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Data sheet 6XV1870-3QN20

product type designation	**IE TP Cord RJ45/RJ45, 4x2**
product description	Patch cable, preferred length, preassembled with two RJ45 connectors (10/100/1000/10000MB)
	Industrial Ethernet TP cord RJ45/RJ45, Cat6a, S/FTP cable 4x2, pre-assembled with 2 RJ45 connectors, length 20 m.



product brand name	SIMATIC NET
Technical Product Detail Page	https://i.siemens.com/1P6XV1870-3QN20
suitability for use	Easy connection of terminal devices to the IE FC cabling system
cable designation	S/FTP, LI 02YSCH 4x2x0,15 PIMF GN FRNC
wire length	20 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	S/FTP, overlapped aluminum-clad foil, sheathed in a protective braided shield of tinned 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)

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● 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	
● 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 acc. to IEC 60332-1-2, EN 60332-3-24, smoke density acc. 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; halogen-free according to EN 60754-2
● 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, Wiring Harness
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)	No
● Det Norske Veritas (DNV)	No
● Germanische Lloyd (GL)	No
● Lloyds Register of Shipping (LRS)	No
● Nippon Kaiji Kyokai (NK)	No
● Polski Rejestr Statkow (PRS)	No
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 web page: SiePortal	https://sieportal.siemens.com/
● to website: Image database	https://www.automation.siemens.com/bilddb

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● 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

Manufacturer Declaration	CE EG-Konf.	Declaration of Conformity	UKCA	Fire safety / Physical security	China RoHS

General Product Approval	Functional Saftey		Test Certificates	Industrial Communication
CE EG-Konf.	TUEV	Manufacturer Declaration	Special Test Certificate	PROFINET

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