

LanMarin® Cat 7 Arctic Grade

S/FTP
AWG 23
UV-bestendig
SHF2
RMRS

Bruksområde

Høyhastighets LAN-kabel for ekstreme miljøer. Designet for skips- og offshore-applikasjoner. Individuelt skjermet med Al-tape samt felles flettet skjerm. IEEE 802.3at-2009 Type 2 (PoE+). Kabelen er en type "Toughcat" og tåler røff behandling.



Konstruksjon

Leder	0.28 [mm ²] En- eller flertrådet Blank Cu AWG 23 solid (or stranded) plain Cu, AWG23
Isolasjon	Skummet PE
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Parantall	4
Fargekode	pair 1: blue - white pair 2: orange - white pair 3: green - white pair 4: brown - white
Skjerm over par	Al-/polyester tape
Felles skjerm	Fortinnet Cu-fletting ≥60 %
Ytterkappe	Grå SHF2
Ytre diameter	8,0 (9,0) ± 0,4 [mm]
Vekt	110 [kg/km]
Kappemerking	NEK Kabel – LanMarin® Cat7 S/FTP 4x2xAWG23 – Arctic Grade – RS – IEC 60332-3-22A – batch no – DD/MM/YY – ****M

Tekniske data

Driftstemperatur normalt	-55 - +80 [°C]
Temperatur v/installasjon	-25 - +70 [°C]
Karakteristisk impedans	100 ± 5 [Ω @ 100 MHz]
Ledermotstand	≤73,2 [Ω/km]
Motstand ubalanse maks.	≤5 [%]
Isolasjonsmotstand	≥ 5000 [MΩ x km] (IEC 61156-5)
Power over Ethernet	IEEE 802.3at-2009 Type 2 (PoE+)
Rated voltage	≥ 80 [V]
Strekkestyrke	120 [N]
Kapasitans	65 [pF/m] ved 800 - 1000 Hz
Kapasitans ubalanse	Pair to ground: ≤160 [pF/100m at 1kHz] (IEC 61156-5)
Hastighetsfaktor	70 [%]
Mutual capacitance	48 [nF/km]
Min. bøyeradius	10 [x ytre diam]

Normer

Halogenfri, max korrosive og giftige gasser	IEC 60754-1 & IEC 60754- 2
Materialeegenskaper, isolasjon og kappe	IEC 60092-360
Transmisjonsegenskaper	IEC 61156-5
Flammehemmet buntet kabel	IEC 60332-3-22 Cat.A
Flammehemmet enkeltkabel	IEC 60332-1-2
Kulde bøye- og slagprøve	Cold bend CSA 22.2 @ -55°C Cold impact CSA 22.2 @ -55°C
Temperatur sprekk	ASTM D 746-07 (-65°C)
Røykutvikling	IEC 61034-2 ≤60%
Olje- og drivstoffbestandig	IEC 60811-3-1 IRM 902 100°C x 24h
UV-bestandig	UL 1581 (300H)
Sertifisering	RS

El-nummer	Stranded: 1089613 Solid: 1097000
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Dempning

Frekv. [MHz]	Demp. std [dB]	Demp.typ [dB]	RL std [dB]	RLtyp [dB]	NEXTst [dB]	NEXTtyp [dB]	PSNEXTstd [dB]	PSNEXT typ [dB]	ELFEXT std [dB]	ELFEXT typ [dB]
4	3,74	3,59	23,0	25,0	78,0	101,0	75,0	98,0	78,0	93,0
8	5,24	5,03	24,5	27,5	78,0	99,0	75,0	96,0	77,2	91,0
10	5,86	5,63	25,0	28,0	78,0	98,0	75,0	95,0	75,3	89,0
16	7,41	7,11	25,0	28,0	78,0	96,0	75,0	93,0	71,2	86,0
20	8,29	7,96	25,0	28,0	78,0	93,0	75,0	90,0	69,3	83,0
25	9,29	8,92	24,3	28,0	78,0	93,0	75,0	90,0	67,3	81,0
31,25	10,41	10,00	23,6	27,0	78,0	93,0	75,0	90,0	65,4	79,0
62,5	14,88	14,28	21,5	25,5	75,5	88,0	72,5	85,0	59,4	74,0
100	19,02	18,26	20,1	24,0	72,4	83,0	69,4	80,0	55,3	69,0
200	27,47	26,37	18,0	21,0	67,9	83,0	64,9	80,0	51,5	63,0
250	31,97	30,69	17,3	20,0	66,4	80,0	63,4	77,0	49,3	61,0
300	34,19	32,82	17,3	19,0	65,2	80,0	62,2	77,0	45,8	55,0
500	45,26	43,45	17,3	19,0	61,9	75,0	58,9	72,0	41,3	50,0
600	50,10	48,10	17,3	19,0	60,7	75,0	57,7	72,0	39,7	48,0

Versjon

Dato	Rev.	Beskrivelse
1	23.10.2020	RMRS Certification
2	03.10.2023	Power over Ethernet