Medium voltage reeling cable
PRYSMIAN Protolon® (SMK) (N)TSCGEWOEU

Application: Flexible medium voltage reeling cable for extremely high mechanical stress, e.g. as drum operation, deflection in different planes or torsion. Applications are e.g. festoon, high-speed container cranes, crane systems, mobile large equipment and excavators.

Construction and technical data:

Standard:	DIN VDE 0250-813 (with ref. to)
Conductor material:	tinned copper
Conductor construction:	class „FS“ = exceptionally fine stranded
Insulation:	rubber 3GI3
Electrical field control:	inner and outer semiconducting rubber layer
Arrangement of protective conductors:	split in the outer interstices
Material inner sheath:	rubber compound based on PCP
Torsion protection:	polyester braid
Torsion:	+/- 25 °/m
Sheathing material:	rubber 5GM5
Colour of outer sheath:	red
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:	-50 - +80 °C
Permitted outer cable temperature, moved, °C:	-35 - +80 °C
Bending radius, fixed installation:	6 x Ø
Bending radius, moving application:	12 x Ø
Maximum tensile strength at the conductor:	20 N/mm²
Operating speed random, m/min.:	240 m/min.
Operating speed monospiral (one way), m/min.:	240 m/min.

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.

PRYSMIAN Protolon® (SMK) (N)TSKCGEWOEU 3.6/6 kV

Nominal voltage Uo: 3.6 kV

Nominal voltage U: 6 kV

Maximum permitted operating voltage in three-phase systems: 7.2 kV

Test voltage: 11 kV

part no.	part name	Rl [Ohm/km]	Ibl [A]	Ik [kA]	Ø [mm]	Fzp [N]	Fzd [N]	Cu	G [kg]
051651	3X35 + 3X25/3	0.565	162	5.01	42.6	2100	3150	1310	2710
052030	3X70 + 3X35/3	0.28	250	10.01	49.4	4200	6300	2470	4385
053527	3X50 + 3X25/3	0.393	202	7.15	45.4	3000	4500	1764	3491

PRYSMIAN Protolon® (SMK) (N)TSCGEWOEU 6/10 kV

Nominal voltage Uo: 6 kV

Nominal voltage U: 10 kV

Maximum permitted operating voltage in three-phase systems: 12 kV

Test voltage: 17 kV

part no.	part name	Rl [Ohm/km]	Ibl [A]	Ik [kA]	Ø [mm]	Fzp [N]	Fzd [N]	Cu	G [kg]
051419	3X25 + 3X25/3	0.8	131	3.58	40.8	1500	2250	1008	2501
051878	3X35 + 3X25/3	0.565	162	5.01	43.2	2100	3150	1310	2935
052548	3X35 + 3X35/3	0.565	162	5.01	43.2	2100	3150	1411	2951
051499	3X50 + 3X25/3	0.39	202	7.15	46.7	3000	4500	1764	3466
051543	3X70 + 3X35/3	0.28	250	10.01	50.7	4200	6300	2470	4593
052246	3X70 + 3X50/3	0.28	250	10.01	50.7	4200	6300	2621	4679
051442	3X95 + 3X50/3	0.21	301	13.95	56.8	5700	8550	3377	5709
053760	3X120 + 3X70/3	0.164	352	17.16	60.2	7200	10800	4334	7106

PRYSMIAN Protolon® (SMK) (N)TSCGEWOEU 8.7/15 kV

Nominal voltage Uo: 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	Rl [Ohm/km]	Ibl [A]	Ik [kA]	Ø [mm]	Fzp [N]	Fzd [N]	Cu	G [kg]
051427	3X25 + 3X25/3	0.795	139	3.58	44.1	1500	2250	1008	2675
051451	3X35 + 3X25/3	0.565	172	5.01	46.7	2100	3150	1310	3276
054444	3X35 + 3X35/3	0.565	172	5.01	46.7	2100	3150	1411	3200
053745	3X50 + 3X25/3	0.393	215	7.15	50.1	3000	4500	1764	3980

PRYSMIAN Protolon® (SMK) (N)TSCGEWOEU 12/20 kV

Nominal voltage Uo: 12 kV

Nominal voltage U: 20 kV

Maximum permitted operating voltage in three-phase systems: 24 kV

Test voltage: 36 kV

part no.	part name	Rl [Ohm/km]	Ibl [A]	Ik [kA]	Ø [mm]	Fzp [N]	Fzd [N]	Cu	G [kg]
051806	3X25 + 3X25/3	0.795	139	3.58	47.1	1500	2250	1008	3064
052181	3X35 + 3X25/3	0.565	172	5.01	49.6	2100	3150	1310	3497
054601	3X70 + 3X35/3	0.28	265	10.01	59	4200	6300	2470	5646
053389	3X240 + 3X120/3	0.0817	574	34.32	84.3	14400	21600	8467	13400

PRYSMIAN Protolon® (SMK) (N)TSCGEWOEU 14/25 kV

Nominal voltage Uo: 14 kV

Nominal voltage U: 25 kV

Maximum permitted operating voltage in three-phase systems: 29 kV

Test voltage: 36 kV

part no.	part name	Rl [Ohm/km]	Ibl [A]	Ik [kA]	Ø [mm]	Fzp [N]	Fzd [N]	Cu	G [kg]
054411	3X25 + 3X25/3	0.795	139	3.58	53.6	1500	2250	1008	3691
054828	3X35 + 3X25/3	0.565	172	5.01	56.2	2100	3150	1310	4216

PRYSMIAN Protolon® (SMK) (N)TSCGEWOEU 18/30 kV

Nominal voltage Uo: 18 kV

Nominal voltage U: 30 kV

Maximum permitted operating voltage in three-phase systems: 36 kV

Test voltage: 43 kV

part no.	part name	Rl [Ohm/km]	Ibl [A]	Ik [kA]	Ø [mm]	Fzp [N]	Fzd [N]	Cu	G [kg]
052258	3X50 + 3X25/3	0.393	216	7.15	63.2	3000	4500	1764	5424

Rl	Conductor resistance
Ibl	Ampacity in air (30 °C)
Ik	Short-circuit current (1 s)
Ø	outer diameter approx.
Fzp	Tensile strength (permanent)
Fzd	Tensile strength (dynamic)
Cu	Copper weight (GER)
G	net weight per 1000

