

Heavy Duty/Extra Heavy Duty Flexible Cables



APPLICATION

- Flexible pump cable
- Heavy duty construction site leads
- Oil rigs
- Generator supply cables

DESIGN

PROTOMONT heavy duty elastomer flexible cables are designed for aggressive environments in open cut mining and quarries, industry and construction sites as well as agricultural use where heavy mechanical stresses occur.

PROTOMONT cables consist of finely stranded tinned copper conductors laid up to provide a flexible design. Between the elastomer inner and outer sheaths there is an overall tinned copper screen.

R-EP-90 elastomer insulation enables improved current carrying capacities and a specially compounded XHD-PCP-90 outer sheath resists hard and abrasive surfaces. The cable is in accordance with the Australian Standard AS 1125, AS 3116, AS 3191 and DIN VDE 0250 pt 812 for NSSHoeu. Flame retardant to VDE and MSHA.

OPERATING TEMPERATURE

- Minimum permissible ambient temperature -40°C
- Maximum permissible conductor temperature 90°C
- Maximum permissible short circuit temperature 250°C
- Minimum ambient temperature for optimum fully flexible operation -25°C

CURRENT CARRYING CAPACITY

Current ratings are based on continuous operation at an ambient temperature of 40°C. At other temperatures these values must be converted using the following table.

°C	15	20	25	30	35	40	45	50	55	60	65	70	75	80
Factor	1.26	1.20	1.15	1.10	1.05	1.00	0.94	0.88	0.81	0.73	0.65	0.57	0.47	0.34

VOLTAGE RATING

- Rated Voltage: $U_0/U = 0.6/kV$
- Maximum operating voltages in:
 - 3 phase AC operation $U_0/U = 0.7/1.15kV$
 - DC operation $U_0/U = 0.9/1.73kV$
- AC test voltage = 2.5kV

* The cable is designated 450/750V in accordance with VDE/IEC and meets or exceeds the Australian Standard AS 3116 for the voltage rating of 0.6/1kV.

MINIMUM BENDING RADII

The following minimum bending radii should be observed to ensure operating reliability.

- For fixed installation 4 x cable diameter
- When freely flexing 5 x cable diameter

Note: For force guided and reeling applications please refer to Siemens CORDAFLEX (K) information.

TENSILE STRENGTH

The maximum allowable tensile stress is 15N/mm². This ensures no conductor damage will occur in operation.

CORE COLOUR IDENTIFICATION

- 4 Core blue, brown, black, green/yellow
- 5 Core red, white, blue, black, green/yellow

Selection and Ordering Data

5 CORE OVERALL PROTOMONT SCREENED (F)

	Number of Cores x Conductor Size	Part No.	Approx. No. of Strands x Max. Strand Diameter	Diameter of Bare Conductor Max.	Cable Overall Diameter	Cable Weight	Unenclosed Touching
	mm ²		mm	mm	mm	kg/km	A
PROTOMONT Screened	5 x 2.5/2.5	5DL2 710	50 x 0.26	2.6	15.8	540	26
	5 x 4/4	5DL2 711	56 x 0.31	3.2	18.8	680	35
	5 x 6/6	5DL2 712	84 x 0.31	3.9	20.4	910	45
	5 x 10/10	5DL2 713	84 x 0.41	5.1	24.6	1320	62
	5 x 16/16	5DL2 714	126 x 0.41	6.3	30.0	1955	83

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	mm ²		mm	mm	mm	kg/km	A
PROTOMONT Screened	5 x 1.5/1.5	5DL2 808	30 x 0.26	1.8	15.4	375	19
	5 x 2.5/2.5	5DL2 810	50 x 0.26	2.6	18.4	540	26
	5 x 4/4	5DL2 811	56 x 0.31	3.2	20.5	680	35
	5 x 6/6	5DL2 812	84 x 0.31	3.9	23.1	910	45
	5 x 10/10	5DL2 813	80 x 0.41	5.1	27.2	1320	62
	5 x 16/16	5DL2 814	126 x 0.41	6.3	32.4	1955	83
	5 X 25/25	5DL2 815	196 x 0.41	8.0	39.1	2675	110