

# LanMarin® Cat 6A S/FTP SHF1

**AWG 23/7**

**S/FTP**

**SHF1**

**DNV**

## Application

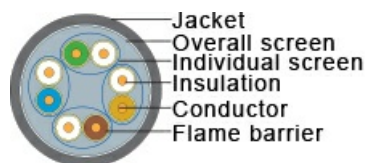
High performance offshore LAN cable with stranded conductors, AWG 23/7. Compliant with the Category 6A standards, requiring bandwidths up to 500 MHz. Foil screened pairs with an overall tinned copper braid. Tested for high-frequency and transmission measurements for Class EA-Link. Ethernet IEEE 802.3at-2009 Type 2 (PoE+).

This cable can be used in rough environments.



## Construction

Conductor	Stranded Tinned Cu AWG 23/7
Dielectricum	Cellular PE 1.48 ± 0.02 [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-/polyester tape
Screen	Tinned Cu-braid 60 [% optical coverage] , with drain wire
Jacket	Black SHF1
O.D.	8.3 [mm]
Weight	80 [kg/km]
Jacket marking	NEK Kabel – LanMarin Cat6A S/FTP 4x2xAWG23/7 SHF1 – TC – IEC 60332-3-22A – IEC 60092-360 – VK – batch no. **** – YY/MM/DD – ****m





## Specifications

Operating temperature normal	-30 - +80 [°C]
Test Voltage	500 [V-AC]
Conductor resistance	<70 [ $\Omega$ /km]
Insulation resistance	5 [G $\Omega$ x km @ 20°C]
Power over Ethernet	IEEE 802.3at-2009 Type 2 (PoE+)
Rated voltage	$\geq$ 80 [V]
Tensile strength	140 [N]
Capacitance	45 [pF/m]
Velocity factor	0,79
Min. bending radius	4 [x outer diam]

## Norms

Halogenfree, max content corrosive and toxic gases	IEC 60754-1
Material properties, insulation and sheath	IEC 60092-360 (359)
Design and testing standards	IEC 61156-5 EN 50288-1 , IEEE 802.3 4P PoE
Flame resistance	IEC 60332-3-22
Smoke emission	IEC 61034-1 & IEC 61034-2
Oil and fuel resistant	IEC 60811-2-1 IRM 902 23°C / 7 days, 70°C / 4h
UV-resistant	ASTM G 154
Part No.	10256632



## Attenuation

Freq. [MHz]	Att. std [dB]	Att.typ [dB]	RL std [dB]	RLtyp [dB]	NEXTst [dB]	NEXTtyp [dB]	PSNEXTstd [dB]	PSNEXT typ [dB]	ELFEXT std [dB]	ELFEXT typ [dB]
4	3,8	3,5	23,0	25,0	66,3	98,0	63,3	95,0	56,0	76,0
8	5,31	4,83	24,5	30,0	61,8	98,0	58,8	95,0	49,9	76,0
10	5,93	5,40	25,0	30,0	60,3	98,0	57,3	95,0	48,0	68,0
16	7,49	6,92	25,0	30,0	57,2	98,0	54,2	96,0	43,9	64,0
20	8,38	7,80	25,0	28,0	55,8	93,0	52,8	90,0	42,0	62,0
25	9,38	8,80	24,3	27,0	54,3	90,0	51,3	87,0	40,0	60,0
31,25	10,50	9,90	23,6	35,0	52,9	88,0	49,9	85,0	38,1	58,4
62,5	14,99	14,11	21,5	24,0	48,4	85,0	45,4	82,0	32,1	55,0
100	19,14	17,90	20,1	24,0	45,3	83,0	42,3	80,0	28,0	48,0
200	27,58	25,67	18,0	21,0	40,8	81,0	37,8	78,0	22,0	52,0
250	31,07	28,83	17,3	20,0	39,3	78,0	36,3	75,0	20,0	40,0
300	34,27	31,69	17,3	19,0	38,1	78,0	35,1	75,0	18,5	38,5
400	40,05	36,96	17,3	19,0	36,3	73,0	33,3	70,0	16,0	36,0
500	45,26	41,72	17,3	19,0	34,8	73,0	31,8	70,0	14,0	34,0

## Updated

Date	Rev.	Description
16.10.2023		Rated voltage