## **SIEMENS**

Data sheet 6XV1878-2G

## product type designation

product description



## IE TP Ground Cable 4x2 (AWG 24, Type C)

Shielded TP installation cable (8-core), sold by the meter, unassembled

IE TP ground cable 4x2 underground cable, CAT6A, 8-core, shielded, cable for Connection to IE FC RJ45 plug 4x2, AWG24, Sold by the meter delivery unit max. 1000 m minimum order quantity 20 m.

avitability for upo	Chandard askle with risid source for fact, normal and installation syldesus
suitability for use	Standard cable with rigid cores for fast, permanent installation outdoors and in the ground
cable designation	2YH(ST)CY2Y 4X2X0.5/1.0 BK
electrical data	
attenuation factor per length	
• at 10 MHz / maximum	0.058 dB/m
• at 100 MHz / maximum	0.191 dB/m
• at 250 MHz / maximum	0.311 dB/m
• at 300 MHz / maximum	0.343 dB/m
• at 500 MHz / maximum	0.453 dB/m
impedance	
• at 1 MHz 100 MHz	100 Ω
near-end crosstalk per length	
• at 1 MHz 100 MHz	0.453 dB/m
• at 1 MHz 250 MHz	0.393 dB/m
• at 1 MHz 300 MHz	0.381 dB/m
• at 1 MHz 500 MHz	0.348 dB/m
transfer impedance per length / at 10 MHz	20 mΩ/m
loop resistance per length / maximum	190 mΩ/m
insulation resistance coefficient	5000 GΩ·m
operating voltage	
RMS value	80 V
NVP value in percent	66 %
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
type of electrical connection / FastConnect	Yes
core diameter	
of AWG24 insulated conductor	0.51 mm
outer diameter	
• of inner conductor	0.51 mm
<ul> <li>of the wire insulation</li> </ul>	1 mm
<ul> <li>of the inner sheath of the cable</li> </ul>	6.1 mm
<ul> <li>of cable sheath</li> </ul>	10.5 mm
of cable sheath / note	IE FC standard cable GP 4x2 (diameter 8 mm) with additional PE outer cover (diameter 10.5 mm)
symmetrical tolerance of the outer diameter / of cable	0.5 mm

sheath	
material	
of the wire insulation	nolyothylana (DE)
	polyethylene (PE)
of the inner sheath of the cable	FRNC
of cable sheath	PVC
color	
<ul> <li>of the insulation of data wires</li> </ul>	white-blue/blue, white-orange/orange, white-green/green, white-
	brown/brown
of cable sheath	green/black
bending radius	
<ul> <li>with single bend / minimum permissible</li> </ul>	42 mm
with multiple bends / minimum permissible	84 mm
tensile load / maximum	100 N
weight per length	107 kg/km
ambient conditions	
ambient temperature	
during operation	-40 +80 °C
during storage	-40 +80 °C
during transport	-40 +80 °C
during transport     during installation	-40 +80 °C
• note	In fixed installation -40 °C to 85 °C
class of burning behaviour / according to EN 13501-6	Fca
chemical resistance	Desistant
• to water	Resistant
radiological resistance / to UV radiation	resistant
product features, product functions, product components	/ general
product feature	
<ul><li>halogen-free</li></ul>	No
• silicon-free	Yes
wire length / for Industrial Ethernet	
<ul><li>with 100BaseTX</li></ul>	90 m
<ul><li>with 1000BaseT</li></ul>	90 m
• for 10GBase T	70 m
standards, specifications, approvals	
UL/ETL listing / 300 V Rating	No
UL/ETL style / 600 V Rating	No
· · · · · · · · · · · · · · · · · · ·	INO
certificate of suitability	Vac
EAC approval	Yes
CE marking	Voc
_	Yes
RoHS conformity	Yes Yes
RoHS conformity  product conformity	Yes
RoHS conformity  product conformity  ANSI/TIA-EIA 568-B.2 Cat.5e	Yes
<ul> <li>RoHS conformity</li> <li>product conformity</li> <li>ANSI/TIA-EIA 568-B.2 Cat.5e</li> <li>IEC 61784-5-2-CP 2/2 (Ethernet/IP)</li> </ul>	Yes Yes Yes
RoHS conformity  product conformity  ANSI/TIA-EIA 568-B.2 Cat.5e  IEC 61784-5-2-CP 2/2 (Ethernet/IP)  standard for structured cabling	Yes
RoHS conformity  product conformity  ANSI/TIA-EIA 568-B.2 Cat.5e  IEC 61784-5-2-CP 2/2 (Ethernet/IP)  standard for structured cabling  Marine classification association	Yes Yes Yes
RoHS conformity  product conformity  ANSI/TIA-EIA 568-B.2 Cat.5e  IEC 61784-5-2-CP 2/2 (Ethernet/IP)  standard for structured cabling	Yes Yes Yes
RoHS conformity  product conformity  ANSI/TIA-EIA 568-B.2 Cat.5e  IEC 61784-5-2-CP 2/2 (Ethernet/IP)  standard for structured cabling  Marine classification association	Yes Yes Yes Cat6A
RoHS conformity  product conformity  ANSI/TIA-EIA 568-B.2 Cat.5e  IEC 61784-5-2-CP 2/2 (Ethernet/IP)  standard for structured cabling  Marine classification association  American Bureau of Shipping Europe Ltd. (ABS)	Yes Yes Yes Cat6A No
RoHS conformity  product conformity  ANSI/TIA-EIA 568-B.2 Cat.5e  IEC 61784-5-2-CP 2/2 (Ethernet/IP)  standard for structured cabling  Marine classification association  American Bureau of Shipping Europe Ltd. (ABS)  French marine classification society (BV)	Yes Yes Yes Cat6A No No
RoHS conformity  product conformity  ANSI/TIA-EIA 568-B.2 Cat.5e  IEC 61784-5-2-CP 2/2 (Ethernet/IP)  standard for structured cabling  Marine classification association  American Bureau of Shipping Europe Ltd. (ABS)  French marine classification society (BV)  Det Norske Veritas (DNV)	Yes Yes Yes Cat6A No No
RoHS conformity  product conformity  ANSI/TIA-EIA 568-B.2 Cat.5e  IEC 61784-5-2-CP 2/2 (Ethernet/IP)  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)	Yes Yes Yes Cat6A  No No No No
RoHS conformity  product conformity  ANSI/TIA-EIA 568-B.2 Cat.5e  IEC 61784-5-2-CP 2/2 (Ethernet/IP)  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)	Yes Yes Yes Cat6A  No No No No No No
RoHS conformity  product conformity  ANSI/TIA-EIA 568-B.2 Cat.5e  IEC 61784-5-2-CP 2/2 (Ethernet/IP)  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)	Yes Yes Yes Cat6A  No No No No No No No
RoHS conformity  product conformity  ANSI/TIA-EIA 568-B.2 Cat.5e  IEC 61784-5-2-CP 2/2 (Ethernet/IP)  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)  reference code	Yes Yes Yes Cat6A  No
RoHS conformity  product conformity  ANSI/TIA-EIA 568-B.2 Cat.5e  IEC 61784-5-2-CP 2/2 (Ethernet/IP)  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)  reference code  according to IEC 81346-2	Yes Yes Yes Cat6A  No
RoHS conformity  product conformity  ANSI/TIA-EIA 568-B.2 Cat.5e  IEC 61784-5-2-CP 2/2 (Ethernet/IP)  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)  reference code  according to IEC 81346-2  according to IEC 81346-2:2019	Yes Yes Yes Cat6A  No
RoHS conformity  product conformity  ANSI/TIA-EIA 568-B.2 Cat.5e  IEC 61784-5-2-CP 2/2 (Ethernet/IP)  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)  reference code  according to IEC 81346-2  according to IEC 81346-2:2019  further information / internet-Links	Yes Yes Yes Cat6A  No
RoHS conformity  product conformity  ANSI/TIA-EIA 568-B.2 Cat.5e  IEC 61784-5-2-CP 2/2 (Ethernet/IP)  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)  reference code  according to IEC 81346-2  according to IEC 81346-2:2019  further information / internet-Links  Internet-Link	Yes Yes Yes Cat6A  No No No No No No No Wo Wo Wo Wo Wo No
RoHS conformity  product conformity  ANSI/TIA-EIA 568-B.2 Cat.5e  IEC 61784-5-2-CP 2/2 (Ethernet/IP)  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)  reference code  according to IEC 81346-2  according to IEC 81346-2:2019  further information / internet-Links  Internet-Link  to web page: selection aid TIA Selection Tool	Yes Yes Yes Cat6A  No No No No No No No WG WGB
RoHS conformity  product conformity  ANSI/TIA-EIA 568-B.2 Cat.5e  IEC 61784-5-2-CP 2/2 (Ethernet/IP)  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)  reference code  according to IEC 81346-2  according to IEC 81346-2:2019  further information / internet-Links  Internet-Link	Yes Yes Yes Cat6A  No No No No No No No Wo Wo Wo Wo Wo No

to website: Information and Download Centerto website: Selection guide for cables and

connectors

• to website: Image database

to website: CAx-Download-Managerto website: Industry Online Support

last modified:

http://www.siemens.com/industry/infocenter

https://sie.ag/2QdlxcP

http://automation.siemens.com/bilddb

http://www.siemens.com/cax

https://support.industry.siemens.com

10/30/2021