

LanMarin® Cat 6A ARM SHF1

S/FTP
AWG 23/7 Flexible
Armoured
SHF1, UV
DNV

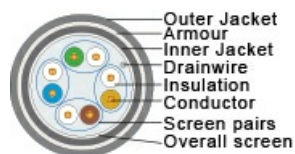
Application

Reinforced cable for ship- and offshore LAN installations. The product is approved and available in alternative designs. Solid or stranded conductors, and alternative galvanized steel wire or tinned copper armour braid. Both armours meets the requirements for the EU EMC directive. Ethernet IEEE 802.3at-2009 Type 2 (PoE+). This cable can be used in rough environments.



Construction

Conductor	Stranded Bare Cu AWG 23/7
Drainwire	Tinned Cu
Insulation	Foamskin PE PE 0=1.48 ± 0.02 [mm]
No. of pairs	4
Colour code	pair 1: white/blue - blue pair 2: white/orange - orange pair 3: white/green - green pair 4: white/brown - brown
Individual Screen pairs	Al/Mylar tape
Screen	Tinned Cu-braid
Inner jacket	SHF1 Ø = 9.0 [mm]
Armour	Galvanised steel wire braid ≥ 83 % [% optical cover]
Jacket	Grey SHF1
O.D.	11.2 [mm]
Jacket marking	NEK Kabel – CAT6A Marin Armoured 4 x 2 x AWG23/7 – SHF1 – DNV – IEC 60332-3-22 – Batch no – yy/mm/dd – ****M



Specifications

Operating temperature normal	-30 – +80
Temperature @ installation	0 – +50 [°C]
Dielectric strength	DC 1kV for 1min.
Test Voltage	700 [V-AC]
Impedance at 100MHz	100 ± 5 [Ω]
Tensile strength	400 [N]
Insulation resistance	5 [GΩ x km @ 20°C]
Power over Ethernet	IEEE 802.3at-2009 Type 2 (PoE+)
Rated voltage	≥ 80 [V]
Loop resistance	150 [Ω/km]
Capacitance	≤ 45 [nF/km] at 1kHz
Velocity factor	70 [%]
Mutual capacitance	48 [nF/km]
Min. bending radius	10 [x outer diam]

Norms

Halogenfree, max content corrosive and toxic gases	IEC 60754-2
Material properties, insulation and sheath	IEC 60092-350 & IEC 60092-350
Design and testing standards	IEC 61156-5 EN 50173 IEC 61156-5, EN 50173, EN 50228-10-2, ISO/IEC 1181 2.ed.
Flame resistance	IEC 60332-3-24
Flame retardant	IEC 60332-1-2
Toxic gases max.	IEC 61034
Smoke emission	DIN EN 61034 EN 50267 DIN EN 61034, EN 50267, EN 50399, EN 50575
Oil and fuel resistant	IEC 60811-2-1 IRM 902 4h @ 70°C
CPR classification	Dca-s1,d2,a1
Euroclass	Dca
Certification	DNV

Prod.no.	GSWB: 1089688 TCWB: 2020012
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Frequency (MHz)	Attenuation (dB/100m)	NEXT (dB)	ACR (dB)	ELFEXT (dB)	Returnloss (dB/100m)
1	1.8	95	93	90	25
4	3.3	95	92	88	28
10	5.4	92	87	87	30
16	6.7	90	83	86	30
20	7.4	88	81	85	30
31.25	9.6	87	77	81	30
62.5	13.9	86	72	77	28
100	17.5	84	66	72	27
155	22.4	83	61	68	26
200	24.8	82	57	65	25
300	30.7	81	50	62	23
400	35.9	80	44	59	22
500	40.2	79	39	57	21

Updated

Date	Rev.	Description
03.09.2020	1	Additional info.
03.04.2023	2	Additional info.
16.10.2023	3	Rated voltage