

33kV Cable

Application

Power cables for use in power networks, underground and in cable ducting.

Standards

BS6622

Conductor

Class 2 stranded plain copper conductor to BS EN 60228:2005 (previously BS6360)

Conductor Screen

Semi-conducting material

Insulation

XLPE (Cross-Linked Polyethylene)
Type GP8 to BS7655

Insulation Screen

Semi-conducting material

Metallic Screen

Individual and overall copper tape screen to BS6622

Filler

PETP (Polyethylene Terephthalate) fibres

Separator

Binding tape

Bedding

PVC (Polyvinyl Chloride) Type TM1 to BS7655

Armouring

Single core: AWA
(Aluminium Wire Armour)
Multi-core: SWA
(Steel Wire Armour)

Sheath

PVC (Polyvinyl Chloride) Type TM1 to BS7655

Sheath Colour

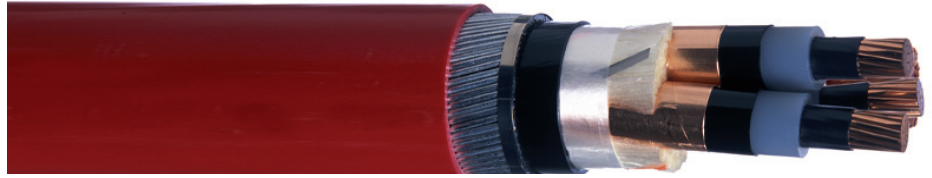
Red or Black

Voltage Rating

19000/33000V

Temperature Rating

0°C to +90°C



Dimensions

No. of Cores x Nominal Cross Sectional Area # x mm ²	Nominal Diameter mm			Nominal Weight kg/Km
	Under Armour	Over Armour	Overall	
1 x 70	32.6	36.6	41.0	2300
1 x 95	34.3	38.3	42.9	2650
1 x 120	35.9	39.9	44.5	3000
1 x 150	37.5	42.5	47.3	3500
1 x 185	39.3	44.3	49.3	4000
1 x 240	41.7	46.7	51.7	4650
1 x 300	44.2	49.2	54.4	5450
1 x 400	47.3	52.3	57.7	6350
1 x 500	50.5	55.5	61.1	7600
1 x 630	54.2	59.2	65.0	9150
1 x 800	60.5	65.5	71.6	11100
1 x 1000	65.0	70.0	76.5	13400
3 x 50	65.1	71.4	78.2	9150
3 x 70	68.8	75.1	82.1	10300
3 x 95	72.6	78.9	86.1	11600
3 x 120	76.3	82.6	90.0	12800
3 x 150	79.3	85.6	93.2	14050
3 x 185	83.4	89.7	97.5	15650
3 x 240	88.8	95.1	103.3	18200
3 x 300	93.9	100.2	108.8	21100
3 x 400	100.8	107.1	116.1	24200

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Minimum Bending Radius

Single cores: 15 x overall diameter
Three cores: 12 x overall diameter

(Single cores 12 x overall diameter and 3 cores 10 x overall diameter where bands are positioned adjacent to joint or terminations provided that the bending is carefully controlled by the use of a former)

Minimum Bending Radius

Single cores: 15 x overall diameter
Three cores: 12 x overall diameter

(Single cores 12 x overall diameter and 3 cores 10 x overall diameter where bands are positioned adjacent to joint or terminations provided that the bending is carefully controlled by the use of a former.)

Electrical Characteristics

**Copper Conductors (Insulated Armoured Cables to BS 6622)
Current Carrying Capacity (amperes)**

No. of Cores x Nominal Cross Sectional Area	Continuous Current Rating in Ground Amps		Continuous Current Rating in Ducts Amps		Continuous Current Rating in Air Amps	
	Trefoil	Flat	Trefoil	Flat	Trefoil	Flat
# x mm ²						
1 x 70	270	280	260	270	310	370
1 x 95	320	335	305	325	375	460
1 x 120	360	380	340	370	430	530
1 x 150	410	430	375	410	490	600
1 x 185	455	485	410	460	550	690
1 x 240	520	560	470	540	650	820
1 x 300	580	640	500	610	740	940
1 x 400	650	730	530	690	840	1100
1 x 500	710	830	570	780	930	1280
1 x 630	760	940	620	890	1040	1480
1 x 800	810	1060	660	990	1140	1690
1 x 1000	860	1170	690	1090	1230	1900
3 x 50	210	210	180	180	220	220
3 x 70	250	250	215	215	270	270
3 x 95	300	300	255	255	330	330
3 x 120	340	340	290	290	380	380
3 x 150	380	380	330	330	430	430
3 x 185	430	430	370	370	490	490
3 x 240	500	500	430	430	570	570
3 x 300	540	540	470	470	650	650
3 x 400	600	600	530	530	740	740

Conductors

Class 2 stranded conductors for single core and multi-core cables

Nominal Cross Sectional Area mm ²	Minimum Number of Wires in the Conductor						Maximum Resistance of Conductor at 20°C
	Circular		Circular Compacted		Shaped		
	Cu	Al	Cu	Al	Cu	Al	Plain Wires ohms/Km
70.00	19	19	12	12	12	12	0.2680
95.00	19	19	15	15	15	15	0.1930
120.00	37	37	18	15	18	15	0.1530
150.00	37	37	18	15	18	15	0.1240
185.00	37	37	30	30	30	30	0.0991
240.00	37	37	34	30	34	30	0.0754
300.00	61	61	34	30	34	30	0.0601
400.00	61	61	53	53	53	53	0.0470

Table in accordance with BS EN 60228:2005 (previously BS6360).

Datasheet continues»

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Correction Factors

Air Temperature	25°C	30°C	35°C	40°C	45°C	50°C	55°C
Correction Factor	1.00	0.96	0.92	0.88	0.83	0.78	0.73
Ground Temperature	10°C	15°C	20°C	25°C	30°C	35°C	40°C
Correction Factor	1.03	1.00	0.97	0.93	0.89	0.86	0.82
Ground Thermal Resistivity	0.9	1.0	1.2	1.5	2.0	2.5	3.0
Correction Factor	1.06	1.04	1.00	0.92	0.82	0.74	0.68
Depth of Laying m	0.80	1.00	1.25	1.50	1.75	2.00	2.50
Correction Factor	1.00	0.97	0.95	0.94	0.93	0.91	0.90