

LanMarin® Cat 7A S/FTP ARM SHF2

S/FTP Armoured

UV, SHF2

AWG 23/7

DNV

Application

Individual and collective screened lan-cable for ship and offshore, galvanized steel wire armour, low smoke, halogenfree and UV-resistant SHF2 jacket. The product is suitable for EMC-installations. It is tested according to IEC 61156-5 for transmission characteristics up to 1000 MHz - Horizontal floor wiring - Sectional specification. Ethernet IEEE 802.3at-2009 Type 2 (PoE+). This cable can be used in rough environments.



Construction

Conductor	Stranded Bare Cu AWG 23/7
Insulation	Foamskin PE 1.5 ± 0.05 [mm]
No. of pairs	4
Colour code	IEC 60189-2
Individual Screen pairs	Al/Mylar tape
Screen	Tinned Cu-braid ≥ 60 [% coverage]
Inner jacket	SHF1 Ø = 9.0 [mm]
Armour	0.3 mm Galvanized steel wire braid ≥ 60 [% optical cover]
Jacket	Black or grey SHF2
O.D.	12.2 ± 0.8 [mm]
Weight	120 [kg/km]
Jacket marking	LanMarin® Cat7A S/FTP SHF2 ARM – 4x2xAWG23/7 – "batch" – ****M

Specifications

Operating temperature normal	-40 – +80 [°C]
Temperature @ installation	-20 – +60 [°C]
Dielectric strength	DC1kV for 1min.
Characteristic impedance	100 ± 5 [Ω]
Conductor resistance	≤ 73.2 [Ω/km]
Resistance unbalance	≤ 5 [%]
Insulation resistance	≥ 5000 [MΩ x km]
Power over Ethernet	IEEE 802.3at-2009 Type 2 (PoE+)
Rated voltage	≥ 80 [V]
Min. bending radius	10 [x outer diam]
Min. bending radius installed	5 [x outer diam]
Min. bending radius @ installation	10 [x outer diam]

Norms

Halogenfree, max content corrosive and toxic gases	IEC 60754-1 & IEC 60754-2
Material properties, insulation and sheath	IEC 60092-360
Flame resistance	IEC 60332-3-22
Flame retardant	IEC 60332-1
Smoke emission	IEC 61034-2 ≥60%
Oil and fuel resistant	IRM 902 4h @ 70°C
UV-resistant	UL 1581 (300H)
Certification	DNV

Prod.no	Black - 2030002 Grey - 2030003
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Attenuation

Freq. [MHz]	Att. std [dB]	Att.typ [dB]	RL std [dB]	RLtyp [dB]	NEXTst [dB]	NEXTtyp [dB]	PSNEXTstd [dB]	PSNEXT typ [dB]	ELFEXT std [dB]	ELFEXT typ [dB]
4	3,75	3,55	23,0	25,0	78,0	101,0	75,0	98,0	78,0	93,00
8	5,22	4,90	24,5	27,5	78,0	99,0	75,0	96,0	77,2	91,0
10	5,82	5,48	25,0	28,0	78,0	98,0	75,0	95,0	75,3	89,0
16	7,34	7,01	25,0	28,0	78,0	96,0	75,0	93,0	71,2	86,0
20	8,21	7,91	25,0	28,0	78,0	93,0	75,0	90,0	69,3	83,0
25	9,18	8,91	24,3	28,0	78,0	93,0	75,0	90,0	67,3	81,0
31,25	10,26	10,02	23,6	27,0	78,0	93,0	75,0	90,0	65,4	79,0
62,5	14,57	14,29	21,5	25,5	78,0	88,0	75,0	85,0	59,4	74,0
100	18,53	18,12	20,1	24,0	75,4	83,0	72,5	80,0	55,3	69,0
200	26,57	25,90	18,0	21,0	70,9	83,0	67,9	80,0	49,3	63,0
250	29,73	29,6	17,3	20,0	69,4	80,0	66,4	77,0	47,3	61,0
300	32,69	31,96	17,3	19,0	68,2	80,0	65,2	77,0	45,8	55,0
500	42,76	41,47	17,3	19,0	64,9	75,0	61,9	72,0	41,3	50,0
600	47,10	45,79	17,3	19,0	63,7	75,0	60,7	72,0	39,7	48,0
800	54,92	53,73	16,1	19,0	61,9	75,0	58,9	72,0	37,2	45,0
1000	61,93	60,24	15,1	19,0	60,4	75,0	57,4	72,0	35,3	42,0

Updated

Date	Rev.	Description
03.10.2023	1	Rated voltage