

LanMarin® Cat 7 SHF2 Solid

S/FTP

AWG 23/1 Solid

SHF2, UV

DNV

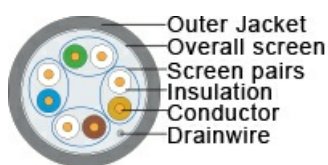
Application

Individual and collective screened LAN-cable, designed for ship- and offshore applications. The cable is used for datatransmission with characteristic impedance for 100Ω and 600 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]
Jacket	Grey SHF2
O.D.	8.0 ± 0.4 [mm]
Weight	70.6 [kg/km]
Jacket marking	NEK KABEL AS – LanMarin Cat7 S/FTP 4x2xAWG23/1 – SHF2 – IEC 60332-3-22 – DNV – Batch no– DD/MM/YY – ****m

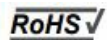


Specifications

Operating temperature normal	-40 – +80 [°C]
Temperature @ installation	-20 – +60 [°C]
Dielectric strength	DC1kV for 1min.
Characteristic impedance	100 ± 5 [Ω @ 100 MHz]
Insulation resistance	≥ 5000 [Ω x km] (IEC 61156-5)
Power over Ethernet	IEEE 802.3at-2009 Type 2 (PoE+)
Rated voltage	≥ 80 [V]
Capacitance unbalance	≤ 160 [pF/100m at 1kHz] (IEC 61156-5)
Velocity factor	78 [%]

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
Smoke emission	IEC 61034-2 $\geq 60\%$
Oil and fuel resistant	IRM 902 100°C x 24h
UV-resistant	UL 1581 (300H)
Certification	DNV



Part No.	2030014
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Attenuation

Frequency (MHz)	Attenuation Max. (dB/100m)	Return Loss (dB/100m)	NEXT (dB/100m)	PS-NEXT (dB/100m)	ELFEXT (dB(100m))
4	3.74	23.0	78.0	75.0	78.0
8	5.24	24.5	78.0	75.0	77.2
10	5.86	25.0	78.0	75.0	75.3
16	7.41	25.0	78.0	75.0	71.2
20	8.29	25.0	78.0	75.0	69.3
25	9.29	24.3	78.0	75.0	67.3
31.25	10.41	23.6	78.0	75.0	65.4
62.5	14.88	21.5	75.5	72.5	59.4
100	19.02	20.1	72.4	69.4	55.3
200	27.47	18.0	67.9	64.9	51.5
250	31.97	17.3	65.4	63.4	49.3
300	34.19	17.3	65.2	62.2	45.8
500	45.26	17.3	61.9	58.9	41.3
600	50.10	17.3	60.7	57.7	39.7