

BS6622/BS7835 Single Core Armoured 22kV XLPE Stranded Copper Conductor

CABLE CHARACTERISTICS



Bending radius $r=15D$

CABLE DESCRIPTION

1.CONDUCTOR

Compact circular stranded copper conductor complying with BS6360 Class 2.

CONDUCTOR SCREEN

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

2.INSULATION

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

3.INSULATION SCREEN

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

4.METALLIC SCREEN

Copper tapes applied overlapped to provide an earth fault current path.

5.BEDDING SHEATH

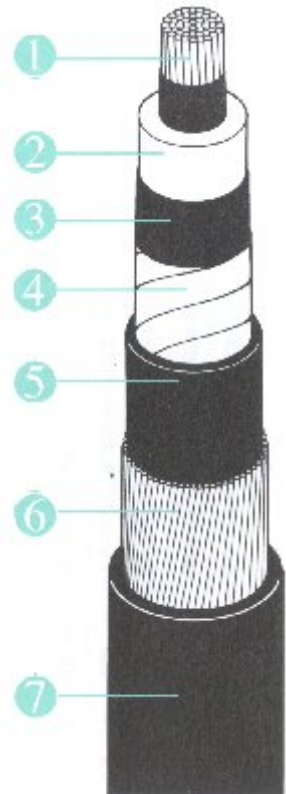
Extruded black polyvinyl chloride (PVC) or Low Smoke Zero Halogen (LSOH) compound is supplied as standard. Alternative materials may be provided if specified.

6.ARMOURING

Single layer of circular aluminium wires.

7.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).



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Constructional Data

Cross-sectional area mm ²	Minimum average thickness of insulation mm	Nominal diameter over insulation mm	Nominal thickness of PVC/LSOH bedding mm	Nominal number and diameter of armoured wires no/mm	Nominal thickness of PVC/LSOH oversheath mm	Nominal overall diameter of cable mm
70	5.5	23.4	1.2	40/2.0	2	35.3
95	5.5	25.1	1.2	43/2.0	2.1	37.2
120	5.5	26.6	1.2	45/2.0	2.1	38.7
150	5.5	27.9	1.2	47/2.0	2.2	40.4
185	5.5	29.7	1.2	49/2.0	2.2	42.2
240	5.5	31.9	1.2	52/2.0	2.3	44.6
300	5.5	34.2	1.3	45/2.5	2.4	48.3
400	5.5	36.9	1.3	48/2.5	2.5	51.2
500	5.5	39.8	1.4	52/2.5	2.6	54.5
630	5.5	43.2	1.4	55/2.5	2.8	58.3
800	Please refer to	our technical	department	for further	information	-
1000	Please refer to	our technical	department	for further	information	-

Installation Data

Cross-sectional area mm ²	Approximate cable weight kg/m	Nominal drum length m	Minimum bending radius mm	Nominal internal diameter of ducts mm
70	1.9	500	550	100
95	2.3	500	600	100
120	2.6	500	600	100
150	2.9	500	650	100
185	3.4	500	650	100
240	4.0	500	700	100
300	4.9	500	750	100
400	5.8	250	800	100
500	7.0	250	850	100
630	8.4	250	900	100
800	Please refer to	our technical	department for	further information
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Electrical Data

Cross-sectional area mm ²	Maximum DC resistance of conductor at 20°C μOhms/m	Maximum AC resistance of conductor at 90°C μOhms/m	Reactance at 50Hz μOhms/m	Impedance at 50Hz μOhms/m	Maximum Capacitance pF/m	Maximum charging current at normal voltage and frequency mA/m
70	268	343	141	370	200	0.80
95	193	248	133	281	222	0.89
120	153	196	128	234	241	0.96
150	124	159	125	201	257	1.03
185	99.1	128	120	174	280	1.12
240	75.4	98	116	151	307	1.23
300	60.1	80	113	137	336	1.34
400	47	64	109	125	370	1.48
500	36.6	51	106	117	406	1.62
630	28.3	42	102	110	449	1.8
800	Plaserefer	to our	technical	department	for further	information
1000	Plaserefer	to our	technical	department	for further	information

Ratings Data

Cross-sectional area mm ²	Current Ratings			Short Circuit Ratings	
	Laid in ground Amps	Drawn into ducts Amps	Laid in air Amps	One second short circuit rating of conductor kA	One second short circuit rating of copper tape screen kA
70	270	260	320	9.8	-
95	320	300	380	13.3	-
120	360	340	440	17.2	Typically
150	410	370	490	21.2	Less
185	450	400	560	26.6	Then
240	510	450	650	34.9	1kA
300	570	490	730	43.8	-
400	640	530	830	57.3	-
500	700	570	940	72.3	-
630	760	610	1050	91.2	-
800	Plaserefer to	our technical	department for	further infromation	-
1000	Plaserefer to	our technical	department for	further infromation	-

Current Rating Conditions:

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

Single core cables in trefoil, bonded and earthed at both ends.