SIEMENS

Data sheet 6XV1870-3QH30

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, preassembled with 2 RJ45 connectors, length 3 m $\,$

cable designation LI 02YSCH 4x2x0,15 PIMF GN FRNC wire length 3 m attenuation factor per length 0.086 dB/m • at 10 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 1 MHz 500 MHz 100 Ω relative symmetrical tolerance • of the characteristic impedance at 1 MHz 100 15 % MHz • of the characteristic impedance at 10 MHz 600 10 % MHz 100 presistance 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 0 number of electrical cores 8 design of the shield Overlapped aluminum-clad foil, sheathed in a braided screen of tinplated copper wires core diameter • of AWG26 insulated conductor 0.5 mm of the wire insulation 1 mm 6.2 mm of the wire insulation 1 mm 6.2 mm	suitability for use	Easy connection of terminal devices to the IE FC cabling system
olectrical data attenuation factor per length 0.086 dB/m • at 100 MHz / maximum 0.28 dB/m • at 300 MHz / maximum 0.501 dB/m • at 500 MHz / maximum 0.735 dB/m impedance 0 at 1 MHz 600 MHz • at 1 MHz 600 MHz 100 Ω relative symmetrical tolerance 0 of the characteristic impedance at 1 MHz 100 Mrtz • of the characteristic impedance at 10 MHz 600 MHz 15 % transfer impedance per length / at 10 MHz 10 % MHz 20 mΩ/m loop resistance per length / maximum 290 mΩ/m operating voltage RNS value • RNS value 80 V NVP value in percent 80 % mumber of electrical cores 8 design of the shield Overlapped aluminum-clad foil, sheathed in a braided screen of tinplated copper wires core diameter • of AWG26 insulated 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)	cable designation	LI 02YSCH 4x2x0,15 PIMF GN FRNC
attenuation factor per length	wire length	3 m
• at 10 MHz / maximum	electrical data	
• at 100 MHz / maximum 0.501 dB/m • at 300 MHz / maximum 0.501 dB/m impedance 0.735 dB/m • at 10 MHz 100 MHz 100 Ω • at 10 MHz 600 MHz 100 Ω relative symmetrical tolerance 0 of the characteristic impedance at 1 MHz 100 MHz 15 % • of the characteristic impedance at 10 MHz 600 MHz 10 mΩ/m 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 tinplated copper wires core diameter • of AWG26 insulated conductor 0.5 mm of the wire insulation 0.5 mm • of cable sheath 6.2 mm symmetrical tolerance of the outer diameter / of cable sheath 0.3 mm • of the wire insulation polyethylene (PE)	attenuation factor per length	
• at 300 MHz / maximum • at 600 MHz / maximum 0.735 dB/m impedance • at 1 MHz 100 MHz • at 10 MHz 100 MHz 100 Ω relative symmetrical tolerance • of the characteristic impedance at 1 MHz 100 MHz • of the characteristic impedance at 10 MHz 600 MHz • of the characteristic impedance at 10 MHz 600 MHz transfer impedance per length / at 10 MHz loop resistance per length / maximum operating voltage • RMS value NVP value in percent mechanical data number of electrical cores design of the shield Coverlapped aluminum-clad foil, sheathed in a braided screen of tinplated copper wires core diameter • of AWG26 insulated conductor of the wire insulation of cable sheath symmetrical tolerance of the outer diameter / of cable sheath material • of the wire insulation polyethylene (PE)	• at 10 MHz / maximum	0.086 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 % • of the characteristic impedance at 10 MHz 600 MHz 10 % transfer impedance per length / at 10 MHz 10 mΩ/m loop resistance per length / maximum 290 mΩ/m operating voltage • RMS value • RMS value 80 ∨ NVP value in percent 80 % mechanical data 0 verlapped aluminum-clad foil, sheathed in a braided screen of tinplated copper wires core diameter • of AWG26 insulated conductor 0.5 mm ouer 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)	at 100 MHz / maximum	0.28 dB/m
impedance	at 300 MHz / maximum	0.501 dB/m
 at 1 MHz 100 MHz at 10 MHz 600 MHz 100 Ω relative symmetrical tolerance of the characteristic impedance at 1 MHz 100 MHz of the characteristic impedance at 10 MHz 600 MHz transfer impedance per length / at 10 MHz loop resistance per length / maximum operating voltage RMS value NVP value in percent design of the shield core diameter of AWG26 insulated conductor outer diameter of the wire insulation of the wire insulation of cable sheath symmetrical tolerance of the outer diameter / of cable sheath material of the wire insulation polyethylene (PE) 	• at 600 MHz / maximum	0.735 dB/m
at 10 MHz 600 MHz relative symmetrical tolerance of the characteristic impedance at 1 MHz 100 MHz of the characteristic impedance at 10 MHz 600 MHz transfer impedance per length / at 10 MHz toop resistance per length / maximum operating voltage RMS value NVP value in percent mechanical data number of electrical cores design of the shield Core diameter of AWG26 insulated conductor of the wire insulation of cable sheath symmetrical tolerance of the outer diameter / of cable sheath material of the wire insulation polyethylene (PE)	impedance	
relative symmetrical tolerance ● of the characteristic impedance at 1 MHz 100 MHz ● of the characteristic impedance at 10 MHz 600 MHz transfer impedance per length / at 10 MHz loop resistance per length / maximum operating voltage ● RMS value NVP value in percent **number of electrical cores* design of the shield Core diameter ● of AWG26 insulated conductor outer diameter ● of inner conductor ● of the wire insulation **of cable sheath symmetrical tolerance of the outer diameter / of cable sheath material ● of the wire insulation polyethylene (PE)	● at 1 MHz 100 MHz	100 Ω
 of the characteristic impedance at 1 MHz 100 MHz of the characteristic impedance at 10 MHz 600 MHz transfer impedance per length / at 10 MHz loop resistance per length / maximum operating voltage RMS value NVP value in percent design of the shield overlapped aluminum-clad foil, sheathed in a braided screen of tinplated copper wires core diameter of AWG26 insulated conductor of the wire insulation of cable sheath symmetrical tolerance of the outer diameter / of cable sheath material of the wire insulation polyethylene (PE) 	• at 10 MHz 600 MHz	100 Ω
MHz	relative symmetrical tolerance	
transfer impedance per length / at 10 MHz loop resistance per length / maximum operating voltage • RMS value 80 V NVP value in percent 80 % mechanical data number of electrical cores design of the shield Core diameter • of AWG26 insulated conductor outer diameter • of inner conductor • of the wire insulation symmetrical tolerance of the outer diameter / of cable sheath material • of the wire insulation polyethylene (PE)		15 %
loop resistance per length / maximum operating voltage ● RMS value NVP value in percent 80 % mechanical data number of electrical cores design of the shield Overlapped aluminum-clad foil, sheathed in a braided screen of tin-plated copper wires core diameter ● of AWG26 insulated conductor outer diameter ● of inner conductor ● of the wire insulation of cable sheath symmetrical tolerance of the outer diameter / of cable sheath material ● of the wire insulation polyethylene (PE)		10 %
operating voltage RMS value RMS value 80 V NVP value in percent 80 % mechanical data number of electrical cores design of the shield Overlapped aluminum-clad foil, sheathed in a braided screen of tin-plated copper wires core diameter of AWG26 insulated conductor outer diameter of inner conductor of the wire insulation of cable sheath symmetrical tolerance of the outer diameter / of cable sheath material of the wire insulation polyethylene (PE)	transfer impedance per length / at 10 MHz	10 mΩ/m
RMS value RMS value RVP value in percent 80 % Rechanical data number of electrical cores design of the shield Overlapped aluminum-clad foil, sheathed in a braided screen of tin-plated copper wires core diameter of AWG26 insulated conductor outer diameter of inner conductor of the wire insulation of cable sheath symmetrical tolerance of the outer diameter / of cable sheath material of the wire insulation polyethylene (PE)	loop resistance per length / maximum	290 mΩ/m
NVP value in percent mechanical data number of electrical cores design of the shield Overlapped aluminum-clad foil, sheathed in a braided screen of tin- plated copper wires core diameter of AWG26 insulated conductor outer diameter of inner conductor of the wire insulation of cable sheath symmetrical tolerance of the outer diameter / of cable sheath material of the wire insulation polyethylene (PE)	operating voltage	
number of electrical cores design of the shield Overlapped aluminum-clad foil, sheathed in a braided screen of tin- plated copper wires core diameter of AWG26 insulated conductor outer diameter of inner conductor of the wire insulation of cable sheath symmetrical tolerance of the outer diameter / of cable sheath material of the wire insulation polyethylene (PE)	RMS value	80 V
number of electrical cores design of the shield Overlapped aluminum-clad foil, sheathed in a braided screen of tin- plated copper wires core diameter of AWG26 insulated conductor outer diameter of inner conductor of the wire insulation of cable sheath symmetrical tolerance of the outer diameter / of cable sheath material of the wire insulation polyethylene (PE)	NVP value in percent	80 %
design of the shield Overlapped aluminum-clad foil, sheathed in a braided screen of tin- plated copper wires of AWG26 insulated conductor outer diameter of inner conductor of the wire insulation of cable sheath symmetrical tolerance of the outer diameter / of cable sheath material of the wire insulation polyethylene (PE)	mechanical data	
plated copper wires core diameter of AWG26 insulated conductor outer diameter of inner conductor of the wire insulation symmetrical tolerance of the outer diameter / of cable sheath material of the wire insulation polyethylene (PE)	number of electrical cores	8
of AWG26 insulated conductor Outer diameter of inner conductor of the wire insulation of cable sheath symmetrical tolerance of the outer diameter / of cable sheath material of the wire insulation polyethylene (PE)	design of the shield	
outer diameter of inner conductor of the wire insulation of cable sheath symmetrical tolerance of the outer diameter / of cable sheath material of the wire insulation polyethylene (PE)	core diameter	
of inner conductor of the wire insulation of cable sheath symmetrical tolerance of the outer diameter / of cable sheath material of the wire insulation of the wire insulation 0.5 mm 6.2 mm 0.3 mm polyethylene (PE)	 of AWG26 insulated conductor 	0.5 mm
 of the wire insulation of cable sheath symmetrical tolerance of the outer diameter / of cable sheath material of the wire insulation polyethylene (PE) 	outer diameter	
of cable sheath symmetrical tolerance of the outer diameter / of cable sheath material of the wire insulation 6.2 mm 0.3 mm polyethylene (PE)	 of inner conductor 	0.5 mm
symmetrical tolerance of the outer diameter / of cable sheath material • of the wire insulation 0.3 mm polyethylene (PE)	 of the wire insulation 	1 mm
sheath material ● of the wire insulation polyethylene (PE)	of cable sheath	6.2 mm
• of the wire insulation polyethylene (PE)		0.3 mm
	material	
• of cable sheath FRNC	 of the wire insulation 	polyethylene (PE)
	 of cable sheath 	FRNC

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color	
of the insulation of data wires	white/blue, white/orange, white/green, white/brown
of cable sheath	green
bending radius	04
with single bend / minimum permissible	31 mm
with multiple bends / minimum permissible	43.5 mm
weight per length	50 kg/km
ambient conditions	
ambient temperature	05 100 90
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 component	s / general
product feature	
halogen-free	Yes
• silicon-free	Yes
standards, specifications, approvals	
UL/ETL listing / 300 V Rating	No
UL/ETL style / 600 V Rating	Yes; E130266 AWM STYLE 21279
certificate of suitability	
 EAC approval 	Yes
UL approval	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	
• acc. to IEC 81346-2	WG
 according to IEC 81346-2:2019 	WGB
further information / internet-Links	
Internet-Link	
 to web page: selection aid TIA Selection Tool 	http://www.siemens.com/tia-selection-tool
 to website: Industrial communication 	http://www.siemens.com/simatic-net
• to website: Industry Mall	https://mall.industry.siemens.com
 to website: Information and Download Center 	http://www.siemens.com/industry/infocenter
 to website: Selection guide for cables and connectors 	https://sie.ag/2QdlxcP
• to website: Image database	http://automation.siemens.com/bilddb
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