

LanMarin® Fire Cat 7 - SHF2

S/FTP

Fire resistant

UV resistant, SHF2

DNV

Application

High performance offshore LAN cable with solid conductors, AWG 23/1. Also designed as fire resistant communication cable for car and railway tunnels. Compliant with the category 7 standards, requiring bandwidths up to 600 MHz.

Foil screened pairs with an overall tinned copper braid. Tested for high-frequency and transmission measurements for class F-link.

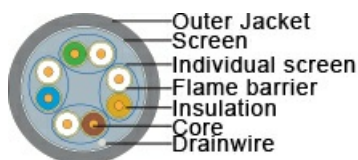
Resistant to chemicals, UV-radiation and harsh weather conditions. Female Modular plug can be connected to this cable.

IEEE 802.3at-2009 Type 2 (PoE+). This cable can be used in rough environments.



Construction

Conductor	Solid Bare Cu Ø = 0.58 [mm] AWG 23/1
Drainwire	Tinned Cu solid, 0.4 [mm]
Insulation	PE
Fire barrier each conductor	Mica tape
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
Drain wire	Tinned Cu
Screen	Tinned Cu-braid ≥ 60 [% coverage]
Jacket	Grey SHF2
O.D.	8.9 ± 0.5 [mm]
Weight	105 [kg/km]
Jacket marking	NEK Kabel – LanMarin Cat 7 FIRE S/FTP 4x2xAWG23/1 SHF2 – IEC 60332-3-22 – IEC 60331-23 – "batch" – YY/MM/DD – ****M





Specifications

Operating temperature normal	-40 – +90 [°C]
Temperature @ installation	15 – +50 [°C]
Conductor DC resistance	≤ 69.5 [Ω/km]
Insulation resistance	≥ 5000 [Ω x km]
Rated voltage	≥ 80 [V]
Power over Ethernet	IEEE 802.3at-2009 Type 2 (PoE+)
Capacitance	55 [pF/m @ 800-1000Hz]
Impedance	100 ± 5 [Ω] @ 100MHz
Min. bending radius repeated	10 [x outer diam.]
Min. bending radius installed	2 [x outer diam]

Norms

Halogenfree, max content corrosive and toxic gases	IEC 60754-1 & IEC 60754-2
Flame resistance	IEC 60332-3-22
Flame retardant	IEC 60332-1
Toxic gases max.	EN 50305 9.2
Fire resistant	IEC 60331-23 (180min) EN 50289-4-16 (180min)
Smoke emission	IEC 61034-1 & IEC 61034-2
Oil and fuel resistant	IEC 60811-404, IRM 902 and IRM 903
MUD resistant	NEK TS 606
UV-resistant	ASTM D 2565 92A
Certification	DNV



Part No.	2030007
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Frequency (MHz)	Attenuation (dB/100m)	NEXT (dB)	PS-NEXT (dB)	ELFEXT (dB)	PS-ELFEXT (dB)	RL (dB)
4	3.7	78.0	75.0	78.0	75.0	23.0
10	5.9	78.0	75.0	75.3	72.3	25.0
16	7.4	78.0	75.0	71.2	68.2	25.0
31.25	10.4	78.0	75.0	65.4	62.4	20.1
62.5	14.9	75.5	72.5	59.4	56.4	18.9
100	19.0	72.4	69.4	55.3	52.3	18.0
150	23.6	69.8	66.8	51.8	48.8	17.3
200	27.5	67.9	64.9	49.3	46.3	17.3
250	31.0	66.4	63.4	47.3	44.3	17.3
300	34.2	65.2	62.2	45.8	42.8	17.3
400	40.0	63.4	60.4	43.3	40.3	17.3
500	45.3	61.9	58.9	41.3	38.3	17.3
600	50.1	60.7	57.7	39.7	36.7	17.3

Updated

Date	Rev.	Description
03.10.2023	1	Rated voltage