

# LanMarin® Cat 5E Arctic Grade

**AWG 23/1**  
**S/FTP**  
**UV resistant**  
**SHF2**

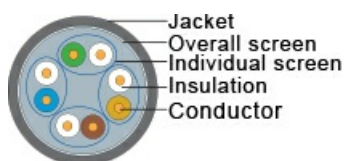
## Application

LAN cable. 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 pair 2: orange - white pair 3: green - white pair 4: brown - white
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 - lot - DD/MM/YY + meter



## Specifications

Operating temperature normal	-55 - +80 [°C]
Temperature @ installation	-25 - +60 [°C]
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)
Test voltage	1 [kV-1min.]
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 and 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 @ -55°C Cold impact CSA 22.2 @ -55°C
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
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## Attenuation

Frequency (MHz)	Attenuation Max. (dB/100m)	Return Loss (dB/100m)	NEXT (dB/100m)	PS-NEXT (dB/100m)
1	3,2	20	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

## Updated

Date	Rev.	Description
23.10.2020	1	RMRS Certification