Cat. 6_A 4x2x23/7 AWG S/FTP SBA LSZH-SHF2 MUD & Fire Resistant

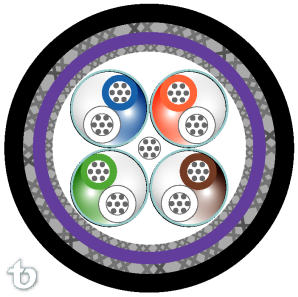
COMPUTER & LAN

P/N 9MGF261104

INDUSTRY

Applications

Offshore installations, Maritime Environment, Outdoor and direct burial installations, High bandwidth digital applications with low BER, Optimized for IEEE 802.3bt 4PPoE, Ships, High speed & Light craft, Data transmission during fire



Outer Jacket Material	Outer diameter	Weight
XL-HFFR	13.6 mm nom.	290 kg/km

General Construction

Four individually screened twisted pairs with stranded conductors, cabled together, overall copper braid shielded, inner jacket, galvanized steel braid armor and Outer jacket.

Design & Materials

Detailed Construction	The cable design and structure comply with the circuit integrity performance during a fire of the relevant requirements of IEC 60331-23 and allows data transmission during the fire. For more details regarding transmission properties during fire as well as the test procedure used, please go to >>Support>>White Papers on our website - www.teldor.com.
Conductor Material	Annealed Tinned Copper
Conductor Size (AWG)	23
Conductor Construction	Stranded
Insulation Material	PO + Fire Resistant Tape
Insulation O.D. (mm nom)	1.35
Conductor Unit Identification	Solid Color
Conductor Color Code	White/Blue, White/Orange, White.Green, White/Brown
Ind. Shield Material	Aluminum/Polyester Foil
Ind. Shield Design	Helically applied aluminum foil, 100% coverage
Conductor Unit Lay-Up	Pairs
Overall Shield Design	Braid
Overall Braid Shield	Yes
Overall Braid Material	Annealed Tinned Copper
Braid Coverage (% nom)	65
Overall Drain-wire Material	Annealed Tinned Copper

Cat. 6_A 4x2x23/7 AWG S/FTP SBA LSZH-SHF2 MUD & Fire Resistant

P/N 9MGF261104

INDUSTRY

Overall Drain-wire size (mm)	0.41
Overall Drain-wire Construction	Solid
Inner Jacket Material	FR-LSZH
Inner Jacket Diameter (mm nom)	9.6
Inner Jacket Color	Red
Armoring	Braided Galvanized Steel
Outer Diameter (mm nom)	13.6
Outer Jacket Color	Blue
Other Jacket Colors Available	Yes
Marking	Teldor Standard|Per request
Outer Jacket Material	XL-HFFR
Armor Coverage (% min)	95

TELDOR
Cables & Systems Ltd.

Cat. 6_A 4x2x23/7 AWG S/FTP SBA LSZH-SHF2 MUD & Fire Resistant

P/N 9MGF261104

INDUSTRY

Performance

Frequency Range (MHz)	1 - 500
Impedance (Ω)	100
Transfer Impedance (mΩ/meter)	100
Transfer Impedance Grade	Grade 1
Coupling Attenuation	Type I
Max. DC Resistance (Ω/km@20°C)	78
Max. Resistance Unbalance (%)	2
Capacitance (pF/m)	47
Capacitance Unbalance (pF/m max)	1.6
Velocity of Propagation (% nom)	65
Dielectric Strength (V/minute)	700
Dielectric Strength to Shield (V/minute)	700
Min. Insulation Resistance (MΩ•km)	8
Min. Insulation Resistance (GΩ•km)	4
Min. Bend Radius (mm)	160
Min. Operating Temperature (°C)	-30
Max. Operating Temperature (°C)	+65
UV Resistance	Yes
Fire Resistance	Yes
Mud Resistance	Yes
Rodent Resistance	Yes

Standards

Flammability Rating
IEC 60331-23
IEC 60332-1
IEC 60332-3
IEC 60754-1/2
IEC 61034-1/2
UL 1581 VW-1

Applicable Standards
DNV certified
ABS certified
LLOYDS certified
RMRS certified
IEC 60092-360
IEC 60811-2-1
IEC 61156
IEC 61156-5
IEEE 802.3af (PoE)
IEEE 802.3at (PoE+)
IEEE 802.3bt (4PPoE)
ISO/IEC 11801-1
TIA/EIA-568
ASTM G154
RoHS 3 2015/863/EU
NEK TS 606

Electrical Properties

Freq. MHz	Attenuation dB/100m 20°C	PS NEXT Loss dB		NEXT Loss dB		RL dB		PS ANEXT dB		PS ELFEXT dB		ELFEXT dB	
	Typical Value	Typical Value	Cat. 6_A	Typical Value	Cat. 6_A	Typical Value	Cat. 6_A	Typical Value	Cat. 6_A	Typical Value	Cat. 6_A	Typical Value	Cat. 6_A
1	2.0	87.0	72.3	90.0	75.3	22.0	20.0	70.0	67.0	85.0	65.0	88.0	68.0
4	3.5	87.0	63.3	90.0	66.3	25.0	23.0	70.0	67.0	73.0	53.0	76.0	56.0
10	5.4	87.0	57.3	90.0	60.3	30.0	25.0	70.0	67.0	65.0	45.0	68.0	48.0
20	7.6	87.0	52.8	90.0	55.8	30.0	25.0	70.0	67.0	59.0	39.0	62.0	42.0
30	9.6	87.0	50.1	90.0	53.1	27.0	23.8	70.0	67.0	55.4	35.4	58.4	38.4

100	17.8	80.0	42.3	83.0	45.3	24.0	21.1	67.0	62.5	45.0	25.0	48.0	28.0
150	22.2	78.0	39.7	81.0	42.7	22.0	18.8	66.0	59.8	41.5	21.5	44.5	24.5
200	25.4	78.0	37.8	81.0	40.8	21.0	18.0	65.0	58.0	49.0	19.0	52.0	22.0
250	28.6	75.0	36.3	78.0	39.3	20.0	17.3	63.0	56.5	37.0	17.0	40.0	20.0
300	31.4	75.0	35.1	78.0	38.1	19.0	17.3	62.0	55.3	35.5	15.5	38.5	18.5
400	37.1	70.0	33.3	73.0	36.3	19.0	17.3	61.0	53.4	33.0	13.0	36.0	16.0
500	42.1	70.0	31.8	73.0	34.8	19.0	17.3	61.0	52.0	31.0	11.0	34.0	14.0

Transmission data during fire - 100 Base-T

Version 1.5 | Last update: 2024-08-12