

PROTOLON (SM-R) AWG (N)TSCGEWUEU 15KV

Portable Power Reeling Cable



Portable Power Reeling Cable, EP Insulation, Semiconductive EP Shield, Neoprene Jacket with reinforcement, Jacket Thickness to ICEA, 90°C

Flexible H.V. reeling cable for extreme mechanical stresses, e.g. high travel speeds.

- Stacker/Reclaimer Reels
- Container Crane Reels
- Log handling Crane Reels
- Ship-unloader Reels
- Ship-loader Reels

STANDARDS / APPROVALS



UL file E251483

Based on DIN VDE 0250-813

MSHA P-189-4

DIN VDE 0298-4

IEC 60811-404

Reversed bending; roller bending; torsional stress

General

General

Certifications / Approvals

Electrical parameters

Chemical behaviour

Mechanical parameters

CABLE DESIGN

Conductor	Very finely stranded copper, tinned (class FS)
Inner semi-conducting layer	PE: Very finely stranded copper, tinned (class FS)
-	Yes
Core insulation material	Semi-conductive EPR
-	EPR rubber
-	PROTOLON
Outer semi-conducting layer	Special compound > 3GI3
-	Yes
Core arrangement	Semi-conductive NBR easy-strip
Material inner sheath	Three power cores layed up with earth conductor splitted in two and additional ground check conductor
-	Rubber - polychloroprene (PCP)
Armouring/reinforcement	Special compound 5GM3
Armouring/reinforcement material	Braiding
Material outer sheath	Polyester
-	Rubber - polychloroprene (PCP)
-	PROTOFIRM
-	Special compound > 5GM5

ELECTRICAL PARAMETERS

Test voltage [kV]	29
AC test voltage (control cores) [kV]	2
Nominal voltage U [V]	15,000

THERMAL PARAMETERS

Max. conductor temperature [°C]	90
Max. conductor temperature at short circuit [°C]	250
Ambient temperature fix installation (min) [°C]	-40
Ambient temperature fix installation (max) [°C]	80
Ambient temperature flexible installation (min) [°C]	-35
Ambient temperature flexible installation (max) [°C]	60

CHEMICAL PARAMETERS

Flame retardant	In accordance with EN/IEC 60332-1-2
Oil resistant	acc. IEC/EN 60811-404
Ozone resistance	Yes
Resistant to UV	Yes
Sea water resistance	Yes

MECHANICAL PARAMETERS

Torsional stress +/- [°/m]	25
Permanent tensile strength (rule)	20 N/mm ² static 30 N/mm ² dynamic
Travel speed	- Gantry (reeling operation): no restriction. For speeds beyond 240 m/min it is recommended to consult the cable manufacturer
Bending radius (rule)	Acc. to VDE 0298-3: 6 X D fixed installation 10 X D flexible operation 20 X D min distance with S-type directional changes

CABLE PROPERTIES

Basic construction	SAP code	External code	Diameter conductor [mm]	Cable diameter (min) [mm]	Cable diameter (max) [mm]	Cable weight [kg/km]
3X4AWG+2X8AWG+ 1X8AWG	20004758	5DK8407	6.8	54.9	58.9	4,300
3X2AWG+2X6AWG+ 1X8AWG	20095177	5DK8458	8.4	58.6	62.6	5,530
3X1AWG+2X5AWG+1X8AWG	20505533	5DK8***	9.5	61.8	65.8	6,200
3X1/0AWG+2X4AWG+1X8AWG	20431801	5DK8***	10.6	64.5	68.5	7,130
3X2/0AWG+2X3AWG+1X8AWG*RED	20004761	5DK8431	11.8	67.7	71.7	7,950
3X3/0AWG+2X2AWG+1X8AWG	20454961	5DK8***	13.5	72	76	9,150
3X4/0AWG+2X1AWG+1X8AWG		5DK8***	15	77.5	81.5	10,800

CABLE PROPERTIES ELECTRICAL / MECHANICAL

Basic construction	SAP code	External code	Max. tensile strength [N]	Max. tensile strength during acceleration [N]	Current carrying capacity [A]
3X4AWG+2X8AWG+ 1X8AWG	20004758	5DK8407	1,270	1,905	132
3X2AWG+2X6AWG+ 1X8AWG	20095177	5DK8458	2,020	3,030	176
3X1AWG+2X5AWG+1X8AWG	20505533	5DK8***	2,540	3,810	204
3X1/0AWG+2X4AWG+1X8AWG	20431801	5DK8***	3,210	4,815	236
3X2/0AWG+2X3AWG+1X8AWG*RED	20004761	5DK8431	4,050	6,075	273
3X3/0AWG+2X2AWG+1X8AWG	20454961	5DK8***	5,100	7,650	315
3X4/0AWG+2X1AWG+1X8AWG		5DK8***	6,430	9,645	364

SUSTAINABILITY COMMITMENT

Our commitment to a low-carbon future remains unwavering as we strive to create sustainable solutions while upholding quality standards. We prioritize sustainability and environmental protection in our daily operations, collaborating with local communities to ensure workplace safety and safeguard the areas we operate in.

Sustainability and environmental responsibility is evident also in our **packaging** solutions across the CEE region. We use fully recyclable drum cover foils to minimize environmental impact. Our packaging for rings is made from 30% recycled materials, supporting a circular economy. Additionally, our boxes are made from recyclable, environment-friendly cardboard, promoting eco-conscious choices. By choosing Prysmian, you are not only selecting high-quality products but also contributing to a greener future.

Check for more details about our sustainability commitment here: [Sustainability report and responsibility](#).



Current carrying capacity acc. VDE 0298-4, installed free in air at 30°C ambient temperature