

LanMarin® Cat 7

S/FTP AWG 23/1 or 23/7
LSZH, UV resistant, SHF1
DNV-GL, RMRS



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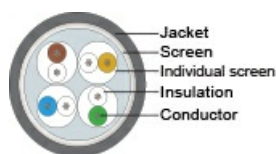
Application

High performance offshore LAN cable with solid or stranded conductors, AWG 23/1 or AWG 23/7. 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 or stranded Bare Cu 0.560 [mm] AWG 23/1 or AWG 23/7
Insulation	Foam PE Solid: 1,34 ± 0,05 [mm] Stranded: 1,55 ± 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
Overall Screen	Tinned Cu-braid ≥ 60%
Jacket	Grey SHF1 LSZH , also available with black jacket
O.D.	Solid: 8,0 ± 0,3 [mm] Stranded: 8,5 ± 0,3 [mm]
Weight	93 [kg/km]
Jacket marking	NEK Kabel LanMarin CAT7 S/FTP 4x2x22AWG/x - SHF1 - DNV-GL / RS - IEC60332-3-22 - DD/MM/YY



Specifications

Operating temperature	-40 – +80 [°C]
Temperature @ installation	-20 – +60 [°C]
Dielectric strength	DC1kV for 1min.
Characteristic impedance	100±5 [Ω @ 100 MHz]
Conductor DC resistance	≤ 93,8 [Ω/km]
Resistance DC unbalance	≤ 5 [%]
Insulation resistance	≥ 5000 [MΩ x km] (IEC 61156-5)
Capacitance unbalance	≤ 160 [pF/100m] @ 1kHz (IEC 61156-5)
Min. bending radius	5 [x outer diam]
Min. bending radius flexible	10 [x outer diam]



Norms

Halogenfree, max content corrosive and toxic gases	IEC 60754-1, IEC 60754-2
Material properties, insulation and sheath	IEC 60092-360
Design and testing standards	IEC 61156-5 EN 50288-4-2
Flame resistance	IEC 60332-3-22
Flame retardant	IEC 60332-1
Oil and fuel, hydrocarbons resistant	IRM 902 4h @ 70°C
Smoke emission	IEC 61034-2 , ≥ 60%
UV-resistant	UL 1581 (300H)
Certification	DNV-GL / RS
Part No.	Solid grey: 1089667 Solid black: 2030001 Flexible: 1089666



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	3,74	3,59	23,0	25,0	78,0	101,0	75,0	98,0	78,0	93,0	7
8	5,24	5,03	24,5	27,5	78,0	99,0	75,0	96,0	77,2	91,0	7
10	5,86	5,63	25,0	28,0	78,0	98,0	75,0	95,0	75,3	89,0	7
16	7,41	7,11	25,0	28,0	78,0	96,0	75,0	93,0	71,2	86,0	6
20	8,29	7,96	25,0	28,0	78,0	93,0	75,0	90,0	69,3	83,0	6
25	9,29	8,92	24,3	28,0	78,0	93,0	75,0	90,0	67,3	81,0	6
31,25	10,41	10,00	23,6	27,0	78,0	93,0	75,0	90,0	65,4	79,0	6
62,5	14,88	14,28	21,5	25,5	75,5	88,0	72,5	85,0	59,4	74,0	5
100	19,02	18,26	20,1	24,0	72,4	83,0	69,4	80,0	55,3	69,0	5
200	27,47	26,37	18,0	21,0	67,9	83,0	64,9	80,0	51,5	63,0	4
250	31,97	30,69	17,3	20,0	66,4	80,0	63,4	77,0	49,3	61,0	4
300	34,19	32,82	17,3	19,0	65,2	80,0	62,2	77,0	45,8	55,0	5
500	45,26	43,45	17,3	19,0	61,9	75,0	58,9	72,0	41,3	50,0	3
600	50,10	48,10	17,3	19,0	60,7	75,0	57,7	72,0	39,7	48,0	3