



Data and communication cable

Cat.7 S/FTP Marine Approved

Article number: 24016

27-08-2019

Description4x2xAWG 22/7 HFFR-LS Grey **Application:**

Backbone connections between servers within a data center, to provide a high-speed interconnect used for data transfer within the network

Characteristics:

- Available in stranded (AWG 22/7 CAT7) and solid (AWG 23/1 Cat 7) conductors
- Halogen free and low smoke, flame retardant
- DNV certified
- Different colour outer sheaths, other than grey , available on request

**Core identification:**

- White/Blue, White/Orange, White/Green, White/Brown

Trading information

Product group	Data and communication cable
Type	Cat.7 S/FTP Marine Approved
Net. Weight	0,080 kg/m
Sheath marking	TKF - InduData - Category 7 S/FTP - 4x2x0.27 mm ² AWG 22/7 stranded - HFFR-LS - MARINE APPROVED {Batch} {Length}

Trade lengths

	(24016 / 8713182265427)
Reel à 305	(24016H X 305 / 8713182311490)
Reel à 1000	(24016H X 1000 / 8713182311483)

Construction characteristics

Certified for shipboard application	Yes
Suitable as computer data cable	Yes
Standardization	BS EN 50288-4, IEC 61156-5, UL Subject 444
Conductor material	Copper
Lay-up Cable core	4



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Number of conductors per group	2
Diameter conductor	0.67 mm
Nominal cross section conductor	0.27 mm ²
Conductor category	Class 2 = stranded
Number of cores	8
Stranding element	Pairs
Number of stranding elements	4
Core insulation	Foam PE
Colour insulated wires	White/Blue, White/Orange, White/Green, White/Brown
Core identification	Colour
Screen over stranding element	Al/Polyester foil
Overall stranding screen	Braiding
Insulation thickness	0.40 mm
Diameter over armouring (nom.)	7.0 mm
Material outer sheath	LSZH
Outer sheath thickness	0.75 mm
Colour outer sheath	Grey
Outer diameter approx.	8.3 mm

Properties

Low smoke (acc. EN 61034-2)	Yes
Halogen free (acc. EN 60754-1/2)	Yes
Oil resistant	IEC 60811-2-1 IRM 902/ASTM No.2 (70°C for 4 Hrs)
Tensile load	110 N
Min. bending radius during installation	83 mm
Min. bending radius after installation	42 mm



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Technical characteristics

Permitted cable outer temperature, in movement	0 / 50 °C
Permitted cable outer temperature, fixed	-20 / 70 °C
Transportation and storage temperature	-20 / 70 °C

Electrical characteristics

Conductor DC resistance @ 20°C	95 Ohm/km
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Other properties

Annex PDF	70J223-008 SHF1
Velocity factor	76 %



Product information

Electrical performance

Article nr.:24015/24016/24017 Cat.7 S/FTP Marine Approved 4 x 2 x AWG 22/7 HFFR-LS Black/Grey/Purple Version : 70J223-008 SHF1

Standard : BS EN 50288-4 & IEC 61156-5 & ISO/IEC 11801 & UL Subject 444

Application : Generic cabling systems. Including 10/100/1000 BaseT, 20G, ATM & Token Ring. This range of screened cables is designed to support Cat 7 Link and Channel performance. With internationally defined Physical and Electrical performance up to 600 MHz.

Transmission performances

Frequency range

Frequency Unit	kHz			MHz																					
	1	10	100	4	8	10	16	20	25	31,25	62,5	100	200	250	300	500	600	-	-	-	-	-			
Transmission Frequency																									
Attenuation (dB/100m)	-	-	-	3.7	5.2	5.9	7.4	8.3	9.3	10.4	14.9	19	27.5	31	34.2	45.3	50.1	-	-	-	-	-	-		
Characteristic Impedance (ohm)	-	-	-	100±15								100±22			100±25			-	-	-	-	-	-	-	-
Return Loss (dB)	-	-	-	23	24.5	25	25	25	24.3	23.6	21.5	20.1	18	17.3	17.3	17.3	17.3	-	-	-	-	-	-		
Skew(ns/100m)	-	-	-	≤ 25																					
Propagation Delay (ns/100m)	-	-	-	552	547	545	543	542	541	540	539	538	537	536	536	536	535	-	-	-	-	-	-		
NEXT (dB)	-	-	-	78	78	78	78	78	78	78	75.5	72.4	67.9	66.4	65.2	61.9	60.7	-	-	-	-	-	-		
PS NEXT (dB)	-	-	-	75	75	75	75	75	75	75	72.5	69.4	64.9	63.4	62.2	58.9	57.7	-	-	-	-	-	-		
EL FEXT (dB/100m)	-	-	-	78	77.2	75.3	71.2	69.3	67.3	65.4	59.4	55.3	49.3	47.3	45.8	41.3	39.7	-	-	-	-	-	-		
PS EL FEXT (dB/100m)	-	-	-	75	74.2	72.3	68.2	66.3	64.3	62.4	56.4	52.3	46.3	44.3	42.8	38.3	36.7	-	-	-	-	-	-		