yes Cat6A No No No No No
UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating certificate of suitability • EAC approval • UL approval • RoHS conformity standard for structured cabling Marine classification association • American Bureau of Shipping Europe Ltd. (ABS) • French marine classification society (BV) • Det Norske Veritas (DNV) • Germanische Lloyd (GL) • Lloyds Register of Shipping (LRS) • Nippon Kaiji Kyokai (NK)	Yes ISO/IEC 11801-1, IEC 61035 Yes Yes Yes Cat6A No No No No No No No
UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating certificate of suitability EAC approval UL approval RoHS conformity standard for structured cabling Marine classification association American Bureau of Shipping Europe Ltd. (ABS) French marine classification society (BV) Det Norske Veritas (DNV) Germanische Lloyd (GL) Lloyds Register of Shipping (LRS) Nippon Kaiji Kyokai (NK) Polski Rejestr Statkow (PRS)	Yes ISO/IEC 11801-1, IEC 61035 Yes Yes Yes Cat6A No No No No No No No
UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating certificate of suitability EAC approval UL approval RoHS conformity standard for structured cabling Marine classification association American Bureau of Shipping Europe Ltd. (ABS) French marine classification society (BV) Det Norske Veritas (DNV) Germanische Lloyd (GL) Lloyds Register of Shipping (LRS) Nippon Kaiji Kyokai (NK) Polski Rejestr Statkow (PRS) reference code according to IEC 81346-2 according to IEC 81346-2:2019	Yes ISO/IEC 11801-1, IEC 61035 Yes Yes Yes Cat6A No
UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating certificate of suitability EAC approval UL approval RoHS conformity standard for structured cabling Marine classification association American Bureau of Shipping Europe Ltd. (ABS) French marine classification society (BV) Det Norske Veritas (DNV) Germanische Lloyd (GL) Lloyds Register of Shipping (LRS) Nippon Kaiji Kyokai (NK) Polski Rejestr Statkow (PRS) reference code according to IEC 81346-2	Yes ISO/IEC 11801-1, IEC 61035 Yes Yes Yes Cat6A No
UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating certificate of suitability EAC approval UL approval RoHS conformity standard for structured cabling Marine classification association American Bureau of Shipping Europe Ltd. (ABS) French marine classification society (BV) Det Norske Veritas (DNV) Germanische Lloyd (GL) Lloyds Register of Shipping (LRS) Nippon Kaiji Kyokai (NK) Polski Rejestr Statkow (PRS) reference code according to IEC 81346-2 according to IEC 81346-2:2019	Yes ISO/IEC 11801-1, IEC 61035 Yes Yes Yes Cat6A No
UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating certificate of suitability EAC approval UL approval RoHS conformity standard for structured cabling Marine classification association American Bureau of Shipping Europe Ltd. (ABS) French marine classification society (BV) Det Norske Veritas (DNV) Germanische Lloyd (GL) Lloyds Register of Shipping (LRS) Nippon Kaiji Kyokai (NK) Polski Rejestr Statkow (PRS) reference code 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	Yes ISO/IEC 11801-1, IEC 61035 Yes Yes Yes Cat6A No No No No No No WG WGB https://support.industry.siemens.com/cs/ww/en/view/109766358
UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating certificate of suitability EAC approval UL approval RoHS conformity standard for structured cabling Marine classification association American Bureau of Shipping Europe Ltd. (ABS) French marine classification society (BV) Det Norske Veritas (DNV) Germanische Lloyd (GL) Lloyds Register of Shipping (LRS) Nippon Kaiji Kyokai (NK) Polski Rejestr Statkow (PRS) reference code 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	Yes ISO/IEC 11801-1, IEC 61035 Yes Yes Yes Cat6A No No No No No No WG WGB https://support.industry.siemens.com/cs/ww/en/view/109766358 https://www.siemens.com/tstcloud
UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating certificate of suitability EAC approval UL approval RoHS conformity standard for structured cabling Marine classification association American Bureau of Shipping Europe Ltd. (ABS) French marine classification society (BV) Det Norske Veritas (DNV) Germanische Lloyd (GL) Lloyds Register of Shipping (LRS) Nippon Kaiji Kyokai (NK) Polski Rejestr Statkow (PRS) reference code 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: SiePortal	Yes ISO/IEC 11801-1, IEC 61035 Yes Yes Yes Yes Cat6A No Ho Https://support.industry.siemens.com/cs/ww/en/view/109766358 https://www.siemens.com/tstcloud https://sieportal.siemens.com/
UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating certificate of suitability EAC approval UL approval RoHS conformity standard for structured cabling Marine classification association American Bureau of Shipping Europe Ltd. (ABS) French marine classification society (BV) Det Norske Veritas (DNV) Germanische Lloyd (GL) Lloyds Register of Shipping (LRS) Nippon Kaiji Kyokai (NK) Polski Rejestr Statkow (PRS) reference code 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: SiePortal to website: Image database	Yes ISO/IEC 11801-1, IEC 61035 Yes Yes Yes Yes Cat6A No Ho No Ho 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
UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating certificate of suitability EAC approval UL approval RoHS conformity standard for structured cabling Marine classification association American Bureau of Shipping Europe Ltd. (ABS) French marine classification society (BV) Det Norske Veritas (DNV) Germanische Lloyd (GL) Lloyds Register of Shipping (LRS) Nippon Kaiji Kyokai (NK) Polski Rejestr Statkow (PRS) reference code 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	Yes ISO/IEC 11801-1, IEC 61035 Yes Yes Yes Yes Cat6A No Ho No Ho 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
UL/ETL style / 600 V Rating UL/ETL style / 600 V Rating certificate of suitability EAC approval UL approval RoHS conformity standard for structured cabling Marine classification association American Bureau of Shipping Europe Ltd. (ABS) French marine classification society (BV) Det Norske Veritas (DNV) Germanische Lloyd (GL) Lloyds Register of Shipping (LRS) Nippon Kaiji Kyokai (NK) Polski Rejestr Statkow (PRS) reference code 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: Industry Online Support	Yes ISO/IEC 11801-1, IEC 61035 Yes Yes Yes Yes Cat6A No Ho No Ho 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
UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating certificate of suitability EAC approval UL approval RoHS conformity standard for structured cabling Marine classification association American Bureau of Shipping Europe Ltd. (ABS) French marine classification society (BV) Det Norske Veritas (DNV) Germanische Lloyd (GL) Lloyds Register of Shipping (LRS) Nippon Kaiji Kyokai (NK) Polski Rejestr Statkow (PRS) reference code 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: SiePortal to website: Image database to website: Image database to website: Industry Online Support	Yes ISO/IEC 11801-1, IEC 61035 Yes Yes Yes Yes Cat6A No ho https://support.industry.siemens.com/cs/ww/en/view/109766358 https://www.siemens.com/ https://www.siemens.com/ https://www.siemens.com/cax https://www.siemens.com/cax https://www.siemens.com/cax https://support.industry.siemens.com/ https://www.siemens.com/cax https://support.industry.siemens.com/ https://support.industry.siemens.com/
UL/ETL style / 600 V Rating UL/ETL style / 600 V Rating certificate of suitability EAC approval UL approval RoHS conformity standard for structured cabling Marine classification association American Bureau of Shipping Europe Ltd. (ABS) French marine classification society (BV) Det Norske Veritas (DNV) Germanische Lloyd (GL) Lloyds Register of Shipping (LRS) Nippon Kaiji Kyokai (NK) Polski Rejestr Statkow (PRS) reference code 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: Industry Online Support	Yes ISO/IEC 11801-1, IEC 61035 Yes Yes Yes Yes Cat6A No ho 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

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

Test Certificates

Manufacturer Declaration

CE

Declaration of Conformity





Special Test Certificate

Environment Industrial Communication

<u>Confirmation</u> <u>PROFINET</u>

last modified: 11/14/2024 🖸