



UNIWIRED CABLES

LT (XLPE) POWER CABLES



7098 (Pt-1) CM/
L NO. 8400009106



LT (XLPE) POWER CABLE

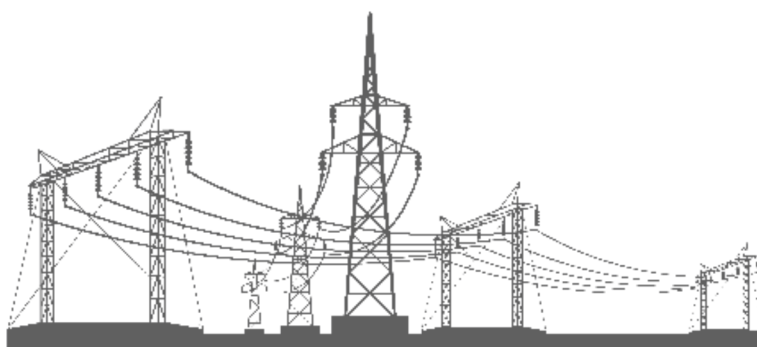


Power Cables with XLPE Insulation for power transmission, with Voltage grade 650/1100 volts (U/U) with or without HR/FRLS properties. Conforming to standard specification like IS 7098 (Pt.-1), IEC 502.

Range of LT Power cables from single core (upto 600 sq. mm) & Multicore upto 3.5/4 core with Aluminium / Copper (Solid Standard Circular/Compacted/Sector Shaped Conductor with XLPE Insulation, taped/extruded inner sheath, Galvanized Steel Wire/Strip/Double Helical Steel tape (Aluminium wire armouring for single core cable with usually black outer sheath or as per purchaser specification.



SHORT CIRCUIT RATING for 1 Sec.			MAXIMUM A.C/D.C RESISTANCE OF CONDUCTOR IN OHM / KM								
Nom. C/S Area of Cond.	Aluminium conductor	Copper Conductor	Nom. C/S Area of Cond.	Minium No. of Wires				Max. D.C Resistance		Max. A.C Resistance	
				Circular Conductor (Non Compacted)		Compacted Circular/ Shaped Conductor		Copper	Aluminium	Copper	Aluminium
								At 20 Deg.C	At 90 Deg.C	At 20 Deg.C	At 90 Deg.C
Sqmm	K Amps	K Amps	Sqmm	Copper	Aluminium	Copper	Aluminium	Ohm/Km	Ohm/Km	Ohm/Km	Ohm/Km
1.5	0.141	0.215	1.5	3	3	-	-	12.1	15.49	18.18	23.17
2.5	0.235	0.358	2.5	3	3	-	-	7.41	9.48	12.1	15.49
4	0.376	0.572	4	7	3	-	-	4.61	5.9	7.41	9.48
6	0.564	0.858	6	7	3	-	-	3.08	3.94	4.61	5.90
10	0.940	1.430	10	7	7	-	-	1.83	2.34	3.08	3.94
16	1.504	2.288	16	7	7	-	-	1.15	1.47	1.91	2.44
25	2.350	3.575	25	7	7	6	6	0.727	0.931	1.20	1.54
35	3.29	5.01	35	7	7	6	6	0.524	0.671	0.868	1.111
50	4.70	7.15	50	19	19	6	6	0.387	0.495	0.641	0.820
70	6.58	10.01	70	19	19	12	12	0.268	0.343	0.443	0.567
95	8.93	13.59	95	19	19	15	15	0.193	0.247	0.320	0.410
120	11.28	17.16	120	37	37	18	15	0.153	0.196	0.253	0.324
150	14.10	21.45	150	37	37	18	15	0.124	0.159	0.206	0.264
185	17.39	26.46	185	37	37	30	30	0.0991	0.1268	0.1640	0.2099
240	22.56	34.32	240	61	37	34	30	0.0754	0.0965	0.1250	0.1600
300	28.20	42.90	300	61	61	34	30	0.0601	0.0769	0.1000	0.1280
400	37.60	57.20	400	61	61	53	53	0.0470	0.0602	0.0778	0.0996
500	47.00	71.50	500	61	61	53	53	0.0366	0.0468	0.0605	0.0774
630	59.22	90.09	630	91	91	53	53	0.0283	0.0362	0.0469	0.0600
800	75.20	114.40	800	91	91	53	53	0.0221	0.0283	0.0367	0.0470
1000	94.00	143.00	1000	91	91	53	53	0.0176	0.0225	0.0291	0.0372



LT (XLPE) POWER CABLE



LT XPLE CABLES 1.1 KV GRADE							
Nom. Area of conductor Sqmm	Capacitance				Reactance at 50 Hz		
	Single Core Cable		Twin Core Cable	Multi Core Cable	Single Core Cable		Twin & Multicore Cable
	Unarmoured mF/Km	Armoured mF/Km	mF/Km	mF/Km	Unarmoured (Ohm/Km)	Armoured (Ohm/Km)	(Ohm/Km)
1.5000	0.1900	-	0.0510	0.1500	0.1550	-	0.1070
2.5000	0.2400	-	0.0580	0.1800	0.1420	-	0.0850
4.0000	0.2900	-	0.0650	0.2200	0.1320	-	0.0927
6.0000	0.3400	-	0.0710	0.2500	0.1270	-	0.0884
10.0000	0.4300	0.3200	0.0810	0.3100	0.1140	0.1340	0.0837
16.0000	0.5100	0.3800	0.0880	0.3600	0.1080	0.1250	0.0808
25.0000	0.4900	0.3800	0.0890	0.4100	0.0103	0.1200	0.0805
35.0000	0.5700	0.4400	0.0960	0.4700	0.0986	0.1140	0.0783
50.0000	0.5800	0.4600	0.0980	0.5000	0.0937	0.1080	0.0750
70.0000	0.6300	0.5100	0.1000	0.5300	0.0900	0.1020	0.0740
95.0000	0.7300	0.5900	0.1100	0.6100	0.0865	0.1000	0.0724
120.0000	0.7400	0.6100	0.1100	0.6300	0.0841	0.0968	0.0712
150.0000	0.7300	0.6100	0.1100	0.6000	0.0839	0.0941	0.0716
185.0000	0.6900	0.5900	0.1100	0.6000	0.0836	0.0932	0.0718
240.0000	0.7400	0.6400	0.1100	0.6300	0.0813	0.0900	0.0710
300.0000	0.8000	0.6900	0.1200	0.6700	0.0795	0.0881	0.0705
400.0000	0.8300	0.7000	0.1200	0.6700	0.0787	0.0873	0.0704
500.0000	0.8300	0.7100	0.1200	0.6900	0.0779	0.0859	0.0702
630.0000	0.8700	0.7500	0.1100	0.7300	0.0785	0.0843	0.0698
800.0000	0.9200	0.7800	-	-	0.0755	0.0826	-
1000.0000	0.9400	0.8100	-	-	0.0752	0.0825	-

Note: Conductors are compacted as per class 2 of IS & 8130.

The data given above are generally as per IS:7098(t t-I)

LT XLPE CABLES																
1 Core 1.1 KV Aluminium/Cooper conductor XLPE Armoured/Unarmoured Power Cable																
	Unarmoured			Armoured							Unarmoured					
Cross Sectional Area (Nom.)	Nom. Thickness of Insulation	Nom. Thickness of PVC Outersheath	Overall dia (app.)	Thickness of insulation (nom.)	Nominal Dimension of Armour		Min. Thickness of outer		overall dia. (app.)		Net. Wt. of cable		Net. Wt. of cable			
					wire	Strip	wire	strip	wire	strip	conductor		Wire		Strip	
											Al.	Cu.	Al.	Cu.	Al.	Cu.
Sqmm	mm	mm	mm	sqmm	mm.	mm	mm	mm	mm	mm	Kg/Km	Kg/Km	Kg/Km	Kg/Km	Kg/Km	Kg/Km
25	0.9000	1.8	12.0000	1.2000	1.4000	-	1.2400	-	14.0000	-	180	330	250	390	-	-
35	0.9000	1.8	13.0000	1.2000	1.4000	-	1.2400	-	15.0000	-	210	420	290	490	-	-
50	1	1.8	15	1.3	1.4	-	1.2400	-	17	-	270	550	350	620	-	-
70	1.1	1.8	16	1.4	1.4	-	1.2400	-	19	-	350	750	440	830	-	-
95	1.1	1.8	18	1.4	1.6	4x0.8	1.4	1.4	22	21	440	1010	580	1120	540	1080
120	1.2	1.8	20	1.5	1.6	4x0.8	1.4	1.4	24	23	530	1250	680	1360	640	1320
150	1.4	2	22	1.7	1.6	4x0.8	1.4	1.4	25	24	650	1540	790	1630	740	1580
185	1.6	2	24	1.9	1.6	4x0.8	1.4	1.4	28	26	790	1900	950	2000	890	1940
240	1.7	2	27	2	1.6	4x0.8	1.4	1.4	30	30	980	2440	1150	2530	1090	2470
300	1.8	2	30	2.1	1.6	4x0.8	1.56	1.56	33	32	1180	3030	1380	3120	1320	3060
400	2	2.2	33	2.4	2	4x0.8	1.56	1.56	38	36	1510	3850	1800	4020	1650	3870
500	2.2	2.2	36	2.6	2	4x0.8	1.56	1.56	41	39	1870	4870	2160	5010	2000	4850
630	2.4	2.2	40	2.8	2	4x0.8	1.72	1.72	46	44	2340	6230	2690	6383	2510	6200
800	2.6	2.4	47	3.1	2	4x0.8	1.88	1.72	51	48	2950	7940	3350	8080	3110	7830
1000	2.8	2.6	51	3.3	2.5	4x0.8	2.04	1.88	56	54	3660	9910	4250	10170	3820	9740

Note: Conductors are compacted as per class 2 of IS & 8130.

The data given above are generally as per IS:7098(t t-I)

LT (XLPE) POWER CABLE



LT XLPE CABLES																	
2Core 1.1 KV Aluminium /Copper conductor XLPE insulated Unarmoured / Armroured Power Cables																	
Unarmoured					Armoured						Net WT. of Cables						
Cross sectional area (nom.)	Thicknes s of insulation (nom.)	Min. Thicknes s of ó[t9 innershe ath	Nom. Thickess of ó[t9 outershe ath	hveralldia. (app.)	Nominal size of Armour		Minimum Thickness of outer sheath		Overall dia with armour								Unarmoured
					Wire	Strip	Wire	strip	wire	strip	conductor		Wire		Strip		
sqmm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Al. (Kg/km)	Cu (kg/km)	Al. (kg/km)	Cu. (kg/km)	Al. (kg/km)	Cu. (kg/km)
4	0.7	0.3	1.8	13	1.4	-	1.24	-	15.6	-	-	152	173	425	523	-	-
6	0.7	0.3	1.8	14	1.4	-	1.24	-	16.7	-	-	185	227	490	610	-	-
10	0.7	0.3	1.8	16.3	1.4	-	1.24	-	18.2	-	-	228	300	63	745	-	-
16	0.7	0.3	1.8	14.2	1.4	-	1.4	-	17.3	-	-	230	420	575	770	-	-
25	0.9	0.3	2	19.3	1.6	4x0.8	1.4	1.4	21.3	19.7	400	700	760	1040	570	860	
35	0.9	0.3	2	20.1	1.6	4x0.8	1.4	1.4	22.1	20.5	450	900	880	1280	670	1070	
50	1	0.3	2	22.4	1.6	4x0.8	1.4	1.4	24.2	22.8	590	1160	1040	1580	810	1350	
70	1.1	0.3	2.2	24.7	1.6	4x0.8	1.56	1.56	27.5	25.5	750	1580	1280	2070	1020	1800	
95	1.1	0.4	2.2	28.2	2	4x0.8	1.56	1.56	30.9	28.4	980	2120	1710	2790	1250	2340	
120	1.2	0.4	2.2	30.1	2	4x0.8	1.56	1.56	33	30.2	1170	2620	1990	3360	1490	2860	
150	1.4	0.4	2.2	33.3	2	4x0.8	1.72	1.72	36.5	33.9	1390	3170	2290	3990	1740	3430	
185	1.6	0.5	2.4	37	2	4x0.8	1.88	1.72	40	37	1720	3950	2730	4840	2090	4200	
240	1.7	0.5	2.6	40.5	2.5	4x0.8	2.04	1.88	44	40.2	2160	5090	3580	6360	2560	5340	
300	1.8	0.6	3.8	45.8	2.5	4x0.8	2.2	2.04	50.1	45.9	2630	6320	4190	7680	3050	6540	
400	2	0.6	3	49.1	2.5	4x0.8	2.36	2.36	54.2	50.2	3300	8010	5040	9500	3810	8270	

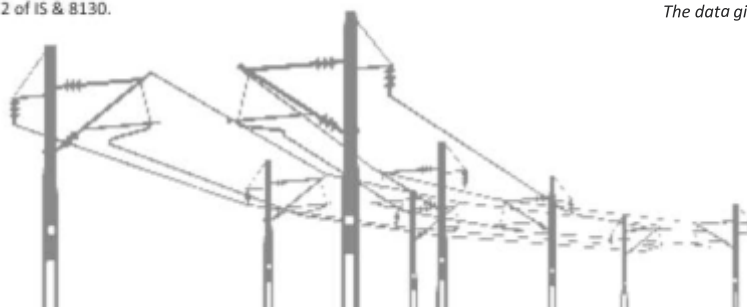
Note: Conductors are compacted as per class 2 of IS & 8130.

The data given above are generally as per IS:7098(Pt-I)

LT XLPE CABLES																	
3 core 1.1 KV Aluminium Copper conductor XLPE insulated unarmoured / Armoured Power Cables																	
Unarmoured					Armoured						Net WT. of Cables						
Cross sectional area (nom.)	Thickness of insulation (mm)	Min. Thickness of XLPE	Nom. Thickness of XLPE	Overall dia. (app.)	Nominal size of Armour		Minimum Thickness of outer sheath		Overall dia with armour								
					Wire	Strip	Wire	strip	wire	strip	Unarmoured conductor		Armoured Wire		Strip		
sqmm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Al. (Kg/km)	Cu (kg/km)	Al. (kg/km)	Cu. (kg/km)	Al. (kg/km)	Cu. (kg/km)
4	0.7	0.3	1.8	13	1.4	-	1.24	-	16.2	-	-	162	233	512	583	-	-
6	0.7	0.3	1.8	14	1.4	-	1.24	-	17.2	-	-	188	304	585	678	-	-
10	0.7	0.3	1.8	16.3	1.4	-	1.24	-	19.1	-	-	230	413	678	867	-	-
16	0.7	0.3	1.8	14.2	-	-	-	-	-	18.7	-	312	428	535	828	-	-
25	0.9	0.3	2	20.2	1.6	4x0.8	1.4	1.24	21	20.2	-	520	970	920	1350	720	1150
35	0.9	0.3	2	22.5	1.6	4x0.8	1.4	1.4	23.7	22.8	-	630	1270	1090	1690	840	1440
40	1	0.3	2	25.1	1.6	4x0.8	1.56	1.4	26.5	24.7	-	790	1640	1320	2140	1030	1840
70	1.1	0.3	2.2	29.3	2	4x0.8	1.56	1.4	31.2	28.8	-	1070	2310	1830	3000	1650	2530
95	1.1	0.4	2.2	31.6	2	4x0.8	1.56	1.56	33.6	31.1	-	1340	3050	2180	3800	1950	3270
120	1.2	0.4	2.2	36.1	2	4x0.8	1.72	1.56	38.5	35.8	-	1620	3790	2590	4640	2360	4040
150	1.4	0.4	2.4	39.7	2	4x0.8	1.88	1.72	42.1	39.1	-	1990	4670	3050	5590	2850	4900
185	1.6	0.5	2.6	43.8	2.5	4x0.8	2.04	1.88	47	43.2	-	2450	5800	3950	7120	3520	6020
240	1.7	0.5	2.8	47.1	2.5	4x0.8	2.2	2.04	50.1	46.4	-	3100	7510	4770	8950	4240	7620
300	1.8	0.6	3	52.4	2.5	4x0.8	2.36	2.2	55.2	51.8	-	3790	9320	5640	10880	5270	9480
400	2	0.7	3.2	59.1	3.2	4x0.8	2.68	2.52	63.4	58.5	-	4770	11830	7480	14170	-	11960

Note: Conductors are compacted as per class 2 of IS & 8130.

The data given above are generally as per IS:7098(Pt-I)



LT (XLPE) POWER CABLE



LT XLPE CABLES

3.5 core 1.1 KV Aluminium Copper conductor XLPE insulated unarmoured / Armoured Power Cables

Cross sectional area (nom.)	Unarmoured				Armoured						Net WT. of Cables					
	Thickness of insulation of conductor	Min. Thickness of insulation of conductor	Nom. Thickness of insulation of conductor	Overall dia. (app.)	Nominal size of Armour		Minimum Thickness of outer sheath		Overall dia with armour		Unarmoured conductor		Armoured			
	sqmm	mm	mm	mm	Wire	Strip	Wire	strip	wire	strip	Al. (Kg/km)	Cu (kg/km)	Wire		Strip	
													Al. (kg/km)	Cu. (kg/km)	Al. (kg/km)	Cu. (kg/km)
25/16	0.9/0.7	0.3	2	22.5	1.6	4x0.8	1.4	1.4	23.9	22.3	595	1150	1039	1560	814	1330
35/16	0.9/0.7	0.3	2	24	1.6	4x0.8	1.4	1.4	25.6	24	710	1440	1203	1890	962	1650
50/25	1.0/0.9	0.3	2	27.4	1.6	4x0.8	1.56	1.4	29	27	900	1910	1474	2430	1153	2110
70/35	1.1/0.9	0.4	2.2	31.8	2	4x0.8	1.56	1.56	34.1	31.8	1207	2660	2028	3410	1501	2880
95/50	1.1/1.0	0.4	2.2	35.5	2	4x0.8	1.56	1.56	37.8	35.2	1534	3540	2447	4350	1869	3770
120/70	1.2/1.1	0.4	2.2	37.9	2	4x0.8	1.72	1.72	40.1	37.9	1891	4470	2954	5400	2297	4740
15/70	1.4/1.1	0.5	2.4	42.9	2	4x0.8	1.88	1.72	45.2	42.5	2270	5360	3427	6360	2656	5590
185/95	1.6/1.1	0.5	2.6	46.4	2.5	4x0.8	2.04	1.88	49.9	45.9	2820	6740	4470	8180	3254	6970
240/120	1.7/1.2	0.6	2.8	52.6	2.5	4x0.8	2.2	2.04	55.5	51.8	3560	8690	5386	10240	4006	8860
300/150	1.8/1.4	0.6	3	56.5	2.5	4x0.8	2.36	2.2	59.2	55.9	4340	10770	6344	12430	4821	10910
400/185	2.0/1.6	0.7	3.4	65.2	3.2	4x0.8	2.68	2.52	69.1	64	5560	13740	8446	16190	6042	13790

Note: Conductors are compacted as per class 2 of IS & 8130.

The data given above are generally as per IS:7098(Pt-I)

LT XLPE CABLES

4 core 1.1 KV Aluminium Copper conductor XLPE insulated unarmoured / Armoured Power Cables

Cross sectional area (nom.)	Unarmoured				Armoured						Net WT. of Cables					
	Thickness of insulation of conductor	Min. Thickness of insulation of conductor	Nom. Thickness of insulation of conductor	Overall dia. (app.)	Nominal size of Armour		Minimum Thickness of outer sheath		Overall dia with armour		Unarmoured conductor		Armoured			
	sqmm	mm	mm	mm	Wire	Strip	Wire	strip	wire	strip	Al. (Kg/km)	Cu (kg/km)	Al. (kg/km)	Cu. (kg/km)	Al. (kg/km)	Cu. (kg/km)
4	0.7	0.3	1.8	16	1.4	-	1.24	-	17.6	-	182	282	562	662	-	-
6	0.7	0.3	1.8	17.7	1.4	-	1.24	-	19.2	-	217	366	627	776	-	-
10	0.7	0.3	1.8	18.5	1.4	-	1.24	-	20.5	-	260	512	767	1012	-	-
16	0.7	0.3	1.8	19.6	-	4x0.8	-	1.4	-	20.1	355	755	716	1055	-	-
25	0.9	0.3	2	22.5	1.6	4x0.8	1.4	1.4	23.9	23.1	650	1250	1110	1680	880	1450
35	0.9	0.3	2	24.6	1.6	4x0.8	1.4	1.4	26	24.5	790	1640	1320	2120	1050	1850
50	1	0.3	2	27.9	1.6	4x0.8	1.56	1.56	29.6	28	990	2130	1610	2690	1310	2390
70	1.1	0.4	2.2	32.1	2	4x0.8	1.56	1.56	34	31.6	1350	3010	2260	3820	1680	3240
95	1.1	0.4	2.2	35.5	2	4x0.8	1.72	1.56	38	35.1	1700	4000	2710	4880	2050	4220
120	1.2	0.5	2.4	39.6	2	4x0.8	1.88	1.72	42	39	2140	5030	3250	5990	2510	5250
150	1.4	0.5	2.6	42.9	2.5	4x0.8	2.04	1.88	46.2	42.6	2600	6160	4190	7570	3000	6380
185	1.6	0.5	2.8	48.2	2.5	4x0.8	2.2	2.04	51.5	47.8	3200	7670	4980	9210	3650	7880
240	1.7	0.6	3	54.7	2.5	4x0.8	2.36	2.2	57.6	53.9	4050	9920	6000	11560	4530	10090
300	1.8	0.7	3.2	60.6	3.15	4x0.8	2.52	2.36	64.5	59.4	4990	12370	7810	17490	5510	12500
400	2	0.7	3.6	68.2	3.15	4x0.8	2.84	2.68	72	67	6320	15740	9400	18320	6820	15740

Note: Conductors are compacted as per class 2 of IS & 8130.

The data given above are generally as per IS:7098(Pt-I)

