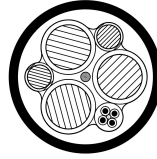


PROTOLON(SC) (N)TSKW0EU-J 0,6/1kV Low Voltage cable for shore-connection systems



Application

The cables are suitable for use low voltage shore connection systems (LVCS), on board the ship and on shore, to supply the ship with electrical power from shore, using control cores to adapt different type of vessels.

Global data

Brand	PROTOLON(SC)
Type designation	(N)TSKW0EU
Standard	based on DIN VDE 0250-813 based on IEC/ISO/IEEE 80005-3

Design features

Conductor	Bare copper, finely stranded class 5 acc. to IEC 60228 / DIN EN 60228
PE-Conductor	Bare copper, finely stranded class 5 acc. to IEC 60228 / DIN EN 60228
Insulation	Basic material EPR, type 3GI3, acc. to DIN VDE 0207 Part 20
Core identification	Natural coloured insulation with black numbering for power and control cores, earth conductors coloured in green-yellow
Control core	Cores made of bare copper, finely stranded class 5 acc. to IEC 60228 / DIN EN 60228, with EPR insulation
Core arrangement	Three core design laid around a central support element. Splitted earth conductor and control element positioned in the interstices
Support element	Central support element made of aramid yarns and rubber covering
Inner sheath	Vulcanized rubber compound, basic material EPR, type GM1b, acc. to DIN VDE 0207 part 21. Colour: natural
Outer sheath	Abrasion and tear-proof high grade rubber compound, basic material CR/PCP, compound type 5GM5, acc. to DIN VDE 0207 part 21. Colour: black

Electrical parameters

Rated voltage	0.6/1 kV (600/1000V)
Max. permissible operating voltage AC	0.7/1.2 kV
Max. permissible operating voltage DC	0.9/1.8 kV
AC test voltage	4 kV
AC test voltage - control cores	2.5 kV
EMC	Extremely low interference level as a result of use a symmetrical three-core design with very narrow manufacturing tolerances
Current Carrying Capacity description	According to DIN VDE 0298, Part 4

Chemical parameters

Flame propagation	DIN EN 60332-1-2
Resistance to oil	Acc. to DIN EN 60811-404 and DIN VDE 0473-811-404, paragraph 10
Weather resistance	Unrestricted use outdoors and indoors, resistant to ozone, UV and moisture

Thermal parameters

Max. permissible temperature at conductor	90 °C
Max. short circuit temperature of the conductor	250 °C
Ambient temperature for fixed installation	min -40 °C ; max +80 °C
Ambient temperature in fully flexible operation	min -25 °C ; max +80 °C

Mechanical parameters

Max. tensile load on the conductor	20 N/mm ²
Max. tensile load on the conductor during acceleration	25 N/mm ²
Min. bending radius	Acc. to DIN VDE 0298 part 3
Additional tests	Based on IEC/ISO/IEEE 80005-3

Number of cores x cross section	Part number	Conductor diameter max. mm	Outer diameter min. mm	Outer diameter max. mm	Bending radius free moving min. mm	Weight (approx.) kg/km	Permissible tensile force max. N	Dynamic tensile force max. N	Conductor resistance at 20°C max. Ω/km	Current carrying capacity (1) A	Short Circuit Current (conductor) kA
3x185+2x95/2+1x(4x2,5)	20258591	18.6	63.9	67.9	340	9500	11100	13875	0.106	461	26.46