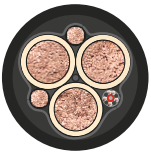
BiTcrane®SHORE POWER (N)TSCGEW11Y 6/10 kV

Halogen-free reeling cable for shore power connection, rated 6/10 kV, acc. to IEC/ISO/IEEE 80005-1, approved and certified by DNV



external application | EN 60332-1-2 | UV resistance | high flexibility | mechanical resistance | low operating temperature | oil resistant EN 60811-404 | halogen-free EN 60754 | chemical resistance | reeling cable

Technical data:

Thermal parameters:

Ambient temperature:
fixed installation: -40 °C to 90 °C
reeling operation:-30 °C to 90 °C
Max. permissible conductor temp.: 90 °C
Max. short-circuit temp. at conductor:
200 °C

Mechanical parameters:

Max. tensile load per conductor: 25 N/mm²
Bending radius acc. to DIN VDE 0298-3:
- fixed installation: 6 x cable - Ø
- free movement: 10 x outer - Ø
- reeling application: 12 x cable - Ø

Design:

Main cores	
Conductors:	tinned copper wires, finely stranded, acc. to IEC 60228 class 5
Insulation:	triple extruded insulation: - inner semi-conductive stress control layer - EPR compound with improved electrical and mechanical characteristics acc. to IEC 60092-360 - outer semi-coductive insulation shield layer
Ground conductor	
Conductors:	tinned copper wires, finely stranded, acc. to IEC 60228 class 5, semi-conductive layer
Pilot cores	
Conductors:	tinned copper wires, finely stranded, acc. to IEC 60228 class 5, twisted together around filler, screened
Insulation:	EPR compound acc. to IEC 60092-360, core colours: white with black numerals 1 - 8
Optical fiber element (FO):	12 fibers in G62,5/125 - OM1 acc. to IEC 60793-2-10
Core arrangement:	main cores laid around a central support element with the ground conductor and the screened pilot cores/optical fibre element in the interstices
Double layer sheath:	thermoplastic inner sheath, thermoplastic polyurethane TPU acc. to EN 50363-10-2, colour: black (other on request), high wear-resistance, high tensile strength, abrasion and tear-proof, inkjet marking

Application:

The cable is used for connection of the vessel to the main grid when berthed at the harbour quay. It's suitable for High Voltage Shore Connection (HVSC) systems for all ship types at berth: for on-board systems on container vessels, operation by single operator on cable cranes, mobile carrier systems e.g. for cruise liner.

Chemical parameters:

Resistance to oil:	DIN EN / IEC 60811-404
Behaviour in case of fire:	DIN EN / IEC 60332-1-2
Weather resistance:	unrestricted use indoors, outdoors, resistance to ozone, UV and moisture
Water resistance:	BiTcrane®SHORE POWER can be use at locations where the cables are completely covered with water and permanently subjected to a pressure ≤10 bar – covers protection class AD8

Electrical parameters:

Rated voltage U_o/U [kV]	6/10
Max. permissible operating voltage $U_{b\,max}$ in AC systems [kV]:	6.9/12
Max. permissible operating voltage $U_{b\,max}$ in DC systems [kV]:	9/18
AC test voltage [kV]:	21
Current-carrying capacities in amperes:	acc. to DIN VDE 0298-4

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n x mm^2	Outer diameter min. - max. [mm]	Approximate cable weight [kg/km]
3x70+2x35/2+1x(8x2,5)C+FO	66-69	6505
3x95+2x50/2+1x(8x2,5)C+FO	68-71	7440
3x120+2x70/2+1x(8x2,5)C+FO	71-74	8465
3x185+2x95/2+1x(8x2,5)C+FO	74-77	10000

Cable Factory BITNER reserves the right to modify specifications without prior notification.
Note: on customer's request a different number of optical fibers and pilot cores can be produced

Regulations of the individual fibre types:

Fiber optic type	Standard	Colour code
Multimode fiber G62,5/125	ITU-T G.651	acc. to ANSI/TIA/EIA 598-A

Typical attenuation values:

Fiber optic type	Description	Value (max.)	Unit
Multimode fiber G62,5/125	attenuation at 850 nm	3,5	dB/km
Multimode fiber G62,5/125	attenuation at 1300 nm	1,5	dB/km