

LanMarin® Cat6 Solid SHF1

S/FTP
AWG23/1 Solid
SHF1, UV
DNV

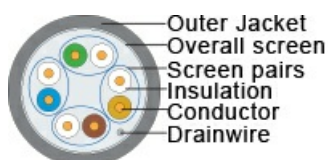
Application

Individual and collective screened LAN-cable, designed for ship- and offshore applications. The cable is used for datatransmission with characteristic impedance for 100 Ω. Ethernet IEEE 802.3at-2009 Type 4 (PoE++). This cable can be used in rough environments.



Construction

Conductor	Solid plain 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: white/blue - blue pair 2: white/orange - orange pair 3: white/green - green pair 4: white/brown - brown
Individual Screen pairs	Al/Mylar tape
Drain wire	0.4mm solid Annealed Tinned Copper
Overall Screen	Tinned Cu-braid ≥ 60 [% coverage]
Jacket	Grey SHF1
O.D.	8.0 ± 0.3 [mm]
Jacket marking	NEK Kabel – LanMarin CAT6 4 x 2 x AWG23/1 – SHF1 – IEC 60332-3-22 – DNV – **** m – YY/MM/DD

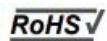


Specifications

Operating temperature normal	-40 – +80 [°C]
Temperature @ installation	-20 – +60 [°C]
Dielectric strength	DC 1kV for 1min.
Conductor DC resistance	≤ 93.8 [Ω /km]
Resistance DC unbalance	≤ 5 [%]
Insulation resistance	≥ 5000 [$\Omega \times \text{km}$] (IEC 61156-5)
Power over Ethernet	IEEE 802.3at-2009 Type 4 (PoE++)
Rated voltage	≥ 80 [V]
Velocity factor	70 [%]
Capacitance core-earth	160 [pF/100m] (IEC 61156-5)
Mutual capacitance	48 [nF/km]

Norms

Halogenfree, max content corrosive and toxic gases	IEC 60754-1 & IEC 60754-2
Material properties, insulation and sheath	IEC 60092-360
Transmission performance	IEC 61156-5
Flame resistance	IEC 60332-3-22
Flame retardant	IEC 60332-1-2
Toxic gases max.	IEC 61034-2 (≥ 60%)
Oil and fuel resistant	IRM 902 4h @ 70°C
UV-resistant	UL 1581 (300H)



Part No.	1089702
----------	---------

Attenuation

Frequency (MHz)	Attenuation Max. (dB/100m)	Return Loss (dB/100m)	NEXT (dB/100m)	PS-NEXT (dB/100m)	ELFEXT (dB/100m)	PS-ELFEXT (dB/100m)
4	3.83	23.0	66.3	63.3	56.0	53.0
8	5.37	24.5	61.8	58.8	49.9	46.9
10	6.00	25.0	60.3	57.3	48.0	45.0
16	7.61	25.0	57.2	54.2	43.9	40.9
20	8.53	25.0	55.8	52.8	42.0	39.0
25	9.57	24.3	54.3	51.3	40.0	37.0
31.25	10.75	23.6	52.9	49.9	38.1	35.1
62.5	15.48	21.5	48.4	45.4	32.1	29.1
100	19.92	20.1	45.3	42.3	28.0	25.0
150	25.30	18.8	42.4	39.4	24.2	21.2
200	29.14	18.0	40.8	37.8	22.0	19.0
250	33.02	17.3	39.3	36.3	20.0	17.0

Updated

Date	Rev.	Description
15.03.2023	1	Added drainwire