

# LanMarin® Cat 7 SHF2 Solid

S/FTP - AWG23/1

SHF2

DNV

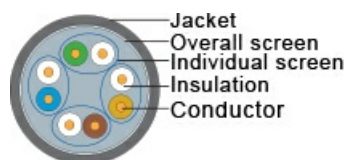
## Application

LAN cable designed and tested for ship- and offshore applications. In-door/out-door installation. Resistant to chemicals, UV radiation and harsh weather conditions. Flame retardant, tested for class F-Link high frequencies transmission. Ethernet IEEE 802.3at-2009 Type 2 (PoE+). This cable can be used in rough environments.



## Construction

Conductor	Solid Bare Cu 0.56 [mm]
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/PET
Screen	Tinned Cu-braid $\geq 60$ [% coverage]
Jacket	Black or grey SHF2
O.D.	$8.0 \pm 0.3$ [mm]
Weight	68 [kg/km]
Jacket marking	NEK KABEL AS – LanMarin CAT7 4x2xAWG23/1 – SHF2 – IEC 60332-3-22 – ****m – YY/MM/DD



## Specifications

Operating temperature normal	-40 – +80 [°C]
Temperature @ installation	-20 – +60 [°C]
Dielectric strength	DC1kV for 1min.
Characteristic impedance	$100 \pm 5$ [ $\Omega$ @ 100 MHz]
Conductor resistance	$\leq 93.8$ [ $\Omega$ /km]
Resistance DC unbalance	$\leq 5$ [%]
Insulation resistance	$\geq 5000$ [ $\Omega$ x km] (IEC 61156-5)
Power over Ethernet	IEEE 802.3at-2009 Type 2 (PoE+)
Rated voltage	$\geq 80$ [V]
Capacitance unbalance	$\leq 160$ [pF/100m at 1kHz] pair to ground (IEC 61156-5)



## 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 , ≥ 60%
Oil and fuel resistant	IRM 902 100°C x 24h
UV-resistant	UL 1581 (300H)
Certification	DNV



Part No.	Black: 2030006 Grey: 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)	PS-ELFEXT (dB/100m)
4	3.74	23.0	78.0	75.0	78.0	75.0
8	5.24	24.5	78.0	75.0	77.2	74.2
10	5.86	25.0	78.0	75.0	75.3	72.3
16	7.41	25.0	78.0	75.0	71.2	68.2
20	8.29	25.0	78.0	75.0	69.3	66.3
25	9.29	24.3	78.0	75.0	67.3	64.3
31.25	10.41	23.6	78.0	75.0	65.4	62.4
62.5	14.88	21.5	75.5	72.5	59.4	56.4
100	19.02	20.1	72.4	69.4	55.3	52.3
200	27.47	18.0	67.9	64.9	51.5	48.5
250	31.97	17.3	66.4	63.4	49.3	46.3
300	34.19	17.3	65.2	62.2	45.8	42.8
500	45.26	17.3	61.9	58.9	41.3	38.3
600	50.10	17.3	60.7	57.7	39.7	36.7



## Updated

Date	Rev.	Description
03.10.2023	1	Rated voltage
27.11.2023	2	Part.no