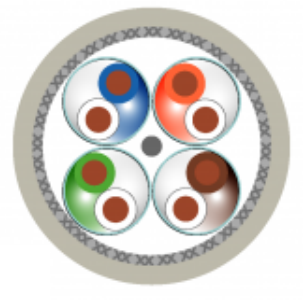
Cable Distribution Services
The able in cable®

Cat6A 4PR x 23AWG S/FTP LSZH-SHF1 Fire Resistant



Part Number:	**SHIPCAT6ASCR-FR**
Applications:	Offshore installations, Maritime Environment, Optimized for IEEE 802.3at PoE+, High bandwidth digital applications with low BER, Ships, High speed & Light craft, Data transmission during fire
General Construction:	Four individually foil-shielded twisted pairs with solid conductors, cabled together, overall braid-shield and jacketed. 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.
Outer Jacket Material:	FR-LSZH
Outer Diameter:	8.5 mm nom.
Weight:	85 kg/km

Detailed Construction:
Each conductor is wrapped with a special fire-resistant tape that serves as a flame barrier.

Conductor Material:	Annealed Bare Copper
Conductor Size:	23 AWG
Conductor Construction:	Solid
Insulation Material:	PO + Fire Resistant Tape
Insulation O.D.:	1.2 mm nom.
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:	55 % nom.
Overall Drain-wire Material:	Annealed Tinned Copper
Overall Drain-wire size:	0.41 mm
Overall Drain-wire Construction:	Solid
Outer Jacket Color:	Please contact us for options
Marking:	Please contact us for options

Standards

Applicable Standards:	DNV-GL certified, IEC 60092-359, IEC 60092-350, IEC 61156-5, ISO/IEC 11801, TIA/EIA-568, ASTM G154, RoHS-2 2011/65/EU
Flamability Rating:	IEC 60331-23, IEC 60332-1, IEC 60332-3 , IEC 60754-1/2, IEC 61034-1/2, UL 1581 VW-1

Electrical Properties:

Freq. MHz	Attenuation dB/100m 20°C		PS NEXT Loss dB		NEXT Loss dB		RL dB		PS ANEXT dB		PS ELFEXT dB		ELFEX dB
	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	Typical Value
1	2.0	2.0	95.0	72.3	98.0	75.3	22.0	20.0	70.0	67.0	85.0	65.0	88.0
4	3.7	3.8	95.0	63.3	98.0	66.3	25.0	23.0	70.0	67.0	73.0	53.0	76.0
10	5.6	5.9	95.0	57.3	98.0	60.3	28.0	25.0	70.0	67.0	65.0	45.0	68.0
20	7.9	8.4	90.0	52.8	93.0	55.8	28.0	25.0	70.0	67.0	59.0	39.0	62.0
30	9.7	10.3	85.0	50.1	88.0	53.1	27.0	23.8	70.0	67.0	55.4	35.4	58.4
100	18.0	19.1	80.0	42.3	83.0	45.3	24.0	21.1	67.0	62.5	45.0	25.0	48.0
150	22.4	23.6	78.0	39.7	81.0	42.7	22.0	18.8	66.0	59.8	41.5	21.5	44.5
200	26.0	27.6	78.0	37.8	81.0	40.8	21.0	18.0	65.0	58.0	49.0	19.0	52.0
250	29.4	31.0	75.0	36.3	78.0	39.3	20.0	17.3	63.0	56.5	37.0	17.0	40.0
300	32.5	34.3	75.0	35.1	78.0	38.1	19.0	17.3	62.0	55.3	35.5	15.5	38.5
400	38.0	40.0	70.0	33.3	73.0	36.3	19.0	17.3	61.0	53.4	33.0	13.0	36.0
500	43.0	45.2	70.0	31.8	73.0	34.8	19.0	17.3	59.0	52.0	31.0	11.0	34.0

Transmission data during fire - 100 Base-T

Performance

Frequency Range:	1 - 500 MHz
Impedance:	100 Ω
Transfer Impedance:	Grade 1
Coupling Attenuation:	Type I
Max. DC Resistance :	78 Ω /km@20°C
Max. Resistance Unbalance:	2 %
Capacitance:	47 pF/m
Capacitance Unbalance:	1.6 pF/m max.
Velocity of Propagation:	65 % nom.
Dielectric Strength:	700 V/minute
Dielectric Strength to Shield:	700 V/minute
Min. Insulation Resistance :	4 GΩ •km
Max. Operating Temperature:	+65 °C
Min. Operating Temperature:	-30 °C
UV resistance:	Yes