

3-Core, Screened Lead Sheathed Armoured, 6350/11000 Volt to BS6480

CABLE DESCRIPTION

1.CONDUCTOR

Compacted sector shaped stranded copper conductor complying with BS6360 Class 2

2.SEMI-CONDUCTING TAPE

Semi-conducting carbon paper tapes

3.INSULATION

Layers of paper tapes applied helically and mass impregnated with non-draining insulating compound (M.I.N.D.)

4.SEMI-CONDUCTING TAPE

Semi-conducting carbon paper tapes applied in combination with metallised paper tapes over the core insulation

5.METALLISED PAPER TAPE

Semi-conducting carbon paper tapes applied in combination with metallised paper tapes over the core insulation

6.LAYING UP

Three cores laid up with paper fillers and bound with copper woven fabric tapes

7.COPPER WOVEN FABRIC TAPE

Bound with copper woven fabric tape

8.LEAD ALLOY 'E'

Extruded lead alloy E sheath supplied as standard

9.BEDDING

textile bedding comprising of layers of bitumanised hessian and paper tapes is supplied as standard. An extruded PVC bedding may be provided with PVC oversheath.

10.STEEL WIRE ARMOUR

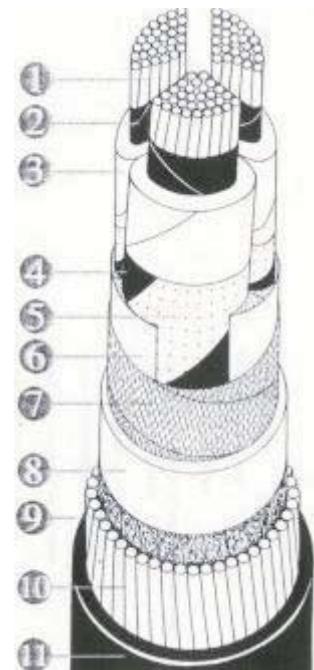
Single layer of round steel wire armour is supplied as standard. Double steel tape armour or double wire armour may be provided if requested. Additional corrosion protection in the form of bitumen compound applied to the armour may also be provided if requested.

11.SHEATH

Extruded polyvinylchloride (PVC) is supplied as standard. Textile servings with whitewash finish may be provided if requested.



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Constructional Data

Cross-Sectional Area mm ²	Minimum thickness of insulation between conductor and screen mm	Nominal thickness of sheath mm	Nominal diameter over sheath mm	Approximate number and diameter of armour wires no/mm	Nominal external diameter of completed SWA cable mm
25	2.8	1.5	32.2	51/2.0	43.2
35	2.8	1.5	31.2	49/2.0	42.2
50	2.8	1.6	33.5	53/2.0	44.5
70	2.8	1.7	36.8	46/2.5	48.8
95	2.8	1.8	40.2	50/2.5	52.2
120	2.8	1.9	43.2	53/2.5	55.2
150	2.8	2.0	46.0	56/2.5	58.0
185	2.8	2.1	49.4	60/2.5	61.4
240	2.8	2.2	54.1	65/2.5	66.1
300	2.8	2.4	58.6	56/3.15	71.9
400	2.8	2.6	64.1	61/3.15	77.4

Installation Data

Cross-Sectional Area mm ²	Approximate cable weight kg/m	Minimum bending radius mm	Nominal internal diameter of ducts mm
25	5.1	550	100
35	5.2	550	100
50	5.9	550	100
70	7.5	600	100
95	8.8	650	100
120	10.1	700	100
150	11.4	700	100
185	13.2	750	100
240	15.7	800	125
300	19.4	900	125
400	23.1	950	125

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Electrical Data

Cross-Sectional Area mm ²	Maximum DC resistance of conductor at 20 °C μ Ω/m	Maximum AC resistance of conductor at maximum conductor temperature (70 °) μ Ω/m	Reactance at 50Hz μ Ω/m	Maximum capacitance pF/m	Maximum charging current at nominal voltage and frequency mA/m
25	727	870	107	360	0.72
35	524	628	99.5	410	0.82
50	387	464	95.5	460	0.92
70	268	321	91	530	1.06
95	193	232	87	600	1.20
120	153	184	84.5	670	1.34
150	124	150	82.5	730	1.46
185	99.1	120	81	810	1.62
240	75.4	92.1	78.5	900	1.80
300	60.1	74.3	77.0	1000	2.00
400	47.0	59.4	75.5	1120	2.24

Ratings Data

Cross - Sectional Area mm ²	Sustained current ratings			Short Circuit ratings		Maximum conductor temperature			Sheath loss of three-phase circuit at normal frequency and at maximum current rating			Combined sheath and armour losses at normal frequency and at maximum current rating		
	Laid direct in ground Amps	Drawn into ducts Amps	Laid in air Amps	One second short circuit rating of conductor (160 °C final) kA	One second short circuit rating of lead sheath (160 °C final) kA	Laid direct in ground °C	Drawn into ducts °C	Laid in air °C	Laid direct in ground W/m	Drawn into ducts W/m	Laid in air W/m	Laid direct in ground W/m	Drawn into ducts W/m	Laid in air W/m
25	125	110	120	3.1	3.1	70	70	70	0.1	0.1	0.1	0.2	0.1	0.2
35	150	130	145	4.0	3.0	70	70	70	0.1	0.1	0.1	0.2	0.2	0.2
50	180	155	175	5.5	3.5	70	70	70	0.1	0.1	0.1	0.3	0.2	0.3
70	220	185	220	8.0	4.1	70	70	70	0.1	0.1	0.1	0.5	0.4	0.5
95	265	225	265	11.0	4.7	70	70	70	0.2	0.2	0.2	0.8	0.6	0.8
120	300	255	310	14.0	5.4	70	70	70	0.3	0.2	0.3	1.2	0.9	1.3
150	340	285	350	17.1	6.0	70	70	70	0.4	0.3	0.4	1.6	1.1	1.7
185	380	325	400	21.5	6.8	70	70	70	0.5	0.4	0.6	2.2	1.6	2.5
240	435	375	475	28.3	7.9	70	70	70	0.7	0.5	0.9	3.3	2.5	4.0
300	485	420	540	35.2	9.3	70	70	70	1.0	0.8	1.3	5.3	4.0	6.6
400	550	470	620	45.4	11.0	70	70	70	1.6	1.2	2.0	7.8	5.7	9.8



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