



LanMarin® Cat 6A Solid SHF2

S/FTP

AWG 23/1 Solid

SHF2, UV

DNV

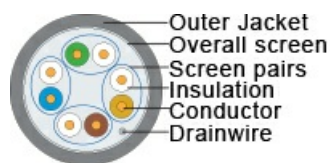
Application

Individual and collective screened LAN-cable, designed for ship- and offshore applications. The cable is used for datatransmission with characteristic impedance for 100 Ω and 500 MHz bandwidth. Ethernet IEEE 802.3at-2009 Type 2 (PoE+). This cable can be used in rough environments.



Construction

Conductor	Solid bare Cu 0.56 [mm] AWG 23/1
Insulation	Foam PE $\varnothing = 1.34 \pm 0.05$ [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/Mylar tape
Drain wire	0.4mm solid Annealed Tinned Copper
Overall Screen	Tinned Cu-braid ≥ 60 % [coverage]
Outer Jacket	Grey SHF2
O.D.	8.0 ± 0.40 [mm]
Weight	70.6 [kg/km]
Jacket marking	NEK Kabel – LanMarin Cat6A S/FTP 4x2xAWG23/1 – SHF2 – IEC 60332-3-22 – DNV – Batch no– dd/mm/yyyy – ****m





Specifications

Operating temperature normal	-40 – +80
Temperature @ installation	-20 – +60 [°C]
Dielectric strength	DC 1kV for 1min.
Characteristic impedance	100 ± 5 [Ω @ 100 MHz]
Conductor DC resistance	≤ 73.2 [Ω/km]
Resistance DC unbalance	≤ 5 [%]
Insulation resistance	≥ 5000 [MΩ x m]
Power over Ethernet	IEEE 802.3at-2009 Type 2 (PoE+)
Rated voltage	≥ 80 [V]
Capacitance unbalance	160 [pF/100m at 1kHz]
Velocity factor	74 [%]
Min. bending radius	10 [x outer diam]
Min. bending radius flexible	20 [x outer diam]

Norms

Halogenfree, max content corrosive and toxic gases	IEC 60754-1 & IEC 60754-2
Transmission performance	IEC 61156-5
Design and testing standards	IEC 60092-360
Flame resistance	IEC 60332-3-22
Flame retardant	IEC 60332-1-2
Smoke emission	IEC 61034-2 ≥ 60 %
Oil and fuel resistant	IRM 902 100°C x 24h
UV-resistant	UL 1581 (300H)
Certification	DNV



Part No.	2020013
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Attenuation

Frequency (MHz)	Attenuation Max. (dB/100m)	Return Loss (dB/100m)	NEXT (dB/100m)	PS NEXT (dB/100m)	Delay (ns/100m)
1	3.80	23.0	66.3	63.3	552.0
8	5.31	24.5	61.8	58.8	546.7
10	5.93	25.0	60.3	57.3	545.4
16	7.49	25.0	57.2	54.2	543.0
20	8.38	25.0	55.8	52.8	542.0
25	9.38	24.3	54.3	51.3	541.2
31.25	10.50	23.6	52.9	49.9	240.4
62.5	14.99	21.5	48.4	45.4	538.6
100	19.14	20.1	45.3	52.3	537.6
200	27.58	18.0	40.8	37.8	536.9
250	31.07	17.3	39.3	36.3	536.3
300	34.27	17.3	38.1	35.1	536.1
400	40.05	17.3	36.3	33.3	535.8
500	45.36	17.3	34.8	31.8	535.6