SIEMENS

Data sheet

6XV1870-3QN45

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 45 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 45 m outbound of connections 2 attenuation factor per length 0.086 dB/m • 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 0.501 dB/m • at 600 MHz / maximum 0.501 dB/m • at 10 MHz / maximum 0.735 dB/m impedance		
wire length 45 m olectrical dat number of electrical connections 2 attenuation factor per length at 10 MHz / maximum 0.086 dB/m at 30 MHz / maximum 0.501 dB/m at 600 MHz / maximum 0.735 dB/m impedance at 10 MHz / maximum 0.735 dB/m inpedance at 11 MHz 100 MHz 100 Q at 11 MHz 600 MHz 100 Q at 10 MHz 600 MHz 100 Q at 10 MHz 600 MHz 100 Q e of the characteristic impedance at 10 MHz 100 15 % MHz 00 MHz / maximum 70 dB coupling loss / at 30 MHz 100 MHz / minimum 70 dB transfer impedance per length / at 10 MHz 10 mQ/m operating voltage 80 V RMS value 80 V NVP value in percent 80 % design of the shield Overlapped aluminum-clad foil, sheathed in a braided screen of tin-plated corper wires or of inner conductor 0.5 mm of inner conductor 0.5	-	
aldectrical data 2 number of electrical connections attenuation factor per length 2 • at 10 MHz / maximum 0.086 dB/m • at 10 MHz / maximum 0.28 dB/m • at 300 MHz / maximum 0.501 dB/m • at 300 MHz / maximum 0.735 dB/m impedance • at 10 MHz 100 MHz • at 10 MHz 000 MHz 100 Ω • of the characteristic impedance at 1 MHz 100 15 % • of the characteristic impedance at 10 MHz 10 mQ/m coupling loss / at 30 MHz 100 MHz / minimum 70 dB transfer impedance per length / at 10 MHz 10 mQ/m operating voltage 80 V NVP value in percent 80 % mechanical data Overlapped aluminum-clad foil, sheathed in a braided screen of tin-plated copper wires	-	
number of electrical connections 2 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 300 MHz / maximum 0.501 dB/m • at 600 MHz / maximum 0.735 dB/m impedance 100 Ω • at 10 MHz 100 MHz 100 Ω • at 10 MHz 600 MHz 100 Ω • elative symmetrical tolerance 10 % • of the characteristic impedance at 1 MHz 100 MHz 10 % MHz • of the characteristic impedance at 10 MHz 600 MHz 10 % • of the characteristic impedance at 10 MHz 600 MHz 10 % metraster impedance per length / at 10 MHz 10 mΩ/m transfer impedance per length / at 10 MHz 10 mΩ/m operating voltage 80 V • RMS value 80 V NVP value in percent 80 % mechanical data 0.5 mm number of electrical cores 8 design of the shield 0.5 mm outer diameter 0.5 mm • of inner conductor 0.5 mm • of wire insulation 1 mm • of cable sheath 6.2 mm symmetrical tolerance of the outer diameter / of cable sheath 0.3 mm symmetrical tolerance	wire length	45 m
attenuation factor per length 0.086 dB/m at 10 MHz / maximum 0.086 dB/m at 300 MHz / maximum 0.28 dB/m at 300 MHz / maximum 0.735 dB/m impedance 0.735 dB/m impedance 100 Ω at 10 MHz 100 MHz 100 Ω ist 10 MHz 500 MHz 10 % with characteristic impedance at 1 MHz 100 15 % MHz 0 0 % ist of the characteristic impedance at 10 MHz 600 10 % MHz 0 MHz / minimum oot the characteristic impedance at 10 MHz 600 M/m 10 % icoupling loss / at 30 MHz 100 MHz / minimum 20 MD/m operating voltage 80 V • RMS value 80 V NVP value in percent 80 V occre diameter 0.5 mm • of AWG26 insulated conductor 0.5 mm outer diameter 0.5 mm • of new c	electrical data	
• at 10 MHz / maximum0.086 dB/m• at 100 MHz / maximum0.28 dB/m• at 300 MHz / maximum0.501 dB/m• at 100 MHz / maximum0.735 dB/mimpedance	number of electrical connections	2
• at 100 MHz / maximum0.28 dB/m• at 300 MHz / maximum0.501 dB/m• at 600 MHz / maximum0.735 dB/mimpedance-• at 11 MHz 100 MHz100 Ω• at 10 MHz 600 MHz100 Ω• of the characteristic impedance at 1 MHz 10015 %MHz-• of the characteristic impedance at 1 MHz 10015 %MHz-• of the characteristic impedance at 10 MHz 60010 %MHz-• of the characteristic impedance at 10 MHz 60010 %MHz-• of the characteristic impedance at 10 MHz 60010 %MHz-• of the characteristic impedance at 10 MHz 60010 %MHz-• of the characteristic impedance at 10 MHz10 mQ/mloop resistance per length / at 10 MHz10 mQ/mloop resistance per length / maximum290 mQ/moperating voltage-• RMS value80 VNVP value in percent80 %mechanical data-rechanical data-• of AWG26 insulated conductor0.5 mm• of AWG26 insulated conductor0.5 mm• of inner conductor0.5 mm• of the wire insulation1 mm• of the wire insulation1 mm• of the wire insulation1 mm• of the wire insulation0.3 mm• of the wire insulation0 opletylene (PE)	attenuation factor per length	
• at 300 MHz / maximum0.501 dB/m• at 600 MHz / maximum0.735 dB/mimpedance-• at 1 MHz 100 MHz100 Ω• at 10 MHz 600 MHz100 Ωrelative symmetrical tolerance-• of the characteristic impedance at 1 MHz 10015 %MHz-• of the characteristic impedance at 10 MHz 60010 %MHz-• of the characteristic impedance at 10 MHz 60010 %MHz-• of the characteristic impedance at 10 MHz 6000 %MHz-• of the characteristic impedance at 10 MHz10 mΩ/mtransfer impedance per length / at 10 MHz10 mΩ/mtopperating voltage-• RMS value80 Voperating voltage-• RMS value80 Vtransfer impedance cores8design of the shieldOverlapped aluminum-clad foil, sheathed in a braided screen of tin- plated copper wirescore diameter-• of AWG26 insulated conductor0.5 mmouter diameter-• of inner conductor0.5 mm• of the wire insulation1 mm• of the wire insulation0.3 mm• for the wire insulation0.3 mm• of the wire insulation-• of t	• at 10 MHz / maximum	0.086 dB/m
• at 600 MHz / maximum0.735 dB/mimpedance• at 1 MHz 100 MHz100 Ω• at 10 MHz 600 MHz100 Ωrelative symmetrical tolerance• of the characteristic impedance at 1 MHz 100 MHz15 %• of the characteristic impedance at 10 MHz 600 MHz10 %• of the characteristic impedance at 10 MHz 600 MHz10 %• of the characteristic impedance at 10 MHz 600 MHz10 %• of the characteristic impedance at 10 MHz 600 MHz10 %• of the characteristic impedance at 10 MHz 600 MHz10 mΩ/mcoupling loss / at 30 MHz 100 MHz / minimum70 dBrearder impedance per length / at 10 MHz290 mΩ/moperating voltage290 mΩ/moperating voltage• eNMS value80 VNVP value in percent80 Vmechanical dataOverlapped aluminum-clad foil, sheathed in a braided screen of tim- pained screen of timeouter diameter• of AlWG26 insulated conductor0.5 mmouter diameter0.5 mm• of inner conductor0.5 mm• of the wire insulation6.2 mm• of the wire insulation6.2 mm• of the wire insulation6.3 mm• of the wire insulation0.3 mm• of the wire insulation90 yettylene (PE)	 at 100 MHz / maximum 	0.28 dB/m
impedance impedance • at 1 MHz 100 MHz 100 Ω • at 10 MHz 600 MHz 100 Ω relative symmetrical tolerance impedance at 1 MHz 100 • of the characteristic impedance at 1 0 MHz 600 15 % • of the characteristic impedance at 10 MHz 600 10 % MHz impedance per length / at 10 MHz 600 icoppies at 30 MHz 100 MHz / minimum 70 dB transfer impedance per length / at 10 MHz 10 mQ/m loop resistance per length / at 10 MHz 200 mQ/m operating voltage 80 V • RMS value 80 V NVV value in percent 80 % mechanical data 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 0.5 mm • of the wire insulation 1 mm • of cable sheath 6.2 mm symmetrical tolerance of the outer diameter / of cable 0.3 mm	• at 300 MHz / maximum	0.501 dB/m
• 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 % • of the characteristic impedance at 10 MHz 600 MHz 10 % • of the characteristic impedance at 10 MHz 600 MHz 10 mΩ/m 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 V 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 · of the wire insulation	• at 600 MHz / maximum	0.735 dB/m
• at 10 MHz100 Ωrelative symmetrical tolerance-• of the characteristic impedance at 1 MHz15 %• of the characteristic impedance at 10 MHz10 %• of the characteristic impedance at 10 MHz10 %• of the characteristic impedance at 10 MHz0 %• of the characteristic impedance at 10 MHz0 mΩ/m• coupling loss / at 30 MHz10 MHz• of the characteristic impedance per length / at 10 MHz0 mΩ/m• coupling loss / at 30 MHz0 MHz• of symmetrical per length / maximum290 mΩ/m• operating voltage80 V• RMS value80 VNVP value in percent80 V• of the shieldOverlapped aluminum-clad foil, sheathed in a braided screen of tin- plated copper wires• of AWG26 insulated conductor0.5 mm• of AWG26 insulated conductor0.5 mm• of the wire insulation1 mm• of cable sheath6.2 mm• of able sheath0.3 mm• of able sheath0.3 mm• of the wire insulation0.3 mm• of the wire insulation0.3 mm	impedance	
relative symmetrical tolerance	• at 1 MHz 100 MHz	100 Ω
• of the characteristic impedance at 1 MHz 100 MHz15 %• of the characteristic impedance at 10 MHz 600 MHz10 %• of the characteristic impedance at 10 MHz 600 MHz10 %coupling loss / at 30 MHz 100 MHz / minimum transfer impedance per length / at 10 MHz70 dBto per sistance per length / at 10 MHz10 mΩ/mloop resistance per length / maximum290 mΩ/moperating voltage • RMS value NVP value in percent80 VNVP value in percent80 Vmechanical dataOverlapped aluminum-clad foil, sheathed in a braided screen of tin- plated copper wirescore diameter • of AWG26 insulated conductor0.5 mmouter diameter0.5 mm• of the wire insulation1 mm• of cable sheath6.2 mmsymmetrical tolerance of the outer diameter / of cable sheath0.3 mm• of the wire insulation0.3 mm• of the wire insulation0.3 mm	• at 10 MHz 600 MHz	100 Ω
MHz 10 % • of the characteristic impedance at 10 MHz 600 10 % MHz 70 dB 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 80 V • RMS value 80 V NVP value in percent 80 % mechanical data Overlapped aluminum-clad foil, sheathed in a braided screen of timplated copper wires core diameter 0.5 mm • of inner conductor 0.5 mm • 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 • of the wire insulation polyethylene (PE)	relative symmetrical tolerance	
MHz Final Coupling loss / at 30 MHz 100 MHz / minimum 70 dB transfer impedance per length / at 10 MHz 10 mQ/m loop resistance per length / maximum 20 mQ/m operating voltage 80 V • RMS value 80 V NVP value in percent 80 % mechanical data Overlapped aluminum-clad foil, sheathed in a braided screen of tin- plated copper wires core diameter 0.5 mm • of AWG26 insulated conductor 0.5 mm outer diameter 0.5 mm • of the wire insulation 1 mm • of cable sheath 6.2 mm • of cable sheath 0.3 mm • of the wire insulation 0.3 mm • of the wire insulation polyethylene (PE)		15 %
transfer impedance per length / at 10 MHz 10 mΩ/m loop resistance per length / maximum 290 mΩ/m operating voltage 80 V • RMS value 80 V NVP value in percent 80 % mechanical data 0 number of electrical cores 8 design of the shield 0verlapped aluminum-clad foil, sheathed in a braided screen of tin-plated copper wires core diameter 0.5 mm 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 of the wire insulation polyethylene (PE)		10 %
loop resistance per length / maximum 290 mΩ/m operating voltage 80 V • RMS value 80 V NVP value in percent 80 % mechanical data Overlapped aluminum-clad foil, sheathed in a braided screen of tin-plated copper wires core diameter 0.5 mm of AWG26 insulated conductor 0.5 mm outer diameter 0.5 mm of the wire insulation 1 mm • of cable sheath 6.2 mm symmetrical tolerance of the outer diameter / of cable 0.3 mm sheath 0.3 mm	coupling loss / at 30 MHz 100 MHz / minimum	70 dB
operating voltage80 VRMS value80 VNVP value in percent80 %mechanical dataOverlapped aluminum-clad foil, sheathed in a braided screen of tin-plated copper wirescore diameter0.5 mmouter diameter0.5 mmo f AWG26 insulated conductor0.5 mmouter diameter0.5 mmof the wire insulation1 mmof cable sheath6.2 mmsymmetrical tolerance of the outer diameter / of cable0.3 mmof the wire insulation0.3 mm	transfer impedance per length / at 10 MHz	10 mΩ/m
RMS value80 VNVP value in percent80 %mechanical data80 %mumber of electrical cores8design of the shieldOverlapped aluminum-clad foil, sheathed in a braided screen of tin- plated copper wirescore diameter0.5 mmouter diameter0.5 mmouter diameter0.5 mmof fhe wire insulation1 mmof cable sheath6.2 mmsymmetrical tolerance of the outer diameter / of cable sheath0.3 mmof the wire insulation0.5 mm	loop resistance per length / maximum	290 mΩ/m
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 playethylene (PE)	operating voltage	
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 0.5 mm outer diameter 0.5 mm outer diameter 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 outer rial of the wire insulation	RMS value	80 V
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 0.5 mm outer diameter 0.5 mm of the wire insulation 0.5 mm of cable sheath 6.2 mm symmetrical tolerance of the outer diameter / of cable 0.3 mm material of the wire insulation	NVP value in percent	80 %
design of the shieldOverlapped aluminum-clad foil, sheathed in a braided screen of tin- plated copper wirescore diameter0.5 mmouter diameter0.5 mmof fhe wire insulation0.5 mmof cable sheath0.5 mmof cable sheath6.2 mmsymmetrical tolerance of the outer diameter / of cable sheath0.3 mmof the wire insulation0.3 mmof the wire insulation0.9 mmof cable sheath0.9 mmsymmetrical tolerance of the outer diameter / of cable sheath0.9 mmof the wire insulation0.9 mmof the wire insulationpolyethylene (PE)	mechanical data	
core diameter plated copper wires • of AWG26 insulated conductor 0.5 mm outer diameter 0.5 mm • 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 0.3 mm sheath 0.3 mm material	number of electrical cores	8
• of AWG26 insulated conductor0.5 mmouter diameter-• of inner conductor0.5 mm• of the wire insulation1 mm• of cable sheath6.2 mmsymmetrical tolerance of the outer diameter / of cable sheath0.3 mm• of the wire insulationpolyethylene (PE)	design of the shield	
outer diameter	core diameter	
 of inner conductor of the wire insulation of cable sheath of the outer diameter / of cable o.3 mm of the wire insulation of the wire insulation polyethylene (PE) 	 of AWG26 insulated conductor 	0.5 mm
of the wire insulation of cable sheath 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 polyethylene (PE) 	 of inner conductor 	0.5 mm
symmetrical tolerance of the outer diameter / of cable 0.3 mm naterial of the wire insulation polyethylene (PE)	 of the wire insulation 	1 mm
sheath 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

color		
 of the insulation of data wires 	white/blue white/orange white/orange white/brown	
 of the insulation of data wires of cable sheath 	white/blue, white/orange, white/green, white/brown	
• of cable sheath bending radius	green	
with single bend / minimum permissible	31 mm	
with single bend / minimum permissible with multiple bends / minimum permissible	43.5 mm	
weight per length	50 kg/km	
	JU KY/KII	
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		
product features		
halogen-free	Yes	
silicon-free	Yes	
standards, specifications, approvals		
	No	
UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating	Yes; E130266 AWM STYLE 21279	
certificate of suitability	165, E150200 AWW STILE 21279	
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		
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