

Network cable - NBC-100,0-94S - 1423514

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By the meter, Network cable, Ethernet CAT7 (10 Gbps), shielded, PE-X halogen-free, black, 8-wire (4x2xAWG26/7; S/FTP), color single wire: White-blue, white-orange, white-green, white-brown, cable length: 100 m, For railway applications



Key Commercial Data

| | |
|--------------|---------------|
| Packing unit | 1 pc |
| GTIN | |
| GTIN | 4055626346007 |

Technical data

Dimensions

| | |
|-----------------|-------|
| Length of cable | 100 m |
|-----------------|-------|

General data

| | |
|----------------------|------------------------|
| Rated voltage | 30 V AC |
| | 30 V DC |
| Number of positions | 8 |
| Signal type/category | Ethernet CAT7, 10 Gbps |

Cable

| | |
|------------------------------------|--|
| Cable type | Ethernet for rail applications |
| Cable type (abbreviation) | 94S |
| Signal type/category | Ethernet CAT7, 10 Gbps |
| Cable structure | 4x2xAWG26/7; S/FTP |
| Conductor cross section | 4x 2x 0.14 mm ² |
| AWG signal line | 26 |
| Conductor structure signal line | 7x 0.16 mm |
| Core diameter including insulation | 1.05 mm ±0.1 mm |
| Wire colors | White-blue, white-orange, white-green, white-brown |
| Twisted pairs | 2 cores to the pair |

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Cable

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| Type of pair shielding | Aluminum-lined polyester foil |
| Overall twist | 4 pairs, twisted |
| Shielding | Tinned copper braided shield |
| External sheath, color | black |
| External cable diameter D | 6.6 mm ±0.2 mm |
| Minimum bending radius, fixed installation | 6 x D |
| Tensile strength GRP | ≤ 60 N (temporary) ≤ 15 N (Permanent) |
| Cable weight | 59 kg/km |
| Copper weight | 28 kg/km |
| Outer sheath, material | PE-X |
| Material conductor insulation | Cell PE |
| Conductor material | Tin-plated Cu litz wires |
| Insulation resistance | ≥ 5 GΩ*km |
| Conductor resistance | ≤ 145 Ω/km |
| Working capacitance | 44 nF (per kilometer) |
| Wave impedance | 100 Ω ±5 Ω (at 100 MHz) |
| Near end crosstalk attenuation (NEXT) | 100 dB (with 1 MHz) 99 dB (at 10 MHz) 95 dB (at 100 MHz) 92 dB (at 200 MHz) 90 dB (at 250 MHz) 83 dB (at 500 MHz) 81 dB (at 600 MHz) 80 dB (at 700 MHz) 77 dB (at 800 MHz) 75 dB (at 900 MHz) 74 dB (at 1000 MHz) 72 dB (at 1100 MHz) 70 dB (at 1200 MHz) |
| Power-summated near end crosstalk attenuation (PSNEXT) | 97 dB (with 1 MHz) 96 dB (at 10 MHz) 92 dB (at 100 MHz) 89 dB (at 200 MHz) 87 dB (at 250 MHz) 80 dB (at 500 MHz) 78 dB (at 600 MHz) 77 dB (at 700 MHz) 74 dB (at 800 MHz) 72 dB (at 900 MHz) |

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Cable

| | |
|-----------------------------|-----------------------|
| | 71 dB (at 1000 MHz) |
| | 69 dB (at 1100 MHz) |
| | 67 dB (at 1200 MHz) |
| Attenuation | 0.25 dB (with 1 MHz) |
| | 0.76 dB (at 10 MHz) |
| | 2.49 dB (at 100 MHz) |
| | 3.69 dB (at 200 MHz) |
| | 4.18 dB (at 250 MHz) |
| | 5.6 dB (at 500 MHz) |
| | 6.74 dB (at 600 MHz) |
| | 7.32 dB (at 700 MHz) |
| | 7.89 dB (at 800 MHz) |
| | 8.5 dB (at 900 MHz) |
| | 9.11 dB (at 1000 MHz) |
| | 9.5 dB (at 1100 MHz) |
| | 9.9 dB (at 1200 MHz) |
| Return loss (RL) | 24 dB (with 1 MHz) |
| | 33.9 dB (at 10 MHz) |
| | 38.3 dB (at 100 MHz) |
| | 35.3 dB (at 200 MHz) |
| | 32.9 dB (at 250 MHz) |
| | 29.7 dB (at 500 MHz) |
| | 30.6 dB (at 600 MHz) |
| | 31 dB (at 700 MHz) |
| | 26.7 dB (at 800 MHz) |
| | 28.6 dB (at 900 MHz) |
| | 27.5 dB (at 1000 MHz) |
| | 26.9 dB (at 1100 MHz) |
| | 26.3 dB (at 1200 MHz) |
| Crosstalk attenuation (ACR) | 100 dB (with 1 MHz) |
| | 99 dB (at 10 MHz) |
| | 93 dB (at 100 MHz) |
| | 88 dB (at 200 MHz) |
| | 86 dB (at 250 MHz) |
| | 78 dB (at 500 MHz) |
| | 74 dB (at 600 MHz) |
| | 72 dB (at 700 MHz) |
| | 69 dB (at 800 MHz) |
| | 67 dB (at 900 MHz) |
| | 65 dB (at 1000 MHz) |

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Cable

| | |
|---|---|
| | 63 dB (at 1100 MHz) |
| | 61 dB (at 1200 MHz) |
| Power-summed crosstalk attenuation (PS-ACR) | 97 dB (with 1 MHz) |
| | 96 dB (at 10 MHz) |
| | 90 dB (at 100 MHz) |
| | 85 dB (at 200 MHz) |
| | 83 dB (at 250 MHz) |
| | 75 dB (at 500 MHz) |
| | 71 dB (at 600 MHz) |
| | 69 dB (at 700 MHz) |
| | 66 dB (at 800 MHz) |
| | 64 dB (at 900 MHz) |
| | 62 dB (at 1000 MHz) |
| | 60 dB (at 1100 MHz) |
| | 58 dB (at 1200 MHz) |
| Signal speed | 0.78 c |
| Signal runtime | 4.4 ns/m |
| Shield attenuation | 60 dB (up to 1000 MHz) |
| Interference suppression | 90 dB (up to 1000 MHz) |
| Coupling resistance | 5.00 mΩ/m (at 10 MHz) |
| Nominal voltage, cable | 125 V AC (U ₀) |
| Test voltage Core/Core | 1000 V AC (50 Hz, 1 min.) |
| Test voltage Core/Shield | 1000 V AC (50 Hz, 1 min.) |
| Fire protection in rail vehicles | BS 6853 (Internal cable Ia, Ib, II/external cable Ia, Ib, II) |
| | DIN 5510-2 (Fire protection level 1, 2, 3, 4) |
| | EN 45545-2 |
| | EN 50306-4 |
| | NF F16-101 (Classification C/F1) |
| | NF F16-101 (Internal cable A1, A2, B/external cable A1, A2, B) |
| | NFPA 130 |
| | PN-K-02511 (Class A) |
| | UIC 564-2 (Class A) |
| Flame resistance | according to EN 60332-1-2 |
| | EN 60332-3-25 |
| | according to ISO 14572 5.21 (UN ECE-R 118.01) |
| Halogen-free | According to EN 50267-2-1 |
| | according to EN 60684-2 |
| Resistance to oil | according to EN 60684-2, 72 h at 100 °C, IRM 902 |
| Other resistance | Resistant to fuel according to EN 60684-2, 72 h at 100 °C, IRM 903 |
| | Resistant to ozone according to EN 50306-4, 72 h at 40 °C, procedure B, volume concentration 200 x 10 ⁻⁶ |

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Cable

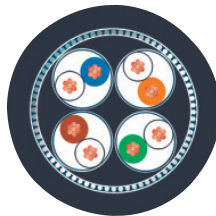
| | |
|---------------------------------|--|
| Concentration of fumes | EN 61034-2 |
| Ambient temperature (operation) | -40 °C ... 80 °C (cable, fixed installation) |

Environmental Product Compliance

| | |
|------------|---|
| China RoHS | Environmentally Friendly Use Period = 50 |
| | For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration" |

Drawings

Cable cross section



Ethernet for rail applications [94S]

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