SIEMENS

Data sheet 6XV1870-3QE30

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 0.3 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	0.3 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

bending radius with single bend / minimum permissible 43.5 mm weight per length 50 kg/km ambient temperature during operation -25 +80 °C -4 during installation -25 +80 °C -4 during installation -25 +80 °C -4 during installation -10 -10 fame resistant according to IEC 60332-1-2, smoke density according to IEC 61034 fame resistant according to IEC 60332-1-2, smoke density according to IEC 61034 class of burning behaviour / according to EN 13501-6 chemical resistance - to mineral oil - to grease radiological resistance / to UV radiation protection class IP product features, product functions, product components / general product features, product functions, product components / general product feature - halogen-free - yes standards, specifications, approvals UL/ETL isting / 300 V Rating Ves; E130266 AWM STYLE 21279 certificate of suitability - EAC approval - UL approval - Ves - RAHS conformity Yes standards, specifications association - American Bureau of Shipping Europe Ltd. (ABS) - French marine classification sosociation - American Bureau of Shipping Europe Ltd. (ABS) - French marine classification sosociation - American Bureau of Shipping Europe Ltd. (ABS) - French marine classification sosociation - American Bureau of Shipping Europe Ltd. (ABS) - French marine classification sosociation - American Bureau of Shipping Europe Ltd. (ABS) - French marine classification sosociation - American Bureau of Shipping Europe Ltd. (ABS) - French marine classification sosociation - American Bureau of Shipping Europe Ltd. (ABS) - French marine classification society (BV) - Del Norsek Vertias (DIN) - Del Norsek Vertias (DIN) - Del Norsek Vertias (DIN) - No - Ulpost Rejets Statkow (PRS)	of cable sheath	green
with single bend / minimum permissible weight per length weight per length weight per length subject to conditions ambient conditions ambient emperature during storage during storage during installation - 225 +80 °C - 25 +80 °C during installation - 225 +80 °C - 1 In fixed installation -40 °C to 80 °C In fixed installation -40 °C to 80 °C fire behavior fire behavior fire behavior fire behavior fire behavior or district esistance - to mineral oil or grease Or district esistance - to mineral oil or grease Conditional resistance redictional resistance - to mineral oil or grease Conditional resistance product features, product functions, product components / general halogen-free silicon-free silicon-free silicon-free * yes * salicon-free * ye		
weight per length so kg/km milliont conditions ambient complete temperature • during operation • during storage • during transport • during installation • note fire behavior class of burning behaviour / according to EN 13501-6 chemical resistance • to mineral oil • to grease radiological resistance / to UV radiation protection class if Product functions, product components / general product feature • halogen-free • halogen-free • silicon-free • silicon-free • silicon-free • solicon-free • s	-	31 mm
weight per length smblent conditions ambient temperature • during preadure • during storage • during installation • outring installation • outr	•	43.5 mm
amblent conditions amblent temperature • during operation • during storage • during transport • during installation • during installation • during installation • otoe In fixed installation -40 °C to 80 °C fire behavior fire behavior 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 chemical resistance • to mineral oil • to grease radiological resistance / to UV radiation protection class IP product feature • halogen-free • silicon-free • silicon-free • silicon-free • Specifications, approvals UL/ETL Isting / 300 V Rating UL/ETL Isting / 300 V Rating Ves; E130266 AWM STYLE 21279 certificate of suitability • EAC approval • UL approval • RoHS conformity Yes standard for structured cabling American Bureau of Shipping Europe Ltd. (ABS) • Prench marine classification association • American Bureau of Shipping Europe Ltd. (ABS) • Prench marine classification association • American Bureau of Shipping Europe Ltd. (ABS) • Pench marine classification society (BV) • Det Norske Verlass (DNY) • Det Norske Verlass (DNY) • Det Norske Verlass (DNY) • Polski Rejestr Statkow (PRS)		
ambient temperature • during operation • during storage • during installation • during installation • concept of the chavior class of burning behaviour / according to EN 13501-6 chemical resistance • to mineral oil • to grease radiological resistance / to UV radiation protection class IP product features, product functions, product components / general product features, product functions, product components / general product seatures, product functions, product components / general product seatures, product functions, product components / general product features, product functions, product functions, product functions, product features, product functions, product features, product functions, product features,		
 during operation -25 +80 °C during storage -25 +80 °C during transport -25 +80 °C during installation -25 +80 °C 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 chemical resistance io innieral oil io grease conditional resistance in fixed installation -40 °C to 80 °C floring asses radiological resistance / to UV radiation not resistant product features, product functions, product components / general product features salicon-free Yes standard's, specifications, approvals ULETL listing / 300 V Rating No ULETL style / 600 V Rating Yes Eacachdraws, specification spec		
 during storage during transport during installation during installation note In fixed installation +0 °C to 80 °C flame resistant according to IEC 60332-1-2, smoke density according to IEC 61034 class of burning behaviour / according to EN 13501-6 chemical resistance to mineral oil to grease radiological resistance / to UV radiation protection class IP product features, product functions, product components / general product feature salicon-free silicon-free silicon-free yes standard fo, specifications, approvals UL/ETL style / 600 V Rating Ves eAC approval PCAC approval PCAC approval PCAC approval PCAC approval PCAC approval PCAC approval AROHS conformity Standard for structured cabiling American Bureau of Shipping Europe Ltd. (ABS) French marine classification society (BV) No PCH Norske Veritas (DNV) PCE Norske Veritas (DNV) No PCE Norske Veritas (DNV) No Polski Rejestr Stalkow (PRS) No Polski Rejestr Stalkow (PRS) No 	·	-25 +80 °C
 during transport 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 class of burning behaviour / according to EN 13501-6 chemical resistance to mineral oil oil resistant according to IEC 60811-2-1 (4 h / 70°C) conditional resistance not resistant product features, product functions, product components / general product features, product functions, product components / general product features, 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 Ves UL approval ReNS conformity Yes standard for structured cabling Armerican Bureau of Shipping Europe Ltd. (ABS) French marine classification society (BV) Det Norske Veritas (DNV) Det Norske Veritas (DNV) Oermanische Lloyd (GL) No Eloyds Register of Shipping (LRS) Nippon Kajii Kyokai (NK) No Polski Rejestr Statkow (PRS)		
 during installation 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 chemical resistance to mineral oil to grease Conditional resistance radiological resistance / to UV radiation protection class IP product features, product functions, product components / general product feature halogen-free silicon-free yes standards, specifications, approvals UL/ETL Isting / 300 V Rating Ves; E130266 AWM STYLE 21279 certificate of suitability EAC approval Ves ROHS conformity yes standard for structured cabling American Bureau of Shipping Europe Ltd. (ABS) French marine classification society (BV) Det Norske Veritas (DNV) Oe Germanische Lloyd (GL) No Olippon Kajii Kyokai (NK) No Ploski Rejestr Statkow (PRS) No Polski Rejestr Statkow (PRS) 		
• note In fixed installation -40 °C to 80 °C		
fire behavior class of burning behaviour / according to EN 13501-6 chemical resistance • to mineral oil • to grease Conditional resistance radiological resistance / to UV radiation protection class IP product feature • halogen-free • silicon-free • silicon-free • silicon-free • soll version of suitability EAC approval • Lo approval • RoHS conformity standard for structured cabling American Bureau of Shipping Europe Ltd. (ABS) • French marine classification society (BV) • Det Norske Veritas (DNV) • Det Norske Veritas (DNV) • No • Lloyds Register of Shipping (LRS) • No • Polski Rejestr Statkow (PRS)	-	
class of burning behaviour / according to EN 13501-6 chemical resistance • to mineral oil • to grease radiological resistance / to UV radiation protection class IP product features, product functions, product components / general product feature • halogen-free • silicon-free **Standards, specifications, approvals** UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating • EAC approval • UL approval • ROHS conformity • 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) • Det Norske Veritas (DNV) • Loyds Register of Shipping (LRS) • Nippon Kaiji Kyokai (NK) • Polski Rejestr Statkow (PRS)		
chemical resistance • to mineral oil • to grease Conditional resistance radiological resistance / to UV radiation protection class IP product features, product functions, product components / general product feature • halogen-free • silicon-free • silicon-free • silicon-free Ves standards, specifications, approvals UL/ETL listing / 300 V Rating Ves; E130266 AWM STYLE 21279 certificate of suitability • EAC approval • UL 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) • Det Norske Veritas (DNV) • No • Nippon Kaiji Kyokai (NK) • No • Nolski Rejestr Statkow (PRS)		
to mineral oil to grease radiological resistance / to UV radiation protection class IP product features, product functions, product components / general product features, product functions, product components / general product feature halogen-free silicon-free ves standards, specifications, approvals UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating Ves; E130266 AWM STYLE 21279 certificate of suitability EAC approval Roh's conformity Standard for structured cabling Marine classification association American Bureau of Shipping Europe Ltd. (ABS) French marine classification society (BV) Germanische Lloyd (GL) Certificate of Shipping (LRS) No	class of burning behaviour / according to EN 13501-6	Eca
• 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 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 • 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 • Nippon Kaiji Kyokai (NK) No • Polski Rejestr Statkow (PRS) No	chemical resistance	
radiological resistance / to UV radiation not resistant protection class IP IP20 product features, product functions, product components / general product feature	• to mineral oil	oil resistant according to IEC 60811-2-1 (4 h / 70°C)
product features, product functions, product components / general product feature	• to grease	Conditional resistance
product feature	radiological resistance / to UV radiation	not resistant
product feature • halogen-free • silicon-free * Yes • silicon-free * Yes * standards, specifications, approvals UL/ETL listing / 300 V Rating No UL/ETL style / 600 V Rating Certificate of suitability • EAC approval • UL approval • UL approval • RoHS conformity * 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)	protection class IP	IP20
 halogen-free silicon-free Yes standards, specifications, approvals UL/ETL listing / 300 V Rating No UL/ETL style / 600 V Rating Certificate of suitability EAC approval UL approval Ves UL approval RoHS conformity Standard for structured cabling 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) 	product features, product functions, product components / gen	eral
• 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 • 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 • Nippon Kaiji Kyokai (NK) No • Polski Rejestr Statkow (PRS) No	product feature	
Standards, specifications, approvals UL/ETL listing / 300 V Rating Ves; E130266 AWM STYLE 21279 certificate of suitability EAC approval UL approval ROHS conformity Standard for structured cabling American Bureau of Shipping Europe Ltd. (ABS) French marine classification society (BV) Det Norske Veritas (DNV) Germanische Lloyd (GL) Lloyds Register of Shipping (LRS) No No No Polski Rejestr Statkow (PRS)	• halogen-free	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 American Bureau of Shipping Europe Ltd. (ABS) French marine classification society (BV) Det Norske Veritas (DNV) Germanische Lloyd (GL) Lloyds Register of Shipping (LRS) No No Polski Rejestr Statkow (PRS)	• silicon-free	Yes
UL/ETL style / 600 V Rating certificate of suitability EAC approval UL approval RoHS conformity Yes standard for structured cabling American Bureau of Shipping Europe Ltd. (ABS) French marine classification society (BV) Det Norske Veritas (DNV) Germanische Lloyd (GL) Lloyds Register of Shipping (LRS) No No Polski Rejestr Statkow (PRS) No	standards, specifications, approvals	
certificate of suitability EAC approval UL approval RoHS conformity Yes standard for structured cabling Cat6A 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) No No Polski Rejestr Statkow (PRS)	UL/ETL listing / 300 V Rating	No
EAC approval UL approval RoHS conformity Yes standard for structured cabling Cat6A 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) No No No No No Polski Rejestr Statkow (PRS)	UL/ETL style / 600 V Rating	Yes; E130266 AWM STYLE 21279
UL approval ROHS conformity Yes standard for structured cabling Cat6A 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) No No No Polski Rejestr Statkow (PRS) No No	certificate of suitability	
RoHS conformity Standard for structured cabling Cat6A 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) No No No Polski Rejestr Statkow (PRS) No	 EAC approval 	Yes
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)	UL approval	Yes
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)	RoHS conformity	Yes
 American Bureau of Shipping Europe Ltd. (ABS) French marine classification society (BV) No Det Norske Veritas (DNV) Germanische Lloyd (GL) Lloyds Register of Shipping (LRS) No Nippon Kaiji Kyokai (NK) Polski Rejestr Statkow (PRS) 	standard for structured cabling	Cat6A
 French marine classification society (BV) Det Norske Veritas (DNV) No Germanische Lloyd (GL) Lloyds Register of Shipping (LRS) No Nippon Kaiji Kyokai (NK) Polski Rejestr Statkow (PRS) No 	Marine classification association	
 Det Norske Veritas (DNV) Germanische Lloyd (GL) Lloyds Register of Shipping (LRS) No Nippon Kaiji Kyokai (NK) Polski Rejestr Statkow (PRS) No 	 American Bureau of Shipping Europe Ltd. (ABS) 	No
 Germanische Lloyd (GL) Lloyds Register of Shipping (LRS) Nippon Kaiji Kyokai (NK) Polski Rejestr Statkow (PRS) No 	 French marine classification society (BV) 	No
 Lloyds Register of Shipping (LRS) Nippon Kaiji Kyokai (NK) Polski Rejestr Statkow (PRS) No 	 Det Norske Veritas (DNV) 	No
 Nippon Kaiji Kyokai (NK) Polski Rejestr Statkow (PRS) No 	Germanische Lloyd (GL)	No
Polski Rejestr Statkow (PRS) No	 Lloyds Register of Shipping (LRS) 	No
	 Nippon Kaiji Kyokai (NK) 	No
reference code	Polski Rejestr Statkow (PRS)	No
.5.5.5.6.5	reference code	
• according to IEC 81346-2 WG	according to IEC 81346-2	WG
• according to IEC 81346-2:2019 WGB	• according to IEC 81346-2:2019	WGB
further information / internet links	further information / internet links	
internet link	internet link	
• to web page: selection aid TIA Selection Tool http://www.siemens.com/tia-selection-tool	 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: Industrial communication	http://www.siemens.com/simatic-net
• to website: Industry Mall https://mall.industry.siemens.com	• to website: Industry Mall	https://mall.industry.siemens.com
• to website: Information and Download Center http://www.siemens.com/industry/infocenter	• 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: Selection guide for cables and connectors	https://sie.ag/2QdlxcP
• to website: Image database http://automation.siemens.com/bilddb	• to website: Image database	http://automation.siemens.com/bilddb
• to website: CAx-Download-Manager http://www.siemens.com/cax	• to website: CAx-Download-Manager	http://www.siemens.com/cax
• to website: Industry Online Support https://support.industry.siemens.com	• to website: Industry Online Support	https://support.industry.siemens.com

last modified: 2/14/2023 🖸

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Siemens:

6XV18703QE30