

LanMarin® Cat 6A ARM SHF1 Solid

S/FTP

AWG 23/1 Solid

Armoured

SHF1, UV

DNV

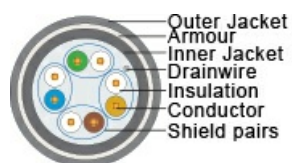
Application

Reinforced cable for ship- and offshore LAN installations. The product is approved and available in alternative designs. Galvanized steel armour braid. This product is suitable for use in EMC-installations. Cable for transmission characteristics up to 500 MHz - horizontal floor wiring - Sectional specification. Ethernet IEEE 802.3at-2009 Type 2 (PoE+). This cable can be used in rough environments.



Construction

Conductor	Solid Bare Cu class 1 AWG 23/1
Insulation	Foam PE $\varnothing = 1.38 \pm 0.02$ [mm]
No. of pairs	4
Colour code	pair 1: blue - white/blue pair 2: orange - white/orange pair 3: green - white/green pair 4: brown - white/brown
Individual Screen pairs	Al-/polyester tape
Drain wire	0.4mm solid Annealed Tinned Copper
Screen	Tinned Cu-braid
Inner jacket	SHF1 $\varnothing = 8.0 \pm 0.4$ [mm]
Armour alt.1	Galvanised steel wire braid $\geq 85\%$
Armour alt.2	Tinned Cu-braid $\geq 85\%$
Jacket	Grey SHF1 UV-resistant
O.D.	10.8 ± 0.2 [mm]
Weight	175 [kg/km]
Jacket marking	NEK Kabel – LanMarin Cat6A S/FTP AWG23/1 Armoured – SHF1 – DNV – IEC 60332-3-22 – <batch> – YY/MM/DD – ****m



Specifications

Operating temperature normal	-20 – +60 [°C]
Temperature @ installation	0 – +50 [°C]
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]
Transfer impedance	< 32 [mΩ/m] at 10MHz
Loop resistance	150 [Ω/km]
Capacitance	45 [nF/km] at 1kHz
Velocity factor	79 [%]
Min. bending radius	10 [x outer diam]

Norms

Halogenfree, max content corrosive and toxic gases	IEC 60754-1 & IEC 60754-2
Design and testing standards	IEC 61156-5 EN 50288-5-1 EN 50288-10-1
Flame resistance	IEC 60332-3-22
Flame retardant	IEC 60332-1-2
Smoke emission	IEC 61034 EN 50267-2
Oil and fuel resistant	IRM 902 23°C / 7 days, 70°C / 4h
UV-resistant	UL 1581 (300H)
Certification	DNV



Part No.	1089671
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Frequency (MHz)	Attenuation (dB/100m)	NEXT (dB)	ACR (dB)	ELFEXT (dB)	Returnloss (dB/100m)
1	1.7	105	103	95	25
4	3.2	105	102	93	28
10	5.2	105	100	92	30
16	6.5	105	98	91	30
20	7.3	105	98	90	30
31.25	9.4	105	96	86	30
62.5	13.6	103	89	82	30
100	17.0	100	83	77	30
155	22.2	98	76	73	28
200	24.3	95	71	70	26
300	30.2	93	73	67	25
400	35.2	90	55	64	24
500	39.1	87	48	62	23

Updated

Date	Rev.	Description
02.09.2020	1	Part.no
13.04.2023	2	Additional info.
10.10.2023	3	Rated voltage