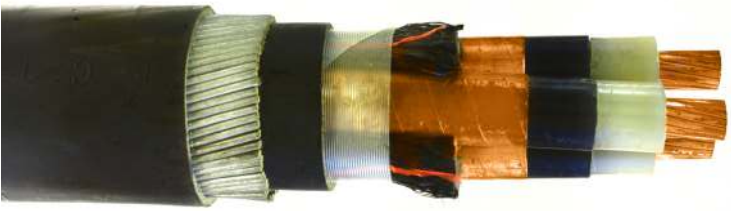
PRYSMIAN

A brand of the Prysmian Group

BS6622/BS7835 Three Core Armoured 33kV XLPE Stranded Copper Conductors

STANDARD MV POWER CABLES



CABLE DESCRIPTION

Conductor

Compact circular stranded copper conductor complying with BS EN 60228 Class 2.

Conductor Screen

Extruded semi-conducting compound bonded to the insulation and applied in the same operation as the insulation.

Insulation

Extruded cross-linked polyethylene (XLPE) suitable for operation at a conductor temperature of 90°C.

Insulation Screen

Extruded semi-conducting compound applied in the same operation as the insulation. Cold strippable screens are supplied as a standard but fully bonded screens may be provided if specified.

Metallic Screen

Copper tapes. Complete cover.

Laying up

Three cores laid up with polypropylene string fillers to form a compact circular cable.

Tape Binders

Sheath

Extruded black polyvinyl chloride (PVC) or Low Smoke Zero Halogen (LSOH) compound is supplied as standard. Alternative materials may be provided if specified.

Armouring

Single layer of galvanised circular steel wires.

Oversheath

Extruded black polyvinyl chloride (PVC) or Low Smoke Zero Halogen (LSOH) compound is supplied as standard. Alternative materials may be provided if specified e.g medium density polyethylene (MDPE).

Constructional Data

Cross-sectional area mm²	Minimum average thickness of insulation mm	Nominal thickness of PVC/LSOH bedding mm	Nominal diameter of armoured wires mm	Nominal thickness of PVC/LSOH oversheath mm	Approx. overall diameter of cable mm
70	8	1.8	3.15	3.5	81.0
95	8	1.9	3.15	3.6	85.0
120	8	2.0	3.15	3.7	88.5
150	8	2.0	3.15	3.8	92.0
185	8	2.1	3.15	3.9	96.0
240	8	2.2	3.15	4.1	101.0
300	8	2.3	3.15	4.3	106.5
400	8	2.4	3.15	4.5	114.0

Installation Data

Cross-sectional area mm²	Approximate cable weight kg/m	Nominal drum length m	Nominal internal diameter of twin wall ducts mm
70	9.8	350	125
95	11.1	300	125
120	12.3	250	125
150	13.4	250	125
185	15.0	250	150
240	17.2	250	150
300	19.7	250	150
400	23.1	250	150

Electrical Data

Cross-sectional area mm²	Maximum DC resistance of conductor at 20°C µOhms/m	Maximum AC resistance of conductor at 90°C µOhms/m
70	268	342
95	193	246
120	153	195
150	124	158
185	99.1	126
240	75.4	97
300	60.1	77
400	47.0	60

Ratings Data

Cross-sectional area mm²	Current Ratings:			Short circuit ratings	
	Laid direct in ground Amps	Drawn into twin wall ducts Amps	Laid in air Amps	One second short circuit rating of conductor kA	One second short circuit rating of armour kA
70	255	215	290	10.0	19.3
95	300	255	350	13.6	20.4
120	340	285	400	17.2	21.4
150	385	320	450	21.5	22.1
185	425	365	510	26.5	22.4
240	495	415	595	34.4	23.8
300	560	470	680	42.9	24.1
400	630	530	785	57.2	25.8

Current Ratings Conditions:

Ground temperature	15°C
Ambient temperature(air)	25°C
Depth of burial	0.8m
Thermal resistance of soil	1.2°Cm/W

THORNE & DERRICK INTERNATIONAL
Thorne & Derrick
+44 (0) 191 410 4292
www.powerandcables.com