



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.
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#### Construction Details

##### Conductor

Size	Stranding	Material	Number 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	72.3	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

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