



Cat.7 4x2x23/7 S/FTP LSZH-SHF1

Batt Part No:	77105
Applications:	Offshore installations, Maritime Environment, Fixed or portable installations, Indoor use, fixed installations, High data rates, Ships, High speed & Light craft
General Construction	Category 7 , S/FTP, SHF1 marine type cable constructed with 4 individually foil-shielded twisted pairs with stranded conductors, cabled together, overall braid-shield and jacketed. The cable is certified by DNV / DNV-GL FILE NO. E-13120 and by ABS FILE NO. 14-GE1164406-1.
Outer Jacket Material:	FR-LSZH
Outer Diameter:	8.6 mm nom.
Weight:	87 kg/km
Conductor Material:	Annealed Tinned Copper
Conductor Size:	23 AWG
Conductor Construction:	Stranded
Insulation Material:	Cellular PO
Insulation O.D.:	1.48 mm nom.
Conductor unit identification:	Solid Colour
Ind. Shield Material:	Aluminium/Polyester Foil
Ind. Shield Design:	Helically applied Aluminium foil, 100% coverage
Conductor unit lay-up:	Pairs
Overall Shield Design:	Braid
Overall Braid Material:	Annealed Tinned Copper
Braid Coverage:	70%nom.
Overall Drain-wire Material:	Annealed Tinned Copper
Overall Drain-wire size:	0.41 mm
Overall Drain-wire Construction:	Solid
Inner jacket thickness:	0.9 mm nom.
Total number of conductors:	8
Frequency Range:	1 - 600 MHz
Impedance:	100 Ω
Transfer Impedance:	Grade 1
Coupling Attenuation:	Type I
Max. DC Resistance:	73 Ω /km nom.
Max. Resistance Unbalance:	2%
Capacitance Unbalance:	1.2 pF/m max.
Velocity of Propagation:	78%nom.
Dielectric Strength to Shield:	700 V/minute
Min. Bend Radius:	80 mm
Propagation Delay Skew:	25 ns/100m max.
Dielectric Strength:	700 V/minute
Min. Insulation Resistance:	5 G Ω •km
Tensile Strength - Short Term:	130 N max.
Max. Operating Temperature:	+ 85 °C
Min. Operating Temperature:	- 40 °C
Applicable Standards:	DNV-GL certified, IEC 60092-359, IEC 60092-350, IEC 61156-5, IEEE 802.3at (PoE+), ISO/IEC 11801, RoHS-2 2011/65/EU Flammability Rating: IEC 60332-1, IEC 60332-3-22, IEC 60332-3 , IEC 60754-2, IEC 61034-1/2, UL 1581 VW-1



Performance

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 7	Typical value	Cat 7	Typical value	Cat 7	Typical value	Car 7	Typical value	Cat 7	Typical value	Cat 7
1	2.0	87.0	75.0	90.0	78.0	22.0	20.0	70.0	N/A	95.0	75.0	98.0	78.0
4	3.5	87.0	75.0	90.0	78.0	25.0	23.0	70.0	N/A	90.0	75.0	93.0	78.0
10	5.4	87.0	75.0	90.0	78.0	30.0	25.0	70.0	N/A	86.0	71.0	89.0	74.0
20	7.6	87.0	75.0	90.0	78.0	30.0	25.0	70.0	N/A	80.0	65.0	83.0	68.0
30	9.6	87.0	75.0	90.0	78.0	27.0	23.8	70.0	N/A	76.4	61.5	79.0	64.5
100	17.8	80.0	70.0	83.0	73.0	24.0	21.1	67.0	N/A	66.0	51.0	69.0	54.0
150	22.2	78.0	67.0	81.0	70.0	22.0	18.8	66.0	N/A	63.0	47.5	66.0	50.5
200	25.4	78.0	65.0	81.0	68.0	21.0	18.0	65.0	N/A	60.0	45.0	63.0	48.0
250	28.6	75.0	63.4	78.0	66.4	20.0	17.3	63.0	N/A	58.0	43.0	61.0	46.0
300	31.4	75.0	62.2	78.0	65.2	19.0	17.3	62.0	N/A	52.5	41.5	55.0	44.5
400	37.1	70.0	60.4	73.0	63.4	19.0	17.3	61.0	N/A	49.0	38.9	52.0	41.9
500	42.1	70.0	59.0	73.0	62.0	19.0	17.3	61.0	N/A	47.0	37.0	50.0	40.0
600	47.6	70.0	58.0	72.0	61.0	19.0	17.3	61.0	N/A	45.0	35.4	48.0	38.4