

# Flexible medium voltage cable Protolon<sup>®</sup> (N)TMCGCWOEU



DERZEIT KEIN BILD VERFÜGBAR. | NO IMAGE AVAILABLE.

**Application:** Single core cables are used in short lengths, e.g. for the connection of switchgear cubicles and for the connection of mobile transformer substations. When laying and during operation, care should be taken to protect them from excessive mechanical stress. The outer semi-conducting layer must not be heated before removal.

## Construction and technical data:

<b>Standard:</b>	DIN VDE 0250-813 (with ref. to)
<b>Conductor material:</b>	tinned copper
<b>Conductor construction:</b>	Class 5 = flexible
<b>Insulation:</b>	rubber (EPR) 3GI3
<b>Electrical field control:</b>	inner and outer semiconducting rubber layer
<b>Screen:</b>	spiral copper wires, tinned
<b>Torsion:</b>	+/- 25 °/m
<b>Sheathing material:</b>	rubber (CR) 5GM3
<b>Colour of outer sheath:</b>	red
<b>Flame-retardant:</b>	VDE 0482-332-1-2/IEC 60332-1-2
<b>UV-resistant:</b>	yes
<b>Oil-resistant:</b>	EN 60811-404
<b>Ozone-resistant:</b>	yes
<b>Max. temperature at conductor, °C:</b>	90 °C
<b>Permitted outer cable temperature, fixed, °C:</b>	-40 - +80 °C
<b>Permitted outer cable temperature, moved, °C:</b>	-25 - +60 °C
<b>Bending radius, fixed installation:</b>	6 x Ø
<b>Bending radius, moving application:</b>	10 x Ø
<b>Maximum tensile strength at the conductor:</b>	15 N/mm <sup>2</sup>



*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® (N)TMCGCWOEU 6/10 kV**

**Nominal voltage U<sub>0</sub>:** 6 kV  
**Nominal voltage U:** 10 kV  
**Maximum permitted operating voltage in three-phase systems:** 12 kV  
**Test voltage:** 29 kV

part no.	part name	DI [mm]	RI [Ohm/km]	l <sub>bl</sub> [A]	l <sub>k</sub> [kA]	Ø [mm]	F <sub>zp</sub> [N]	Cu	G [kg]
052171	1X95/16 KON RD	12.6	0.21	409	13.59	30	1425	1145	1709
052474	1X185/25 KON RD	17.4	0.108	627	26.46	32.3	2775	2078	2580

**Protolon® (N)TMCGCWÖU 8,7/15 kV**

**Nominal voltage U<sub>0</sub>:** 8.7 kV  
**Nominal voltage U:** 15 kV  
**Maximum permitted operating voltage in three-phase systems:** 18 kV  
**Test voltage:** 24 kV

part no.	part name	RI [Ohm/km]	Ø [mm]	F <sub>zv</sub> [N]	Cu	G [kg]
053136	01X400/35 KON RD	0.0486	44.9	6000	4265	5015

**Protolon® (N)TMCGCWOEU 12/20 kV**

**Nominal voltage U<sub>0</sub>:** 12 kV  
**Nominal voltage U:** 20 kV  
**Test voltage:** 29 kV

part no.	part name	DI [mm]	RI [Ohm/km]	l <sub>bl</sub> [A]	l <sub>k</sub> [kA]	Ø [mm]	F <sub>zp</sub> [N]	Cu	G [kg]
052046	1X185/25 KON RD	17.4	0.108	664	26.46	41.2	2775	2083	3268
052047	1X300/25 KON RD	22.9	0.0654	898	42.9	47	4500	3309	4417

**Protolon® (N)TMCGCWOEU 18/30 kV**

**Nominal voltage U<sub>0</sub>:** 18 kV  
**Nominal voltage U:** 30 kV  
**Test voltage:** 43 kV

part no.	part name	DI [mm]	RI [Ohm/km]	l <sub>bl</sub> [A]	l <sub>k</sub> [kA]	Ø [mm]	F <sub>zp</sub> [N]	Cu	G [kg]
052461	1X25/16 KON RD	6.4	0.795	189	3.58	35	375	468	1570
052245	1X50/16 KON RD	9	0.393	294	7.15	36.6	750	712	1860
052237	1X95/16 KON RD	12.6	0.21	434	13.59	41.7	1425	1145	2470
052440	1X500/35 KON RD		0.0391		71.5	61.5	7500	5194	7560

DI	diameter conductor
RI	Conductor resistance
l <sub>bl</sub>	Ampacity in air (30 °C)
l <sub>k</sub>	Short-circuit current (1 s)
Ø	outer diameter approx.
F <sub>zv</sub>	Tensile strength (during installation)
F <sub>zp</sub>	Tensile strength (permanent)
Cu	Copper weight (GER)
G	net weight per 1000