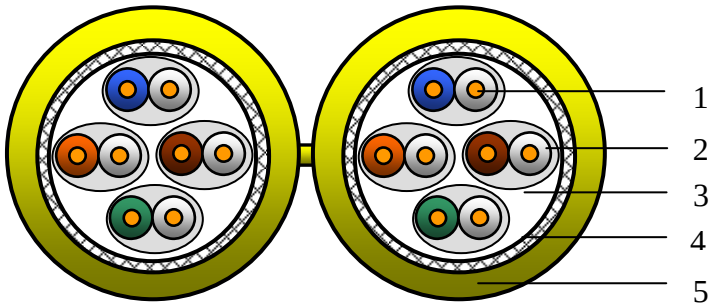
BELDEN
SENDING ALL THE RIGHT SIGNALS

# Technical Data Sheet

**1887ENH 2= CAT 7 S/FTP FRNC/LSOH**
**Networking Cables**
**Datatwist® cable**
2018-05-30 V3




## Applications

- Horizontal and building backbone cable
- Support current and future Category 6a and 7 applications, such as:
  10GBase-T (10 Gigabit Ethernet), 1000Base-T (Gigabit Ethernet), 100 Base-T, 10 Base-T, FDDI, ATM

## General standards

- International standard: ISO/IEC 11801 2nd edition (2002) and ISO/IEC 11801 Amendment 2 (2010)
- European standard: EN 50173-1 (2002) and EN 50173-1 Amendment 1 (2009)

## Construction & Dimensions

| | | |
|---|---|---|
| **1.** | **Conductor** | |
| | Material | Solid bare copper ETP |
| | Diameter | AWG 23 |
| **2.** | **Insulation** | |
| | Material | Foamed polyethylene |
| | Nominal diameter over insulation | 1.45 mm |
| **3.** | **Cable core** | |
| | Pair | 2 twisted insulated conductors with overall foil |
| | Foil | Laminated aluminium-polyester<br>Aluminium facing outside |
| | Number of shielded pairs | 4, all twisted together |
| **4.** | **Braid** | |
| | Material | Solid tinned copper |
| **5.** | **Jacket** | |
| | Material | LSNH |
| | Diameter | 7.0 ± 0.3 mm x 15.6 ± 0.5 mm |
| | Ripcord | Nylon ripcord under jacket |
| | Colour | Yellow (RAL 1021) |

## Electrical characteristics

| Low frequency and D.C. (at 20°C) | Specification | Unit |
|---|---|---|
| D.C. resistance conductor | < 9,5 | Ω/100m |
| Resistance unbalance: within a pair / between pairs | < 2 / < 4 | % |
| Insulation resistance | ≥ 5000 | MΩ.km |
| Dielectric strength conductor-conductor and conductor-screen (2 sec.) | 2.5 | kV DC |
| Mutual capacitance | < 56 | nF/km |
| Capacitance unbalance pair to ground | < 1600 | pF/km |
| Nominal velocity of propagation (for information only) | 0.78 | c |
| Delay skew (differential delay) | ≤ 25 | ns/100m |
| Transfer impedance according IEC 61156-5 | Grade 2 | |
| Coupling attenuation according IEC 61156-5 | Type II | |

| Nominal | 1*) | 4 | 10 | 16 | 31.2 | 62.5 | 100 | 125 | 200 | 300 | 600 | 1000*) | MHz |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Attenuation | 1.8 | 3.3 | 5.3 | 6.7 | 9.4 | 13.4 | 17.1 | 19.3 | 26.7 | 30.8 | 45.5 | 60.3 | dB/100m |
| NEXT | 103 | 100 | 98 | 97 | 95 | 94 | 93 | 92 | 91 | 90 | 89 | 88 | dB/100m |
| PS NEXT | 100 | 97 | 95 | 94 | 92 | 91 | 90 | 89 | 88 | 87 | 86 | 85 | dB/100m |
| ACR | 101 | 97 | 93 | 91 | 85 | 81 | 76 | 73 | 64 | 59 | 43 | 28 | dB/100m |
| PS ACR | 98 | 94 | 90 | 88 | 82 | 78 | 73 | 70 | 61 | 56 | 40 | 25 | dB/100m |
| ACR-F | 95 | 94 | 93 | 91 | 90 | 87 | 85 | 83 | 77 | 74 | 60 | 50 | dB/100m |
| PS ACR-F | 92 | 91 | 90 | 88 | 87 | 84 | 82 | 80 | 74 | 71 | 57 | 47 | dB/100m |
| Return Loss | 27 | 30 | 32 | 32 | 35 | 33 | 32 | 31 | 30 | 25 | 23 | 21 | dB/100m |

*): NOTE: Limits below 4MHz and at 1000 MHz are for information only

## Environmental and overall characteristics

| | Specification | Unit |
|---|---|---|
| Maximum operating voltage (for all temperatures cable is intended to be used) | 72 | V D.C. |
| Maximum continuous current per conductor (@25°C) | 1.5 | A |
| Temperature rating installation | 0 / 50 | °C |
| Temperature rating operation | - 30 / 60 | °C |
| Total cable weight | 109 | kg/km |
| Minimum bending radius (during operation and installation) | 29 / 58 | mm |
| Maximum pulling strength | 170 | N |
| Burning load | 1000 | kJ/m |
| Smoke density acc. to IEC 61034-1/2 & EN50268-1/2; transmittance | > 60 | % |
| Amount of halogen acid gas acc. to IEC 60754-1/2 & EN50267-1/2; pH | > 4.3 | |
| Amount of halogen acid gas acc. to IEC 60754-1/2 & EN50267-1/2; Conductivity | < 10 | µS/mm |
| Reaction to fire according IEC 60332-1 | Pass | |
| Reaction to fire according EN 50757 | Dca-s1,d1,a1 | |


Belden declares this product to be in compliance with the environmental regulations EU RoHS (Directive 2002/95/EC, 27 January 2003); this is valid for all material produced after the RoHS compliant date for this product.