LanMarin® Cat 5E Arctic Grade

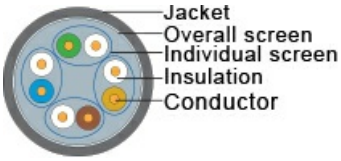
AWG 23/1
S/FTP
SHF2, UV

Application

Individual and collective screened LAN-cable, designed for ship- and offshore applications.
The cable is used for datatransmission with characteristic impedance for 100Ω and 100 MHz bandwith.
Ethernet IEEE 802.3at-2009 Type 2 (PoE+). Designed for ship- and offshore applications in arctic environments.
Tested for cold bend and impact.

Construction

Conductor	Solid plain Cu 0,56 [mm] AWG 23/1
Insulation	Foam PE
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-/polyester tape
Overall Screen	Tinned Cu-braid ≥60%
Jacket	Grey Arctic grade SHF2
O.D.	8,0 ± 0,3 [mm]
Weight	100 [kg/km]
Jacket marking	NEK Kabel – LanMarin® Cat 5E S/FTP 4x2xAWG23 – SHF2 – Arctic Grade – IEC 60332-3-22A – Batch no – DD/MM/YY – ****m



Specifications

Operating temperature normal	-55 - +80 [°C]
Temperature @ installation	-25 - +60 [°C]
Dielectric strength	DC 1kV for 1min.
Characteristic impedance	100 ± 5 [Ω @ 100 MHz]
Conductor DC resistance	≤ 73.2 [Ω/km]
Brittle temperature	-55 [°C]
Insulation resistance	≥ 5000 [MΩ x km] (IEC 61156-5)
Power over Ethernet	IEEE 802.3at-2009 Type 2 (PoE+)
Rated voltage	≥ 80 [V]
Capacitance unbalance	Pair to ground: ≤ 160 [pF/100m at 1kHz]
Min. bending radius	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
Transmission performance	IEC 61156-5
Flame resistance	IEC 60332-3-22 Cat.A
Flame retardant	IEC 60332-1-2
Cold bend and impact	Cold bend CSA 22.2 @ -55ºC Cold impact CSA 22.2 @ -55ºC
Smoke emission	IEC 61034-2 ≥60%
Oil and fuel resistant	IEC 60811-3-1 IRM 902 100°C x 24h
UV-resistant	UL 1581 (300H)

Part No.	1097001

CE RoHS

Attenuation

Frequency (MHz)	Attenuation Max. (dB/100m)	Return Loss (dB/100m)	NEXT (dB/100m)	PS-NEXT (dB/100m)
1	3.2	20.0	65.3	63.8
4	6.01	23.0	56.3	53.3
8	8.48	24.5	51.8	48.8
10	9.49	25.0	50.3	47.3
16	12.07	25.0	47.2	44.2
20	13.54	25.0	45.8	42.8
25	15.22	24.2	44.3	41.3
31,25	17.11	23.3	42.9	39.9
62,5	24.76	20.7	38.4	35.4
100	31.99	19.0	35.3	32.3