

LanMarin® Cat 7 ARM MUD

S/FTP Flexible AWG 23/7

UV, SHF2, MUD-resistant

Galvanized steel wire braid armour

DNV

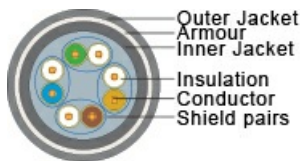
Application

Robust offshore LAN cable. Outer jacket is flame retardant, low smoke, halogenfree, UV- and MUD-resistant. The product is designed for tough electrical and mechanical environments. The cable fulfils the EMC requirement. The cable is tested for high-frequency and transmission measurements for class F-link. IEEE 802.3at-2009 Type 2 (PoE+). This cable can be used in rough environments.



Construction

Conductor	0.28 [mm ²] Stranded Plain Cu AWG 23/7
Insulation	Cellular PE 1.55 [mm] EN50290-2-23
No. of pairs	4
Colour code	IEC 60189-2
Individual Screen pairs	Al-/polyester tape
Screen	Tinned Cu-braid ≥ 0,10 [mm]
Inner jacket	Black LSZH-compound Ø = 8,6 [mm]
Armour	Galvanised steel wire braid ≥ 80% [% optical cover]
Outer Jacket	Black MUD- and UV-resistant material SHF2
O.D.	12 [mm]
Weight	210 [kg/km]
Jacket marking	NEK Kabel – LanMarin CAT7 S/FTP 4x2xAWG23/7 – Armour – SHF2 MUD – 60332-3-22 – DNV – "batch" – DD/MM/YY – ****M



Specifications

Operating temperature normal	-40 – +80 [°C]
Characteristic impedance	100 ± 5 Ω
Conductor resistance	< 69,5 [Ω/km]
Insulation resistance	≥ 5000 [MΩ x km]
Power over Ethernet	IEEE 802.3at-2009 Type 2 (PoE+)
Rated voltage	≥ 80 [V]
Test voltage	1 [kV-DC 1 min.]
Capacitance	55 [pF/m]
Velocity factor	0,78
Min. bending radius installed	5 [x outer diam]
Min. bending radius @ installation	10 [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
Cold bend and impact	CSA 22/2
Toxic gases max.	EN 50305 9.2
Weather resistant	IEC 60502 ASTM G 154 – ASTM D 4587 – EN ISO 1157
Ozone resistant	DIN VDE 0472 part 805B
Smoke emission	IEC 61034-1 & IEC 61034-2 (≥ 70%)
Oil and fuel resistant	IEC 60811
MUD resistant	NEK TS 606
UV-resistant	ASTM D 2565 92A
Certification	DNV
Part No.	1089617



Frequency (MHz)	Attenuation Max. (dB/100m)	NEXT (dB)	Return loss (dB/100m)
1	2,2	100	35
4	3,8	100	31
10	5,9	95	38
16	7,4	90	32
20	8,4	90	32
31,25	10,5	90	31
62,5	15,3	85	27
100	18,1	82	34
155	23,2	80	28
200	26,6	77	25
300	33,3	71	23
600	50,1	67	21

Updated

Date	Rev.	Description
Sept. 2016	1	Correction dimensions
13.02.2020	2	Construction
02.03.2020	3	Bending radius