Technical Specification Sheet

33 kV Single Core AL XLPE CWS MDPE cable BS7870-4.10

No of cores:	1
Conductor:	Aluminium Conductor, Circular Compacted
Insulation:	XLPE Insulation, Colour: Natural
Tape:	Semi-Conductive Water Blocking Tape
Screen:	Copper Wire Screen
Tape:	Copper Tape (O.H), Non-Conductive Water Blocking Tape
Sheath:	MDPE
Colour:	Black
Nominal C.S.A of copper wire screen including copper tape:	35 mm2
Max. DC resistance of metallic screen at 20°C:	0.524 Ω/km
Min bending radius:	20 x outer diameter
Rating Voltage: Uo/U (Um):	19 / 33 (36) KV
Temperature range:	Maximum conductor operating Temp.: 90°C Maximum screen operating temperature:80°C Maximum Conductor Temperature During S.C: 250°C
Metallic Screen S.C.C for 1 sec:	4.16 kA
Current Carrying Capacity:	* Laying Conditions at Trefoil formation: Soil Resistivity: 1.2 C.m/W Burial Depth: 0.5m Ground Temperature: 35°C Air Temperature: 40°C
Standards:	All routine tests required by BS 7870-4.10 are performed on the cable & a test certificate will be supplied on request. Insulation thickness will be measured and tested according to BS 7870-4.10:1999 clause no. 4.2.3. Cable is longitudinally watertight at the metallic screen BS EN 60228 , BS 7870-4.10

Cable Size mm^2	Approx. conductor diameter mm	Approx. diameter over insulation mm	Approx. Diameter over metallic screen (after copper tape) mm	Approx. Cable Outer diameter mm	Approx. Cable Weight kg/km	Conductor DC Resistance at 20 °C ohm/km	Conductor AC resistance at max operating temp and 50 HZ ohm/km	
70	9.8	28.2	31.1	36.1	1270	0.443	0.5682	
95	11.3	29.7	32.6	37.8	1400	0.32	0.4105	
120	12.7	31.1	34	39.2	1515	0.253	0.3247	
150	-	-	-	-	-	-	-	
185	15.8	34.2	37.1	42.5	1805	0.164	0.2107	
240	-	-	-	-	-	-	-	
300	20.5	38.9	41.8	47.6	2320	0.1	0.1294	
400	-	-	-	-	-	-	-	
500	-	-	-	-	-	-	-	
630	-	-	-	-	-	-	-	

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Electrical Data

Cable Size mm^2	Inductance mH/km	Reactance at 50 Hz ohm/km	Capacitance µF/km	Charging current Amp/km	Dielectric losses W/km/phase	Conductor S.C.C for 1 sec kA	Cables are protected from direct solar radiation and no other thermal sources in the neighbourhood. When laid in:	
							Ground A	Free Air A
70	0.455	0.143	0.157	0.934	71.01	6.6	188	204
95	0.436	0.137	0.17	1.017	77.28	8.9	222	246
120	0.419	0.132	0.183	1.093	83.12	11.2	254	284
150	-	-	-	-	-	-	-	-
185	0.389	0.147	0.211	1.261	95.85	17.3	321	373
240	-	-	-	-	-	-	-	-
300	0.36	0.113	0.253	1.512	114.88	28.1	421	511
400	-	-	-	-	-	-	-	-
500	-	-	-	-	-	-	-	-
630	-	-	-	-	-	-	-	-

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