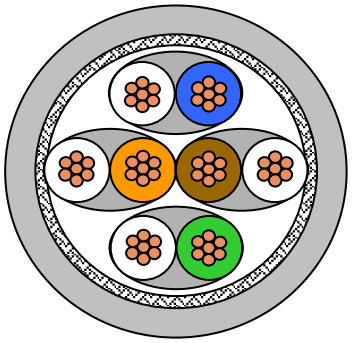
Part. No: BC-10-025 Rev.: 1.6 Date 03/02-2026

Bergen Cabling DNV approved
Maritime LAN S/FTP Cat6A stranded cable



Application

Generic Data transmission. This cable is a **Cat6A S/FTP** cable meant for use as installation/horizontal cable in tougher electrical and mechanical environment, including ships and offshore units.

Standards

EN 50173-1; EN 50288-4-1
ISO/IEC 11801; IEC 61156-5
Power over Ethernet(PoE/PoE+)
Det Norske Veritas (DNV) specification No. 6-827.50-2

Fire rating

LSHF-FR(SHF1) : IEC 60754-2; IEC 61034, IEC 60332-3-24, EN 50399 Class D_{ca}s2d1a1

Chemical resistance

Mineral oils IRM 902 (IEC60811-404) : 7 days/23°C, 4 hours/70°C
Diesel - IRM 903 (IEC60811-404) : 7 days/23°C, 4 hours/70°C

Construction

Conductor	Stranded copper wire Ø 0.27 mm², AWG23
Insulation	PE, Ø 1.6 mm
Twisting	2 cores to the pair
Cable lay up	4 pairs
Pair screen	Al-laminated plastic foil around each pair
Overall screen	Copper braid, tinned Ø 6,6 mm
Sheath	Oil resistant, Fire retardant and halogen free LSHF-FR, SHF1, acc. to IEC60092-360. Standard colour Grey RAL7035

Mechanical Properties

Bending radius	Installation	8 x D
	Installed	4 x D
Temperature range	During operation	-40°C to + 85°C
	During installation	-15°C to + 50°C
Fire load	4 pair	670 MJ/km
Maximum tensile load	During operation	No load
	During installation	100 N

Electrical Properties

at 20°C

DC loop resistance		≤ 138 Ω/km
Resistance unbalance		≤ 2%
Insulation resistance	(500 V)	≥ 5000 MΩxkm
Capacitance	at 800 Hz	Nom. 43 nF/km
Capacitance unbalance	(pair to ground)	≤ 1500 pF/km
Mean Characteristic impedance	@ 100 MHz)	100 ± 5 Ω
Nominal velocity of propagation		0,76c
Propagation delay		≤ 450 ns/100 m
Delay skew		≤ 15 ns/100 m
Transfer impedance	at 1 MHz	≤ 10 mΩ /m
	at 10 MHz	≤ 8 mΩ /m
	at 30 MHz	≤ 10 mΩ /m
Coupling attenuation		≥ 85 dB
Segregation classification	Acc. to EN 50174-2	"D"

Nominal Transmission characteristics

at 20°C

F (MHz)	Attenuation (dB/100m)	NEXT (dB)	ACR (dB/100m)	Return loss (dB)	PS-NEXT (dB)	PS-ACR (dB/100m)	ELFEXT (dB/100m)	PS-ELFEXT (dB/100m)
1	2,0	90	88		87	85	85	82
4	3,6	90	86	27	87	83	85	82
10	5,5	90	84	30	87	81	79	76
16	7,5	90	82	30	87	79	75	72
20	7,7	90	82	30	87	79	73	70
31.25	9,8	90	80	30	87	77	69	66
62.50	14,0	86	72	30	83	69	63	60
100	17,9	83	65	30	80	62	59	56
155.00	22,4	81	59	26	78	55	57	54
200.00	25,6	78	52	25	75	49	53	50
250.00	28,8	77	51	25	74	45	51	48
500.00	41,9	72	45	19	69	42	45	41

Technical data

Reference code	Description	Colour	Euro class	Fire load		Outer diameter	Weight
				MJ/km	kWh/m	(mm)	kg/km
BC-10-025	BC Cat6A stranded wires LSHF-FR 4x2/0.27mm2	Grey RAL7035	D_{ca}	670	0,186	8,1	75

Country of origin: DE
HS code: 85444911

Certification

This cable is certified by: Det Norske Veritas (DNV) certificate number TAE0000009
CPR classification No 1240330

UV-protection

The Bergen Cabling Cat6A BC-10-025 cable includes additional UV-stabilizer system, compared to indoor cables. The outer sheathing material is compliant to ISO 4892-3, UVA-lamp 340, exposure mode 1.
The Cat6A cable can be installed in outdoor environments, but direct sunlight is not advised, as this will increase the degradation process. Stronger sun radiation, as close to tropical areas, would accelerate the reduction of lifetime, as also additional exposure to such as chemicals.
Exposure to sun light could also to some degree affect the colour of the outer sheath. In northern areas, as the Nordics, the reduction of lifetime may be only marginal, even if exposed to direct sun light. For installations in more extreme conditions where the highest possible chemical resistance is required, we advise to use the Cat7 MUD protected version BC-10-005. For tropical or close to tropical conditions, in general we advise not to expose the cables to direct sun light, especially not the mid-day exposure, when the radiation is at its strongest, as this will accelerate the ageing process of all plastic materials, and could drastically reduce the lifetime of the cables. If sunlight exposure is expected in such areas, we recommend using the MUD version, to ensure longest possible lifetime.

Ordering info

Part No.	El No.	EqHub No.	Description
BC-10-025			Bergen Cabling DNV Maritime Cat6A S/FTP stranded LSHF-FR