

PRODUCTPROFILE

Catalogue number: 047A0025

Partnumber: 776476

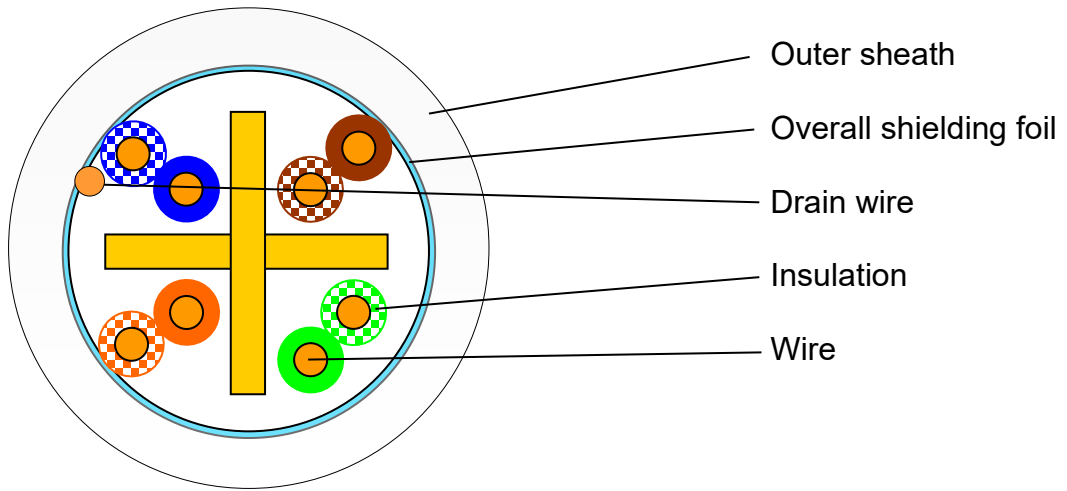
Related documents:

DS_FUTP_6A4PR23LSOH_DC_OE Kabeldatenblatt

TWISTED PAIR CABLE

F/UTP Cat.6a 500 MHz 4x2xAWG 23/1 FRNC DCa

047A0025



Standards

ISO/IEC 11801 2nd edition ; IEC 61156-5 Ed. 3.0 ; EN 50173 ; EN 50174-2 ; EN 50288-5-1 ; EN 50288-10 ; TIA/EIA-568-B.2-10

Applications

IEEE 802.3 : Ethernet 10Base-T ; Fast Ethernet 100Base-T ; Gigabit Ethernet 1000Base-T ; 10GBase-T
 IEEE 802.5 : ISDN ; FDDI ; ATM ; Cable sharing
 IEEE 802.3at : PoE, PoE+ suitable

Structure

| | |
|----------------------------|-------------------------|
| Conductor | AWG 23/1, bare |
| Insulation | SFS-PE |
| Core diameter ¹ | .12 ± 0.02 mm |
| Colour code | IEC 708-1 |
| pair shielding- | |
| Overall shielding | Aluminium compound foil |
| Outer sheath halogen-free | compound (FRNC) |
| Sheath colour orange | white |
| Outer diameter | 7.6 ± 0.2 mm |

Mechanical properties

| | |
|--|--------------------|
| -Min. bending radius fixed (static): | 4 x outer diameter |
| -Min. bending radius for installation (dynamic): | 8 x outer diameter |
| -Max. traction: | 110 N |

Thermal properties

| | |
|------------------------|--------------------|
| -Transport and storage | - 20 °C to + 60 °C |
| -Location | 0 °C to + 50 °C |
| -operation | - 20 °C to + 60 °C |

Chemical properties

RoHS 2011/95/EU ; IEC 60811-2-1 (IRM 902, 4h at 70°C)

Fire behaviour

EN 60332-1 ; EN 50575 ; EN 61034 ; EN 50267 ; IEC 60754-2 ; IEC 61034 EN 13501-6 Class DCa -s1 d1 a1
 Fire load: 0.150 kWh/m

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Electrical properties

| | |
|---|---|
| Loop resistance | max. 150 Ohm / km according to VDE 0812 |
| Insulation resistance | min. 5 GOhm x km at +20°C |
| Operating capacity | nom. 45 nF / km |
| Characteristic impedance at 100MHz | 100 Ohm ± 5 Ohm |
| Test voltage | 700 V / AC |
| Propagation speed | approx. 0.74 c |
| Signal delay | max. 480 ns/100m |
| Skew | < 25 ns/100m |
| Coupling attenuation | > 55 dB, type 2 |
| Coupling resistance | < 100 mOhm/m at 10MHz, Grade 2 |
| Separation class | C |

Transmission properties

| f in MHz | Attenuation/ Attenuation (dB/100m) nom. | NEXT (dB) nom. | ACR (dB/100m) nom. | ELFEXT (dB/100m) nom. | RL (dB) nom. |
|----------|--|----------------------|--------------------------|-----------------------------|--------------------|
| 1 | 1,7 | 85 | 83 | 90 | 24 |
| 4 | 3,3 | 80 | 77 | 80 | 27 |
| 10 | 5,2 | 75 | 70 | 73 | 30 |
| 16 | 6,7 | 70 | 63 | 68 | 30 |
| 20 | 7,5 | 68 | 61 | 66 | 30 |
| 31,25 | 9,4 | 66 | 57 | 63 | 30 |
| 62,5 | 13,4 | 64 | 51 | 59 | 30 |
| 100 | 17,0 | 62 | 45 | 54 | 28 |
| 155 | 20,9 | 57 | 36 | 52 | 25 |
| 200 | 23,8 | 55 | 31 | 48 | 24 |
| 250 | 26,3 | 53 | 27 | 47 | 23 |
| 350 | 31,6 | 51 | 19 | 44 | 22 |
| 400 | 33,4 | 50 | 17 | 41 | 21 |
| 500 | 38,3 | 48 | 10 | 38 | 20 |

Form of delivery and order numbers

| | |
|--------------------------------|----------------------|
| 1000m disposable drum: | 047A0025-1000 |
| 500m disposable drum: | 047A0025-500 |
| 300m REELEX Box 20 inch | 047A0025-300 |

While the information has been carefully prepared to the best of our knowledge, nothing herein is intended as representation or warranty by us and no statement herein should be construed as a recommendation to infringe any existing patents. In an effort to improve our products, we reserve the right to make any changes deemed necessary.

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|--------|------------|-----------|------------|------|---------------|--------|------------|
| Signed | Date | Released | Date | Rev. | Change number | Name | Date |
| R.Mees | 22.09.2020 | F.Kohlert | 18.10.2020 | 003 | | R.Mees | 20.11.2020 |