

LanMarin® Cat 8.1

Solid AWG 23/1
S/FTP
SHF1, UV
DNV

Application

LAN cable, individual screened pairs and overall tinned wire braid. Designed for ship- and offshore applications. The cable is used for data transmission with characteristic impedance 100 Ohm. The cable is fire retardant. Use up to 2000 MHz.



Construction

Conductor	Solid Bare Cu class 1 0.62 [mm] AWG 23/1
Insulation	Foamskin PE Ø = 1,58 [mm]
Screen	Tinned Cu-braid ≥ 60%
No. of pairs	4
Colour code	IEC
Individual Screen pairs	Al/Mylar tape 100% [coverage]
Filler	Cotton rope
Jacket	Black SHF1
O.D.	9,0 ± 0.4 [mm]
Weight	100 [kg/km]

Specifications

Operating temperature normal	-40 – +80 [°C]
Temperature @ installation	- 20 – +60 [°C]
Dielectric strength	DC1kV for 1min.
Conductor resistance	≤ 67 [Ω/km]
Resistance unbalance	≤ 5 [%]
Velocity factor	78 [%]

Norms

Halogenfree, max content corrosive and toxic gases	IEC 60754-1, IEC 60754-2
Flame resistance	IEC 60332-3-22 Cat.A
Flame retardant	IEC 60332-1-2
Smoke emission	IEC 61034-2 (≥ 60%)
Oil and fuel resistant	IRM 902 23°C / 7 days, 70°C / 4h
UV-resistant	UL 1581 (300H)
Certification	DNV



Part No. 2039000

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]	
1	3,0	0,5	19,0	24,0	65,0	90	62,0	87,0	65,0	88,0	62
4	3,0	1,0	19,0	26,0	63,8	80,3	60,5	79,2	59,9	79,3	56
8	3,0	1,4	19,0	26,0	58,9	79,5	55,6	77,7	53,9	73,7	50
10	3,0	1,6	19,0	26,0	57,3	75,0	54,0	73,7	52,0	71,9	49
16	3,0	2,1	18,0	30,0	53,9	77,1	50,6	74,6	47,9	67,7	44
20	3,0	2,3	17,5	30,0	52,3	75,4	49,0	73,8	45,9	65,7	42
25	3,2	2,6	17,0	28,0	50,7	77,9	47,3	77,0	44,0	64,4	41
31,25	3,6	2,9	16,5	28,0	49,1	76,2	45,7	75,4	42,1	62,2	39
62,5	5,1	4,2	16,0	27,0	44,0	71,4	40,6	70,9	36,0	56,8	33
100	6,5	5,4	16,0	27,0	40,5	65,7	37,1	64,9	32,0	54,0	29
200	9,3	7,7	14,3	26,0	35,3	67,5	31,9	64,4	25,9	46,2	22
250	10,4	8,7	13,4	25,5	33,6	67,5	30,2	64,7	24,0	42,9	21
300	11,5	9,6	12,7	25,0	32,3	63,4	28,8	61,1	22,4	39,7	19
400	13,3	11,2	11,6	24,0	30,1	57,4	26,6	56,3	19,9	40,9	16
500	15,0	12,6	10,7	23,0	27,9	60,6	24,8	58,7	18,0	37,3	15
600	16,5	14,1	10,0	22,0	25,7	64,3	22,7	61,9	16,4	32,8	13
1000	22,0	19,2	8,0	20,0	19,3	60,9	16,5	58,2	12,0	28,9	9,1
1500	27,7	22,7	8,0	18,0	13,9	53,3	11,2	50,4	8,4	21,6	5,4
2000	32,7	28,1	8,0	16,0	9,8	41,0	7,3	38,6	5,9	19,2	2,1

Updated

Date	Rev.	Description
April 2019	1	DNV-GL Approved