

LanMarin® Fire Cat 7

S/FTP

Fire resistant

UV resistant, SHF1

DNV-GL

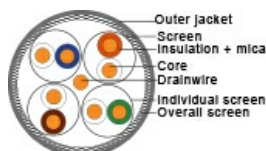
Application

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.



Construction

Conductor	Solid Bare Cu 0,58 [mm] AWG 23/1
Insulation	Fire resistant material
Fire barrier each conductor	Mica tape
No. of pairs	4
Colour code	IEC 60189-2
Individual Screen pairs	Al-/polyester tape 100% [coverage]
Drainwire	solid, 0,4[mm]
Overall Screen	Tinned Cu-braid diam. of strands: $\geq 0,10$ mm, density $\leq 55\%$
Jacket	Grey LSZH UV-resistant SHF1
O.D.	11,0 \pm 0,1 [mm] [mm]
Weight	100 [kg/km]



Specifications

Operating temperature	-40 – +90 [°C]
Temperature @ installation	-15 – +50 [°C]
Conductor resistance	$\leq 69,5$ [Ω /km]
Insulation resistance	≥ 5000 [M Ω x km]
Capacitance	55 [pF/m] at 800 - 1000 Hz
Impedance	100 \pm 5 [Ω] @ 100MHz
Min. bending radius	10 [x outer diam]
Min. bending radius @ installation	20 [x outer diam]

Norms

Halogenfree, max content corrosive and toxic gases	IEC 60754-1, 2
Flame retardant	IEC 60332-1
Toxic gases max.	EN 50305 9.2
Fire retardant	IEC 60332-3-22
Fire resistant	IEC 60331-23 EN 50200-PH15
Oil and fuel, hydrocarbons resistant	IEC 60811-404 IRM 902 and IRM 903
Smoke emission	IEC 61034-1, -2
MUD resistant	NEK TS 606
UV-resistant	ASTM D 2565 92A
Certification	DNV-GL



Part No.	1089665
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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
19.01.21	1	Updated Norms