



RoHS 2015/863/EU



LVD 2014/35/EU

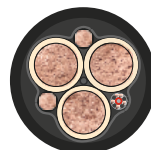


CPR 305/2011



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



external application



EN 60332-1-2



UV resistance



high flexibility



mechanical resistance



low operating temperature

oil resistant
EN 60811-404

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-conductive 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):

Core arrangement:

12 fibers in G62,5/125 - OM1 acc. to IEC 60793-2-10 main cores laid around a central support element with the ground conductor and the screened pilot cores/optical fiber 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 used 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_0/U [kV]	6/10
Max. permissible operating voltage $U_{0,max}$ in AC systems [kV]:	6.9/12
Max. permissible operating voltage $U_{0,max}$ in DC systems [kV]:	9/18
AC test voltage [kV]:	21
Current-carrying capacities in amperes:	acc. to DIN VDE 0298-4
Max. conductor resistance at 20 °C [Ohm/km] - 185 mm ² :	0.108
Max. conductor resistance at 20 °C [Ohm/km] - 95 mm ² :	0.210
Max. conductor resistance at 20 °C [Ohm/km] - 2,5 mm ² :	8.21

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Halogen-free reeling cable for shore power connection, rated 6/10 kV,
based on IEC/ISO/IEEE 80005-1, DIN VDE 0250-813

n x mm²	Outer diameter min. - max. [mm]	Approximate cable weight [kg/km]
3x185+2x95/2+1x(8x2,5)C+FO	75-78	9965

Cable Factory BITNER reserves the right to modify specifications without prior notification.
Note: on customer's request other cross sections, type of FO elements or number of 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