



Product: [50007TSE](#)

MarineTuff Cat7 S/FTP, 4 Pr #23 Str BC, FMPE Ins, LSZH Jkt



Product Description

Industrial Marine Ethernet Cat7 S/FTP, 4 Pr 23AWG Stranded Bare Copper, FoamPolyethylene Insulation, Low Smoke Zero Halogen (SHF1) Jacket, DNV

Technical Specifications

Product Overview

| | |
|------------------------|------------------------------------------------------------------------------------------------------------------|
| Suitable Applications: | marine, harsh environment, IIoT, factory or process automation, IP cameras and devices, data communication, etc. |
|------------------------|------------------------------------------------------------------------------------------------------------------|

Construction Details

Conductor

| Size | Stranding | Material | No. of Pairs |
|------|-----------|------------------|--------------|
| 23 | Stranded | BC - Bare Copper | 4 |

Insulation

| Material | Color Code |
|------------------------|------------------------------------------------------------|
| PO - Polyolefin (Foam) | White / Blue, White / Orange, White / Green, White / Brown |

Inner Shield

| Shield Type | Material |
|-------------|-------------------------|
| Tape | Bi-Laminate (Alum+Poly) |

Outer Shield

| Shield Type | Material |
|-------------|--------------------|
| Braid | Tinned Copper (TC) |

Outer Jacket

| Material | Nom. Diameter |
|-------------------------------------------------|------------------|
| LSZH - Low Smoke Zero Halogen (Flame Retardant) | 9.0 mm (0.35 in) |

Electrical Characteristics

Electricals

| Max. Conductor DCR | Max. Capacitance Unbalance | Nom. Characteristic Impedance |
|---------------------------|----------------------------|-------------------------------|
| 95 Ohm/km (29 Ohm/1000ft) | 160 pF/100m | 100 Ohm |

Delay

| Max. Delay | Max. Delay Skew |
|---------------------|-----------------|
| 538 ns/100m @100MHz | 25 ns/100m |

High Frequency

| Frequency [MHz] | Max. Insertion Loss (Attenuation) | Min. NEXT [dB] | Min. PSNEXT [dB] | Min. ACRF (ELFEXT) [dB] | Min. PSACRF (PSELFEXT) [dB] | Min. RL (Return Loss) [dB] | Min. TCL [dB] | Min. ELTCTL [dB] |
|-----------------|-----------------------------------|----------------|------------------|-------------------------|-----------------------------|----------------------------|---------------|------------------|
| 1 | | | | | | | 40 | 35 |
| 4 | 3.7 dB/100m | 78 | 75 | 78 | 75 | 23 | 34 | 23 |
| 8 | 5.2 dB/100m | 78 | 75 | 77.2 | 74.2 | 24.5 | 31 | 16.9 |
| 10 | 5.9 dB/100m | 78 | 75 | 75.3 | 723 | 25 | 30 | 15 |

| | | | | | | | | |
|-------|--------------|------|------|------|------|------|------|------|
| 16 | 7.4 dB/100m | 78 | 75 | 71.2 | 68.2 | 25 | 28 | 10.9 |
| 20 | 8.3 dB/100m | 78 | 75 | 69.3 | 66.3 | 25 | 27 | 9 |
| 25 | 9.3 dB/100m | 78 | 75 | 67.3 | 64.3 | 24.3 | 26 | 7 |
| 31.25 | 10.4 dB/100m | 78 | 75 | 65.4 | 62.4 | 23.6 | 25.1 | |
| 62.5 | 14.9 dB/100m | 75.5 | 72.5 | 59.4 | 56.4 | 21.5 | 22 | |
| 100 | 19 dB/100m | 72.4 | 69.4 | 55.3 | 52.3 | 20.1 | 20 | |
| 200 | 27.5 dB/100m | 67.9 | 64.9 | 49.3 | 46.3 | 18 | 17 | |
| 250 | 31 dB/100m | 66.4 | 63.4 | 47.3 | 44.3 | 17.3 | 16 | |
| 300 | 34.2 dB/100m | 65.2 | 62.2 | 45.8 | 42.8 | 17.3 | | |
| 500 | 45.3 dB/100m | 61.9 | 58.9 | 41.3 | 38.3 | 17.3 | | |
| 600 | 50.1 dB/100m | 60.7 | 57.7 | 39.7 | 36.7 | 17.3 | | |

Mechanical Characteristics

Temperature

| |
|---------------|
| Operating |
| -25°C To 80°C |

Bend Radius

| |
|-------------------|
| Installation Min. |
| 80 mm (3.1 in) |

| | |
|--------------------|--------------------------|
| Bulk Cable Weight: | 92 kg/km (62 lbs/1000ft) |
|--------------------|--------------------------|

Standards and Compliance

| | |
|---------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Environmental Suitability: | Indoor, Non-Halogenated, Sunlight Resistance - UL 1581 sec 1200, Oil Resistance - JIS C 3005 |
| Flammability / Reaction to Fire: | IEC 60332-1-2, IEC 60332-3-22 |
| Data Category: | Category 7 |
| Third Party Performance Verification: | DNV GL certification |
| ISO/IEC Compliance: | ISO/IEC 11801-2, IEC 60092-360 |
| European Halogen Free Standards: | IEC 60754-1 - Halogen Amount = 0.5%, IEC 60754-2 - Halogen Acid Gas Amount - Max. Conductivity = 10 µS/mm, IEC 60754-2 - Halogen Acid Gas Amount - Min. pH = 4.3 |
| European Directive Compliance: | EU Directive 2011/65/EU (RoHS 2) |

Product Notes

| | |
|--------|-----------------------------------|
| Notes: | DNV GL Certificate No: TAE00003K7 |
|--------|-----------------------------------|

History

| | |
|----------------------|--------------------------------------------------|
| Update and Revision: | Revision Number: 0.268 Revision Date: 11-08-2022 |
|----------------------|--------------------------------------------------|

Part Numbers

Variants

| Item # | Color | Putup Type | Length |
|------------------|-------|------------|--------|
| 50007TSF 010305M | Black | Reel | 305 m |
| 50007TSF 006305M | Blue | Reel | 305 m |
| 50007TSF 008305M | Gray | Reel | 305 m |

© 2023 Belden, Inc
All Rights Reserved.

Although Belden makes every reasonable effort to ensure their accuracy at the time of this publication, information and specifications described here in are subject to error or omission and to change without notice, and the listing of such information and specifications does not ensure product availability.

Belden provides the information and specifications herein on an "ASIS" basis, with no representations or warranties, whether express, statutory or implied. In no event will Belden be liable for any damages (including consequential, indirect, incidental, special, punitive, or exemplary damages) whatsoever, even if Belden has been advised of the possibility of such damages, whether in an action under contract, negligence or any other theory, arising out of or in connection with the use, or inability to use, the information or specifications described herein.

All sales of Belden products are subject to Belden's standard terms and conditions of sale.

Belden believes this product to be in compliance with all applicable environmental programs as listed in the data sheet. The information provided is correct to the best of Belden's knowledge, information and belief at the date of its publication. This information is designed only as a general guide for the safe handling, storage, and any other operation of the product itself or the one that it becomes a part of. The Product Disclosure is not to be considered a warranty or quality specification. Regulatory information is for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulations based on their individual usage of the product.