SIEMENS

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, CAT 6A, TP cable 4x2, pre-assembled with 2 RJ45 connectors, length 20 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	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	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	
● 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	
● 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
● 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
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
reference code	
● according to IEC 81346-2	WG
● according to IEC 81346-2:2019	WGB

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
● 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.

Approvals / Certificates

General Product Approval

Manufacturer Declaration

CE EG-Konf.

Declaration of Conformity

UKCA

CCC

Test Certificates

Special Test Certificate

Environment	Industrial Communication
Confirmation	PROFINET

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