

Application

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| IEC 11801-1: | Class F _A |
| EN 50173-1: | Class F _A |
| IEEE 802.3: | 10Base-T; 100Base-T; 1000Base-T; 10GBase-T |
| IEEE 802.3: | Power over Ethernet PoE; PoE+; 4PPoE |




Applicable Standards

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| Design specification: | EN 50288-9-1, EN 50174-2, IEC 14763-2, IEC 61156-5; EN 50575+A1 |
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Fire behaviour

| | |
|-------------------|-------------|
| Euroclass: | Dca |
| Smoke production: | s2 |
| Flaming droplets: | d1 |
| Acidity: | a1 |
| Flame retardant: | IEC 60332-1 |
| Halogen free: | IEC 60754-2 |
| Smoke density: | IEC 61034 |

Construction

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|----------------------|---|
| Construction: | S/FTP |
| Conductor: | Bare copper wire Ø 0.57 mm (AWG23/1) |
| Insulation: | Foam skin Polyethylene, Ø 1.45 mm |
| Twisting: | 2 cores to the pair |
| Pair screen: | Aluminium-laminated plastic foil, conducting side outward |
| Cable lay up: | 4 pairs (PiMF) |
| Overall screen: | Copper braid, tinned; coverage ≥40% |
| Outer jacket: | LSZH, blue RAL 5015 |
| Ripcord: | Nylon ripcord under jacket |
| Cable marking black: | Telegärtner AMJ 1000 S/FTP 4x2xAWG23/1 Cat.7 LSZH Dca-s2,d1,a1 NVP 78% „production batch no“ „sequential length in meters“    |

Mechanical properties

| | | |
|-----------------|----------------------|---------|
| Outer diameter: | 7.0 ± 0.3 mm | |
| Bending radius: | during operation: | ≥ 29 mm |
| | during installation: | ≥ 58 mm |
| Tensile force: | max. 85 N | |
| Weight: | 52 kg/km | |

Environment and Security

| | | |
|--------------------|----------------------|------------------|
| Temperature range: | during operation: | -30 °C to +60 °C |
| | during installation: | 0 °C to +50 °C |
| Fire load: | 500 MJ/km | |

Electrical properties (typical at 20°C)

| | | |
|---|-------------------------------|------|
| Characteristic impedance Z_c (1-100 MHz): | 100 ± 15 Ω | |
| Nominal velocity of propagation NVP: | ca. 78% | |
| Propagation delay: | ≤ 427 ns/100m | |
| Delay skew: | ≤ 25 ns/100m | |
| Loop resistance: | 13.9 Ω/100m max. 19 Ω/100m | |
| Resistance unbalance: | pair: | ≤ 2% |
| | between the pairs: | ≤ 4% |
| Insulation resistance (500V): | ≥ 500 MΩx100m | |
| Mutual capacitance (at 800 Hz): | < 5.6 nF/100m | |
| Capacitance unbalance (pair/ground): | ≤ 160 pF/100m | |
| Test voltage (DC, 2 sec.) (core/core und core/screen): | 2500 V | |
| Transfer impedance (mΩ/m): | Grade 1 | |
| Coupling attenuation: | Type 1 | |
| Segregation classification: | d | |

Transmission properties (at 20°C)

Has been verified as being compliant with the standards.

Transmission properties

Typical values

| Frequency | 1* | 4 | 10 | 16 | 31.2 | 62.5 | 100 | 125 | 200 | 250 | 300 | 600 | 1000* | MHz |
|-------------|-----|-----|-----|-----|------|------|------|------|------|------|------|------|-------|---------|
| Attenuation | 1.8 | 3.4 | 5.5 | 6.9 | 9.7 | 13.9 | 17.7 | 19.9 | 25.6 | 28.8 | 31.8 | 46.6 | 62.2 | dB/100m |
| NEXT | 103 | 100 | 98 | 97 | 95 | 94 | 93 | 92 | 91 | 90 | 90 | 89 | 88 | dB/100m |
| PS NEXT | 100 | 97 | 95 | 94 | 92 | 91 | 90 | 89 | 88 | 87 | 87 | 86 | 85 | dB/100m |
| ACR | 101 | 97 | 92 | 90 | 85 | 80 | 75 | 72 | 65 | 61 | 58 | 42 | 26 | dB/100m |
| PS ACR | 98 | 94 | 89 | 87 | 82 | 77 | 72 | 69 | 64 | 58 | 55 | 39 | 23 | dB/100m |
| ACR-F | 95 | 94 | 93 | 91 | 90 | 87 | 85 | 83 | 77 | 74 | 74 | 60 | 50 | dB/100m |
| PS ACR-F | 92 | 91 | 92 | 88 | 87 | 84 | 82 | 80 | 74 | 71 | 71 | 57 | 47 | dB/100m |
| Return Loss | 27 | 30 | 32 | 32 | 32 | 32 | 32 | 31 | 30 | 25 | 25 | 23 | 21 | dB/100m |

* Values are for information only.

| Order No. old / new | Standard designation | Scope of delivery | Copper content kg/km |
|-----------------------------|-----------------------------|----------------------------------|-------------------------|
| L02002A0180B / 100027776 | J-02YSCH 4x2x0,57 PiMF LSZH | 1000 m disposable wooden drum | 26.6 |
| L02002A0181B / 100027778 | J-02YSCH 4x2x0,57 PiMF LSZH | 500 m disposable wooden drum | 26.6 |

Drum dimensions for: L02002A0180B / 100027776

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|---------------------|--------------------------|
| Drum type: | wooden drum (disposable) |
| Flange diameter d1: | 600 mm |
| Core diameter d2: | 259 mm |
| Central hole: | 80 mm |
| Overall width: | 316 mm |
| Winding width: | 300 mm |
| Drum/EPAL: | 6 |

The editions of the afore mentioned standards by the time of 12.04.2021 are valid.