

LanMarin® Cat 7 ARM

S/FTP Flexible

UV, SHF1

Galvanized steel wire armour

DNV-GL

Application

Robust offshore LAN cable. Outer jacket is flame retardant, low smoke, halogenfree and UV-resistant. The product is designed for tough electrical and mechanical environments. The cable meets the EMC requirement. The cable is tested for high-frequency and transmission measurements for class F-link.



Construction

Conductor	Stranded Bare Cu 7 x 0,23 [mm] AWG 23/7
Insulation	Cellular PE 1,55 ± 0,05 [mm] EN 50290-2-23
No. of pairs	4
Colour code	IEC 60189-2
Individual Screen pairs	Al/Mylar tape
Sheath	Tinned Cu-braid ≥60% coverage
Screen 2	Fire barriere tape
Inner jacket	SHF1 Ø = 9.0 [mm]
Armour	Galvanised steel wire braid ≥60% [optical cover]
Jacket	Black SHF1
O.D.	12.2 [mm]
Weight	120 [kg/km]
Jacket marking	NEK Kabel - LanMarin® Cat 7 S/FTP 4x2xAWG23/7 ARMoured SHF1 - IEC 60332-3-22 - ****m - DD/MM/YY



Specifications

Operating temperature	-40 – +80 [°C]
Temperature @ installation	-20 - +60 [°C]
Characteristic impedance	100 ± 5 Ω
Conductor resistance	≤73,2 [Ω/km]
Dielectric strength	DC1kV for 1min.
Resistance unbalance	≤2 [%]
Insulation resistance	≥ 5000 [MΩ x km]
Capacitance unbalance	≤160 [pF/100m] (IEC 60189-1)
Velocity factor	0,78
Transmission performance	IEC 61156-5
Min. bending radius installed	31 [mm]
Min. bending radius @ installation	62 [mm]

Norms

Halogenfree, max content corrosive and toxic gases	IEC 60754-1, 2
Design and testing standards	IEC 61156-5 EN 50288-4-2 EN 50173
Sheathing material	IEC 60092-360 NEK 606
Flame retardant	IEC 60332-1 3024
Fire retardant	IEC 60332-3-22
Oil and fuel, hydrocarbons resistant	IRM 902 23°C / 7 days, 70°C / 4h
Smoke emission	IEC 61034-2 (≥60%)
UV-resistant	UL 1581 (300H) ASTM D 4587 ASTM D 2565 92A
Certification	DNV-GL
Part No.	1089728



Attenuation

Freq. [MHz]	Att. std. [dB]	Att. typ. [dB]	RL std. [dB]	RL typ. [dB]	NEXT std. [dB]	NEXT typ. [dB]	PSNEXT std. [dB]	PSNEXT typ. [dB]	ELFEXT std. [dB]	ELFEXT typ. [dB]	PSSELFEX std. [dB]
4	3,74	3,5	23,0	25,0	78,0	90,0	75,0	87,0	78,0	98,0	75,0
8	5,24	4,83	24,5	30,0	78,0	90,0	75,0	87,0	77,2	93,0	74,2
10	5,86	5,40	25,0	30,0	78,0	90,0	75,0	87,0	75,3	89,0	72,3
16	7,41	6,92	25,0	30,0	78,0	90,0	75,0	87,0	71,2	85,0	68,2
25	9,29	8,80	24,3	27,0	78	90,0	75,0	87,0	67,3	81,0	64,3
31,25	10,41	9,90	23,6	25,0	78,0	90,0	75,0	87,0	65,4	79,0	62,4
62,5	14,88	14,11	21,5	24,0	75,5	85,0	72,5	82,0	59,4	73,0	56,4
100	19,02	17,90	20,1	24,0	72,4	83,0	69,4	80,0	55,3	69,0	52,3
200	27,47	25,67	18,0	21,0	67,9	81,0	64,9	78,0	51,5	63,0	48,5
250	31,97	28,83	17,3	20,0	66,4	78,0	63,4	75,0	49,3	61,0	46,3
300	34,19	31,69	17,3	19,0	65,2	78,0	62,2	75,0	45,8	55,0	42,8
400	40,01	36,96	17,3	19,0	63,4	73,0	60,4	70,0	43,3	52,0	40,3
500	45,26	41,72	17,3	19,0	61,9	73,0	58,9	70,0	41,3	50,0	38,3
600	50,10	65,45	17,3	19,0	60,7	73,0	57,7	70,0	39,7	48,0	36,7