

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



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.

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: Kevlar yarns and rubber covering

Conductor material:	copper, bare
Conductor construction:	Class 5 = flexible
Insulation:	rubber (EPR) 3GI3
Electrical field control:	inner and outer semiconducting rubber layer
Material inner sheath:	EPR
Self-supporting element:	aramide
Sheathing material:	rubber 5GM5
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
Max. short circuit temperature at conductor, °C:	250 °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.

Protolon(SC)[®] (N)TSCGEWUEU 6/10 kV

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	RI [Ohm/km]	I _{bl} [A]	I _k [kA]	Ø [mm]	F _{zp} [N]	F _{zd} [N]	Cu	G [kg]
052943	3x70 + 1x35 + 1X(4x2.5 St + 2x3G62.5 LWL) RD	0.272	250	10.01	63.7	4200	5250	2621	6175
054606	3X70 + 1X35 + 2X(4x2.5 St + 2X3G50 FO) RD	0.272	250	10.01	63.7	4200	5250	2621	6175
052970	3x70 + 1x35 + 2X(4x2,5 St + 2x3G62,5 LWL) RT	0.272	250	10.01	63.7	4200	5250	2621	6175
052928	3x95 + 1x50 + 1X(4x2,5 St)C + 1x(6G62,5 LWL) RD	0.206	301	13.59	69	5700	7125	3478	7500
054522	3x120 + 1x70/2 + 1x(7X2.5ST)C + 1x(12E9/125) kV RD	0.161	352	17.16	70.6	7200	9000	4342	8400
054623	3x185 + 1x95 + 1X(5X2.5ST + 4X3G62.5 LWL)C RD	0.106	461	26.46	75.5	11100	13875	6360	10703
052091	3x185 + 1x95 + 1x(5x2,5ST + 4x3E9WL)C RD	0.106	461	26.46	76.6	11100	13875	6360	10708
052971	3x185 + 1x95 + 1x(7x2,5ST) + 1x(12G62,5LWL) RT	0.106	461	26.46	78	11100	13875	6408	10970

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