SIEMENS

Data sheet 6XV1878-2B

product type designation

product description



IE FC TP Flexible Cable GP 4x2 (AWG 24, Type C)

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

Industrial Ethernet FastConnect TP flexible cable GP 4x 2, TP installation CAT6A cable for connection to IE FC RJ45 plug 4x 2, AWG24, sold by the meter, delivery unit max. 1000 m minimum order quantity 20 m.

| suitability for use | Flexible cable for quick assembly, for occasionally moving machine parts |
|---|--|
| cable designation | LI02YSH (ST) CY 4x2x0.6/1.05- 100 GN |
| electrical data | |
| attenuation factor per length | |
| • at 10 MHz / maximum | 0.089 dB/m |
| • at 100 MHz / maximum | 0.287 dB/m |
| • at 250 MHz / maximum | 0.466 dB/m |
| • at 300 MHz / maximum | 0.514 dB/m |
| at 500 MHz / maximum | 0.679 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 |
| coupling loss / at 30 MHz 100 MHz / minimum | 80 dB |
| transfer impedance per length / at 10 MHz | 20 mΩ/m |
| loop resistance per length / maximum | 180 mΩ/m |
| insulation resistance coefficient | 5000 GΩ·m |
| operating voltage | |
| RMS value | 80 V |
| NVP value in percent | 68 % |
| 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 | 0.6 mm |
| outer diameter | |
| of inner conductor | 0.6 mm |
| of the wire insulation | 1.05 mm |
| of the inner sheath of the cable | 6.4 mm |
| of cable sheath | 8 mm |
| symmetrical tolerance of the outer diameter / of cable sheath | 0.2 mm |
| material | |
| of the wire insulation | polyethylene (PE) |

| of the inner sheath of the cable | FRNC |
|---|--|
| of cable sheath | PVC |
| color | |
| of the insulation of data wires | white-blue/blue, white-orange/orange, white-green/green, white-brown/brown |
| of cable sheath | green |
| bending radius | |
| - | 24 mm |
| with single bend / minimum permissible | |
| with multiple bends / minimum permissible | 40 mm |
| tensile load / maximum | 100 N |
| weight per length | 86 kg/km |
| ambient conditions | |
| ambient temperature | |
| during operation | -40 +80 °C |
| during storage | -40 +80 °C |
| during transport | -40 +80 °C |
| during installation | -40 +80 °C |
| fire behavior | flame resistant according to IEC 60332-3-24 (Category C) |
| 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) |
| | Conditional resistance |
| • to grease | |
| • to water | conditional resistance |
| radiological resistance / to UV radiation | resistant |
| product features, product functions, product components / ge | neral |
| product feature | |
| halogen-free | No |
| • silicon-free | Yes |
| wire length / for Industrial Ethernet | |
| with 100BaseTX | 80 m |
| ● with 1000BaseT | 80 m |
| ● for 10GBase T | 70 m |
| atandarda anasifiaatisma ammada | |
| standards, specifications, approvals | |
| standards, specifications, approvals UL/ETL listing / 300 V Rating | Yes: c(FTL)us_CMG |
| UL/ETL listing / 300 V Rating | Yes; c(ETL)us, CMG |
| UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating | Yes; c(ETL)us, CMG No |
| UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating certificate of suitability | No |
| UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating certificate of suitability • EAC approval | No Yes |
| UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating certificate of suitability • EAC approval • CE marking | No Yes Yes |
| UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating certificate of suitability • EAC approval • CE marking • RoHS conformity | No Yes |
| UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating certificate of suitability • EAC approval • CE marking | No Yes Yes |
| UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating certificate of suitability • EAC approval • CE marking • RoHS conformity | No Yes Yes |
| UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating certificate of suitability • EAC approval • CE marking • RoHS conformity product conformity | Yes Yes Yes |
| UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating certificate of suitability • EAC approval • CE marking • RoHS conformity product conformity • ANSI/TIA-EIA 568-B.2 Cat.5e | Yes Yes Yes Yes |
| UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating certificate of suitability | Yes Yes Yes Yes Yes |
| UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating certificate of suitability • EAC approval • CE marking • 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 Yes Yes |
| UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating certificate of suitability EAC approval CE marking 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 Yes Yes Cat6A |
| UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating certificate of suitability EAC approval CE marking 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 Yes Yes Cat6A |
| UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating certificate of suitability EAC approval CE marking 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 Yes Cat6A No No |
| UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating certificate of suitability EAC approval CE marking 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) | No Yes Yes Yes Yes Cat6A No No No No |
| UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating certificate of suitability EAC approval CE marking 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) | No Yes Yes Yes Yes Yes Cat6A No No No No No No |
| UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating certificate of suitability EAC approval CE marking 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) | No Yes Yes Yes Yes Cat6A No |
| UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating certificate of suitability EAC approval CE marking 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) | No Yes Yes Yes Yes Yes Cat6A No No No No No No |
| UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating certificate of suitability EAC approval CE marking 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 | No Yes Yes Yes Yes Yes Cat6A No |
| UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating certificate of suitability EAC approval CE marking RoHS 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 | No Yes Yes Yes Yes Yes Cat6A No |
| UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating certificate of suitability EAC approval CE marking 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 | No Yes Yes Yes Yes Yes Cat6A No |
| UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating certificate of suitability EAC approval CE marking RoHS 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 | No Yes Yes Yes Yes Yes Cat6A No |
| UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating certificate of suitability EAC approval CE marking 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 | No Yes Yes Yes Yes Yes Cat6A No |
| UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating certificate of suitability EAC approval CE marking 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 | No Yes Yes Yes Yes Yes Cat6A No |
| UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating certificate of suitability EAC approval CE marking 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 Yes Yes Cat6A No No No No No No No Wo Wo Wo Wo Wo Wo Wo Wo Wo |
| UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating certificate of suitability EAC approval CE marking 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 website: Selection guide for cables and connectors | Yes Yes Yes Yes Yes Cat6A No No No No No No No WG WG WGB |
| UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating certificate of suitability EAC approval CE marking 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 website: Selection guide for cables and connectors to web page: selection aid TIA Selection Tool | Yes Yes Yes Yes Yes Cat6A No No No No No No No WG WG WGB https://support.industry.siemens.com/cs/ww/en/view/109766358 https://www.siemens.com/tstcloud |
| UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating certificate of suitability EAC approval CE marking 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 website: Selection guide for cables and connectors to web page: SiePortal | Yes Yes Yes Yes Yes Cat6A No |

• 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. In order to protect plants, systems, machines and networks against cyber threats, it is necessary to implement – and continuously maintain – a holistic, state-of-the-art industrial cybersecurity concept. Siemens' products and solutions constitute one element of such a concept. Customers are responsible for preventing unauthorized access to their plants, systems, machines and networks. Such systems, machines and components should only be connected to an enterprise network or the internet if and to the extent such a connection is necessary and only when appropriate security measures (e.g. firewalls and/or network segmentation) are in place. For additional information on industrial cybersecurity measures that may be implemented, please visit www.siemens.com/cybersecurity-industry. Siemens' products and solutions undergo continuous development to make them more secure. Siemens strongly recommends that product updates are applied as soon as they are available and that the latest product versions are used. Use of product versions that are no longer supported, and failure to apply the latest updates may increase customer's exposure to cyber threats. To stay informed about product updates, subscribe to the Siemens Industrial Cybersecurity RSS Feed under https://www.siemens.com/cert. (V4.7)

Approvals / Certificates

General Product Approval

Test Certificates

Manufacturer Declaration



Declaration of Conformity





Special Test Certificate

Environment

Industrial Communication

Confirmation

PROFINET

last modified:

8/8/2024