LanMarin® Cat 6 Arctic Grade

F/FTP
AVG 23/7 Flexible
SHF2, UV
DNV

Application

Fire retardant, halogen free and low smoke, individually and overall screened 4 pairs cable for shipboard and offshore LAN networks.
Outdoor and indoor installations. Excellent mechanical properties. Excellent properties against oils and chemicals, and all weather conditions. Tested for cold bend and impact. Ethernet IEEE 802.3at-2009 Type 2 (PoE+).
This cable can be used in rough environments.

Construction

Conductor	Flexible Plain Cu AWG 23/7 (0.28mm²)
Insulation	Cellular PE
No. of pairs	4
Colour code	pair 1: white/blue - blue pair 2: white/orange - orange pair 3: white/green - green pair 4: white/brown - brown
Individual Screen pairs	Al-/polyester tape
Screen	Al-polyester tape
Drainwire	Tinned Cu, 7x0,22mm
Moisture barrier	Swelling tape
Jacket	Blue Arctic grade SHF2
O.D.	10 [mm]

Specifications

Operating temperature normal	-40 – +80 [°C]
Temperature @ installation	-10 – +50 [°C]
Temperature storage	-40 – +70 [°C]
Characteristic impedance	100 ± 5 [Ω]
Conductor resistance	69 [Ω/km]
Insulation resistance	≥ 500 [MΩ x km]
Power over Ethernet	IEEE 802.3at-2009 Type 2 (PoE+)
Rated voltage	≥ 80 [V]
Test voltage	1000 [V-DC x 2]
Capacitance	55 [pF/m @ 800-1000MHz]
Velocity factor	70 [%]
Mutual capacitance	48 [nF/km]

Norms

Halogenfree, max content corrosive and toxic gases	IEC 60754-2 EN 50305 9.2
Material properties, insulation and sheath	IEC 60092-360 (359) 3582
Flame resistance	IEC 60332-3-22 Cat.A
Flame retardant	IEC 60332-1-2
Cold bend and impact	CSA C22.2 (-40°C)
Weather resistant	ASTM G 154, EN 11507
Ozone resistant	IEC 60811-2-1
Smoke emission	IEC 61034-1 & IEC 61034-2
UV-resistant	ASTM-D-2565-92A ASTM D 2565 92A
Certification	DNV

Prod.no.	1089615

RoHS √ CE

Attenuation

Frequency (MHz)	Attenuation Max. (dB/100m)	Return Loss (dB/100m)	NEXT (dB/100m)	PS-NEXT (dB/100m)	ELFEXT (dB(100m)	PS-ELFEXT (dB/100m)
1	2.2		100	95	96	98
4	3.8	35	100	95	93	90
10	5.9	38	95	90	90	98
16	7.4	32	90	86	100	105
20	8.4	32	90	80	100	90
31.25	10.5	31	90	80	100	90
62.5	15.3	27	85	80	100	90
100	18.1	34	82	75	100	90
155	23.2	28	80	70	100	90
200	26.6	25	77	68	100	90
300	33.3	23	71	66	100	90

Updated

Date	Rev.	Description
16.10.2023	1	Rated voltage