

Flexible medium voltage cable PROTOLON(SC)[®] (N)TSCGEWUEU LWL WR



Application: The cables are suitable for use high voltage shore connection systems (HVCS), on board the ship and on shore, to supply the ship with electrical power from shore, using control cores and fiber optics to adapt different type of vessels. The cables can be manufactured to order or project-specific with E9/125, 50/125 or 62.5/125 fibres. The cable is also suitable for permanent use in water.

Construction and technical data:

- Three core laid around a central support element. Earth conductor, screened control element and filler positioned in the interstices.
- Screened control element: control cores and multi fiber loose buffer laid around a central support element. Screen made of aluminium tape with tinned copper drain wire.
- Central support element made of aramid yarns and rubber covering

Standard:	VDE 0250-813 (with ref. to)
Conductor material:	bare copper strand
Conductor construction:	Class 5 = flexible
Insulation:	basic EPR
Electrical field control:	inner and outer semiconducting rubber layer
Material inner sheath:	EPR
Self-supporting element:	aramide
Sheathing material:	rubber (CR) 5GM3
Flame-retardant:	VDE 0482-332-1-2/IEC 60332-1-2
UV-resistant:	yes
Oil-resistant:	EN 60811-404
Ozone-resistant:	yes
Max. temperature at conductor, °C:	90 °C
Permitted outer cable temperature, fixed, °C:	-40 - +80 °C
Permitted outer cable temperature, moved, °C:	-25 - +80 °C
Bending radius, moving application:	10 x Ø
Maximum tensile strength at the conductor:	25 N/mm ²



The products and information presented here are for technical calculation only. They are subject to technical progress and in no way represent the ability of shipment. Outer diameters are approximately.

Nominal voltage U_o: 6 kV
Nominal voltage U: 10 kV
Maximum permitted operating voltage in three-phase systems: 12 kV
Test voltage: 21 kV

part no.	part name	DI [mm]	RI [Ohm/km]	I _{bl} [A]	I _k [kA]	R _{bb} [mm]	Ø [mm]	F _{zp} [N]	F _{zd} [N]	Cu [kg/km]	G [kg]
052220	3X185 + 1X95 + 1X(12E9 + 12G50) + 1X(5X2.5ST + 4X3G62.5 FO)C RD	17.8	0.106	461	26.46	780	78	11100	13875	6360	10950

DI	diameter conductor
RI	Conductor resistance
I _{bl}	Ampacity in air (30 °C)
I _k	Short-circuit current (1 s)
R _{bb}	Bending radius, moving application
Ø	outer diameter approx.
F _{zp}	Tensile strength (permanent)
F _{zd}	Tensile strength (dynamic)
Cu	Copper weight (GER)
G	net weight per 1000