



LT XLPE  
INSULATED POWER  
CABLES

# LT XLPE Power Cables

**TABLE 5.1**

**TECHNICAL DETAILS FOR ZENIUM 1.1 KV  
1 CORE, ALUMINIUM / COPPER CONDUCTOR, XLPE INSULATED ARMoured CABLES**

Ref. Spec. : IS: 7098 Part1:1988

Size (Cross sectional Area)	Minimum No. of Strand in Conductor		Nominal Insulation Thickness	Flat Strip Armoured (A2XFaY / 2XFaY)					Round Wire Armoured (A2XWaY / 2XWaY)				
				Nominal Armour Strip Dimension	Minimum Outer Sheath Thickness	Approx. overall Dia of Cable	Approx. Weight of Cable		Nominal Dia of Armor Wire	Minimum Outer Sheath Thickness	Approx. overall Dia of Cable	Approx. Weight of Cable	
	With Al'm Cond.	With Cu Cond.					With Al'm Cond.	With Cu Cond.					
	A2XFaY	2XFaY					A2XWaY	2XWaY					
sqmm	No's	No's	mm	mm	mm	mm	Kg/Km	Kg/Km	mm	mm	mm	Kg/Km	Kg/Km
4	1/3	1/3	1.00	N/A	N/A	N/A	N/A	N/A	1.40	1.24	11	150	180
6	1/3	1/3	1.00	N/A	N/A	N/A	N/A	N/A	1.40	1.24	11	180	220
10	1/7	6	1.00	N/A	N/A	N/A	N/A	N/A	1.40	1.24	12	200	270
16	6	6	1.00	N/A	N/A	N/A	N/A	N/A	1.40	1.24	13	220	320
25	6	6	1.20	N/A	N/A	N/A	N/A	N/A	1.40	1.24	14	280	450
35	6	6	1.20	N/A	N/A	N/A	N/A	N/A	1.40	1.24	15	350	550
50	6	6	1.30	N/A	N/A	N/A	N/A	N/A	1.40	1.24	17	400	680
70	12	12	1.40	N/A	N/A	N/A	N/A	N/A	1.40	1.24	19	500	900
95	15	15	1.40	4 X 0.80	1.40	20	550	1150	1.60	1.40	21	620	1200
120	15	18	1.50	4 X 0.80	1.40	22	650	1400	1.60	1.40	23	720	1450
150	15	18	1.70	4 X 0.80	1.40	23	760	1650	1.60	1.40	25	850	1750
185	30	30	1.90	4 X 0.80	1.40	26	920	2050	1.60	1.40	27	1000	2100
240	30	34	2.00	4 X 0.80	1.40	28	1100	2550	1.60	1.40	29	1200	2650
300	30	34	2.10	4 X 0.80	1.56	31	1350	3200	1.60	1.56	32	1450	3250
400	53	53	2.40	4 X 0.80	1.56	35	1700	4000	2.00	1.56	37	1850	4200
500	53	53	2.60	4 X 0.80	1.56	38	2050	5000	2.00	1.56	40	2250	5250
630	53	53	2.80	4 X 0.80	1.72	42	2600	6400	2.00	1.72	44	2800	6650

**TABLE 5.2**

**TECHNICAL DETAILS FOR ZENIUM 1.1 KV  
1 CORE, ALUMINIUM / COPPER CONDUCTOR, XLPE INSULATED UN-ARMoured CABLES**

Size (Cross sectional Area)	Minimum No. of Strand in Conductor		Nominal Insulation Thickness	Minimum Outer Sheath Thickness	Approx. Overall Dia of Cable	Approx. Weight of Cable	
						With Al'm Cond. A2XY	With Cu Cond. 2XY
	Aluminium	Copper				Kg/Km	Kg/Km
sqmm	No's	No's	mm	mm	mm	Kg/Km	Kg/Km
4	1/3	1/3	0.70	1.80	9	110	130
6	1/3	1/3	0.70	1.80	10	120	160
10	1/7	6	0.70	1.80	11	150	210
16	6	6	0.70	1.80	10	150	250
25	6	6	0.90	1.80	12	190	350
35	6	6	0.90	1.80	13	230	450
50	6	6	1.00	1.80	14	280	600
70	12	12	1.10	1.80	16	370	800
95	15	15	1.10	1.80	18	450	1050
120	15	18	1.20	1.80	20	550	1250
150	15	18	1.40	2.00	22	660	1550
185	30	30	1.60	2.00	24	800	1900
240	30	34	1.70	2.00	26	1000	2450
300	30	34	1.80	2.00	29	1200	3000
400	53	53	2.00	2.20	33	1550	3800
500	53	53	2.20	2.20	36	1900	4850
630	53	53	2.40	2.20	41	2350	6150

The above data is approximate and subject to manufacturing tolerance

## LT XLPE Power Cables

**TABLE 5.3**

**TECHNICAL DETAILS FOR ZENIUM 1.1 KV  
2 CORE, ALUMINIUM / COPPER CONDUCTOR, XLPE INSULATED ARMoured CABLES**

Size (Cross sectional Area)	Minimum No. of Strand in Conductor		Nominal Insulation Thickness	Minimum Inner Sheath Thickness	Flat Strip Armoured (A2XFY / 2XFY)					Round Wire Armoured (A2XWY / 2XWY)				
					Nominal Armour Strip Dimension	Minimum Outer Sheath Thickness	Approx. overall Dia of Cable	Approx. Weight of Cable		Nominal Dia of Armor Wire	Minimum Outer Sheath Thickness	Approx. overall Dia of Cable	Approx. Weight of Cable	
	With Al'm Cond.	With Cu Cond.						With Al'm Cond.	With Cu Cond.					
	A2XFY	2XFY						A2XWY	2XWY					
sqmm	No's	No's	mm	mm	mm	mm	mm	Kg/Km	Kg/Km	mm	mm	mm	Kg/Km	Kg/Km
4	1/3	1/3	0.70	0.30	N/A	N/A	N/A	N/A	N/A	1.40	1.24	15	500	480
6	1/3	1/3	0.70	0.30	N/A	N/A	N/A	N/A	N/A	1.40	1.24	16	500	580
10	1/7	6	0.70	0.30	N/A	N/A	N/A	N/A	N/A	1.40	1.24	18	600	730
16	6	6	0.70	0.30	N/A	N/A	N/A	N/A	N/A	1.40	1.40	17	600	750
25	6	6	0.90	0.30	4 X 0.80	1.40	18	650	950	1.60	1.40	20	800	1050
35	6	6	0.90	0.30	4 X 0.80	1.40	20	750	1200	1.60	1.40	22	900	1300
50	12	6	1.00	0.30	4 X 0.80	1.40	22	900	1500	1.60	1.40	24	1050	1650
70	15	12	1.10	0.30	4 X 0.80	1.56	25	1100	1950	1.60	1.56	27	1300	2100
95	15	15	1.10	0.40	4 X 0.80	1.56	28	1350	2500	2.00	1.56	30	1750	2900
120	15	18	1.20	0.40	4 X 0.80	1.56	30	1600	3100	2.00	1.56	33	2000	3400
150	30	18	1.40	0.40	4 X 0.80	1.72	33	1900	3750	2.00	1.72	35	2300	4050
185	30	30	1.60	0.50	4 X 0.80	1.72	36	2250	4500	2.00	1.88	39	2750	4900
240	30	34	1.70	0.50	4 X 0.80	1.88	41	2800	5800	2.50	2.04	44	3600	6500
300	53	34	1.80	0.60	4 X 0.80	2.04	44	3300	7000	2.50	2.20	47	4200	7800
400	53	53	2.00	0.60	4 X 0.80	2.36	49	4100	9050	2.50	2.36	53	5050	9700

**TABLE 5.4**

**TECHNICAL DETAILS FOR ZENIUM 1.1 KV  
2 CORE, ALUMINIUM / COPPER CONDUCTOR, XLPE INSULATED UN-ARMoured CABLES**

Size (Cross sectional Area)	Minimum No. of Strand in Conductor		Nominal Insulation Thickness	Minimum Inner Sheath Thickness	Minimum Outer Sheath Thickness	Approx. Overall Dia of Cable	Approx. Weight of Cable	
							With Al'm Cond.	With Cu Cond.
	Aluminium	Copper					A2XY	2XY
sqmm	No's	No's	mm	mm	mm	mm	Kg/Km	Kg/Km
4	1/3	1/3	0.70	0.30	1.80	13	200	270
6	1/3	1/3	0.70	0.30	1.80	14	260	330
10	1/7	6	0.70	0.30	1.80	16	330	450
16	6	6	0.70	0.30	1.80	15	300	500
25	6	6	0.90	0.30	2.00	18	420	720
35	6	6	0.90	0.30	2.00	20	500	920
50	6	6	1.00	0.30	2.00	22	600	1200
70	12	12	1.10	0.30	2.00	24	780	1600
95	15	15	1.10	0.40	2.20	27	1000	2150
120	15	18	1.20	0.40	2.20	30	1200	2650
150	15	18	1.40	0.40	2.20	32	1400	3150
185	30	30	1.60	0.50	2.40	35	1750	3950
240	30	34	1.70	0.50	2.60	40	2200	5100
300	30	34	1.80	0.60	2.80	43	2700	6300
400	53	53	2.00	0.60	3.00	49	3350	9500

The above data is approximate and subject to manufacturing tolerance

## LT XLPE Power Cables

**TABLE 5.5**

**TECHNICAL DETAILS FOR ZENIUM 1.1 KV  
3 CORE, ALUMINIUM / COPPER CONDUCTOR, XLPE INSULATED ARMoured CABLES**

Size (Cross sectional Area)	Minimum No. of Strand in Conductor		Nominal Insulation Thickness	Minimum Inner Sheath Thickness	Flat Strip Armoured (A2XFY / 2XFY)					Round Wire Armoured (A2XWY / 2XWY)				
					Nominal Armour Strip Dimension	Minimum Outer Sheath Thickness	Approx. overall Dia of Cable	Approx. Weight of Cable		Nominal Dia of Armor Wire	Minimum Outer Sheath Thickness	Approx. overall Dia of Cable	Approx. Weight of Cable	
	With Al'm Cond.	With Cu Cond.						With Al'm Cond.	With Cu Cond.					
	A2XFY	2XFY						A2XWY	2XWY					
sqmm	No's	No's	mm	mm	mm	mm	mm	Kg/Km	Kg/Km	mm	mm	mm	Kg/Km	Kg/Km
4	1/3	1/3	0.70	0.30	N/A	N/A	N/A	N/A	N/A	1.40	1.24	16	600	520
6	1/3	1/3	0.70	0.30	N/A	N/A	N/A	N/A	N/A	1.40	1.24	17	500	600
10	1/7	6	0.70	0.30	N/A	N/A	N/A	N/A	N/A	1.40	1.24	19	600	780
16	6	6	0.70	0.30	4 X 0.80	1.24	18	600	880	1.60	1.40	20	780	1050
25	6	6	0.90	0.30	4 X 0.80	1.40	21	750	1200	1.60	1.40	22	950	1400
35	6	6	0.90	0.30	4 X 0.80	1.40	23	900	1500	1.60	1.40	24	1100	1750
50	6	6	1.00	0.30	4 X 0.80	1.40	26	1100	1900	1.60	1.56	27	1350	2200
70	12	12	1.10	0.30	4 X 0.80	1.56	29	1400	2600	2.00	1.56	32	1850	3100
95	15	15	1.10	0.40	4 X 0.80	1.56	32	1700	3350	2.00	1.56	34	2200	3900
120	15	18	1.20	0.40	4 X 0.80	1.56	35	2000	4100	2.00	1.72	38	2600	4750
150	15	18	1.40	0.40	4 X 0.80	1.72	39	2400	5050	2.00	1.88	41	3050	5700
185	30	30	1.60	0.50	4 X 0.80	1.88	43	2900	6200	2.50	2.04	47	4000	7300
240	30	34	1.70	0.50	4 X 0.80	2.04	48	3600	7900	2.50	2.20	52	4850	9150
300	30	34	1.80	0.60	4 X 0.80	2.20	53	4300	9750	2.50	2.36	56	5650	11100
400	53	53	2.00	0.60	4 X 0.80	2.52	60	5400	12400	3.15	2.68	64	7550	14500

**TABLE 5.6**

**TECHNICAL DETAILS FOR ZENIUM 1.1 KV  
3 CORE, ALUMINIUM / COPPER CONDUCTOR, XLPE INSULATED UN-ARMoured CABLES**

Size (Cross sectional Area)	Minimum No. of Strand in Conductor		Nominal Insulation Thickness	Minimum Inner Sheath Thickness	Minimum Outer Sheath Thickness	Approx. Overall Dia of Cable	Approx. Weight of Cable	
							With Al'm Cond.	With Cu Cond.
	Aluminium	Copper					A2XY	2XY
sqmm	No's	No's	mm	mm	mm	mm	Kg/Km	Kg/Km
4	1/3	1/3	0.70	0.30	1.80	14	230	310
6	1/3	1/3	0.70	0.30	1.80	15	300	400
10	1/7	6	0.70	0.30	1.80	17	360	540
16	6	6	0.70	0.30	1.80	18	400	680
25	6	6	0.90	0.30	2.00	20	550	1000
35	6	6	0.90	0.30	2.00	22	650	1300
50	6	6	1.00	0.30	2.00	25	800	1650
70	12	12	1.10	0.40	2.20	29	1100	2300
95	15	15	1.10	0.40	2.20	31	1350	3050
120	15	18	1.20	0.40	2.20	34	1650	3800
150	15	18	1.40	0.50	2.40	38	2050	4650
185	30	30	1.60	0.50	2.60	42	2500	5800
240	30	34	1.70	0.60	2.80	48	3150	7500
300	30	34	1.80	0.60	3.00	52	3850	9250
400	53	53	2.00	0.70	3.20	59	4800	11800

The above data is approximate and subject to manufacturing tolerance

## LT XLPE Power Cables

**TABLE 5.7**

**TECHNICAL DETAILS FOR ZENIUM 1.1 KV  
3.5 CORE, ALUMINIUM / COPPER CONDUCTOR, XLPE INSULATED ARMoured CABLES**

Size (Cross sectional Area)	Minimum No. of Strand in Conductor		Nominal Insulation Thickness	Minimum Inner Sheath Thickness	Flat Strip Armoured (A2XFY / 2XFY)					Round Wire Armoured (A2XWY / 2XWY)				
					Nominal Armour Strip Dimension	Minimum Outer Sheath Thickness	Approx. overall Dia of Cable	Approx. Weight of Cable		Nominal Dia of Armor Wire	Minimum Outer Sheath Thickness	Approx. overall Dia of Cable	Approx. Weight of Cable	
	With Al'm Cond.	With Cu Cond.						With Al'm Cond.	With Cu Cond.					
	Aluminium	Copper			mm	mm	mm	mm	mm	Kg/Km	Kg/Km	mm	mm	mm
sqmm	No's	No's	mm	mm	mm	mm	mm	Kg/Km	Kg/Km	mm	mm	mm	Kg/Km	Kg/Km
3x25+16	6/6	6/6	0.90/0.70	0.30	4 X 0.80	1.40	22	850	1400	1.60	1.40	24	1050	1600
3x35+16	6/6	6/6	0.90/0.70	0.30	4 X 0.80	1.40	24	1000	1700	1.60	1.40	26	1200	1950
3x50+25	6/6	6/6	1.00/0.90	0.30	4 X 0.80	1.40	27	1200	2200	1.60	1.56	29	1500	2500
3x70+35	12/6	12/6	1.10/0.90	0.40	4 X 0.80	1.56	31	1550	2950	2.00	1.56	33	2050	3500
3x92+50	15/6	15/6	1.10/1.00	0.40	4 X 0.80	1.56	35	1900	3900	2.00	1.56	37	2500	4450
3x120+70	15/12	18/12	1.20/1.10	0.40	4 X 0.80	1.72	38	2300	4850	2.00	1.72	41	3000	5500
3x150+70	15/12	18/12	1.40/1.10	0.50	4 X 0.80	1.72	42	2700	5750	2.00	1.88	45	3450	6500
3x185+95	30/15	30/15	1.60/1.10	0.50	4 X 0.80	1.88	47	3300	7150	2.50	2.04	50	4500	8400
3x240+120	30/15	34/18	1.70/1.20	0.60	4 X 0.80	2.04	53	4100	9150	2.50	2.20	56	5450	10500
3x300+150	30/15	34/18	1.80/1.40	0.60	4 X 0.80	2.20	58	4900	11250	2.50	2.36	61	6400	12750
3x400+185	53/30	53/30	2.00/1.60	0.70	4 X 0.80	2.52	66	150	14250	3.15	2.68	71	8550	16600

**TABLE 5.8**

**TECHNICAL DETAILS FOR ZENIUM 1.1 KV  
3.5 CORE, ALUMINIUM / COPPER CONDUCTOR, XLPE INSULATED UN-ARMoured CABLES**

Size (Cross sectional Area)	Minimum No. of Strand in Conductor		Nominal Insulation Thickness	Minimum Inner Sheath Thickness	Minimum Outer Sheath Thickness	Approx. Overall Dia of Cable	Approx. Weight of Cable	
							With Al'm Cond.	With Cu Cond.
	Aluminium	Copper					A2XY	2XY
sqmm	No's	No's	mm	mm	mm	mm	Kg/Km	Kg/Km
3X25+16	6/6	6/6	0.90/0.70	0.30	2.00	22	620	1150
3X35+16	6/6	6/6	0.90/0.70	0.30	2.00	24	750	1450
3X50+25	6/6	6/6	1.00/0.90	0.30	2.00	26	920	1900
3X70+35	12/6	12/6	1.10/0.90	0.40	2.20	31	1250	2650
3X95+50	15/6	15/6	1.10/1.00	0.40	2.20	34	1550	3550
3X120+70	15/12	18/12	1.20/1.10	0.40	2.20	37	1900	4450
3X150+70	12/12	18/12	1.40/1.10	0.50	2.40	42	2300	5350
3X185+95	30/15	30/15	1.60/1.10	0.50	2.60	46	2850	6700
3X240+120	30/15	34/18	1.70/1.20	0.60	2.80	52	3600	8650
3X300+150	30/15	34/18	1.80/1.40	0.60	3.00	57	4400	10700
3X400+185	53/30	53/30	2.00/1.60	0.70	3.40	65	5600	13600



The above data is approximate and subject to manufacturing tolerance

## LT XLPE Power Cables

**TABLE 5.9**

**TECHNICAL DETAILS FOR ZENIUM 1.1 KV  
4 CORE, ALUMINIUM / COPPER CONDUCTOR, XLPE INSULATED ARMoured CABLES**

Size (Cross sectional Area)	Minimum No. of Strand in Conductor		Nominal Insulation Thickness	Minimum Inner Sheath Thickness	Flat Strip Armoured (A2XFY / 2XFY)					Round Wire Armoured (A2XWY / 2XWY)				
					Nominal Armour Strip Dimension	Minimum Outer Sheath Thickness	Approx. overall Dia of Cable	Approx. Weight of Cable		Nominal Dia of Armor Wire	Minimum Outer Sheath Thickness	Approx. overall Dia of Cable	Approx. Weight of Cable	
	With Al'm Cond. A2XFY	With Cu Cond. 2XFY						With Al'm Cond. A2XWY	With Cu Cond. 2XWY					
	Aluminium	Copper			mm	mm	mm	mm	mm	Kg/Km	Kg/Km	mm	mm	mm
4	1/3	1/3	0.70	0.30	N/A	N/A	N/A	N/A	N/A	1.40	1.24	17	550	600
6	1/3	1/3	0.70	0.30	N/A	N/A	N/A	N/A	N/A	1.40	1.40	18	580	700
10	1/7	6	0.70	0.30	N/A	N/A	N/A	N/A	N/A	1.40	1.40	21	720	950
16	6	6	0.70	0.30	4 X 0.80	1.40	20	700	1100	1.60	1.40	22	900	1250
25	6	6	0.90	0.30	4 X 0.80	1.40	23	900	1500	1.60	1.40	25	1150	1700
35	6	6	0.90	0.30	4 X 0.80	1.40	25	1100	1900	1.60	1.40	27	1300	2150
50	6	6	1.00	0.30	4 X 0.80	1.56	28	1300	2400	1.60	1.56	30	1600	2750
70	12	12	1.10	0.40	4 X 0.80	1.56	32	1700	3300	2.00	1.56	34	2200	3850
95	15	15	1.10	0.40	4 X 0.80	1.56	36	2100	4350	2.00	1.72	38	2700	5000
120	15	18	1.20	0.50	4 X 0.80	1.72	40	2500	5350	2.00	1.88	42	3250	6100
150	15	18	1.40	0.50	4 X 0.80	1.88	44	3050	6550	2.50	2.04	47	4150	7700
185	30	30	1.60	0.50	4 X 0.80	2.04	49	3650	8050	2.50	2.20	52	4900	9300
240	30	34	1.70	0.60	4 X 0.80	2.20	55	4550	10400	2.50	2.36	58	6000	11800
300	30	34	1.80	0.70	4 X 0.80	2.36	60	5650	12800	31.15	2.52	65	7700	15000
400	53	53	2.00	0.70	4 X 0.80	2.68	69	6900	16200	3.15	2.84	73	9400	18600

**TABLE 5.10**

**TECHNICAL DETAILS FOR ZENIUM 1.1 KV  
4 CORE, ALUMINIUM / COPPER CONDUCTOR, XLPE INSULATED UN-ARMoured CABLES**

Size (Cross sectional Area)	Minimum No. of Strand in Conductor		Nominal Insulation Thickness	Minimum Inner Sheath Thickness	Minimum Outer Sheath Thickness	Approx. Overall Dia of Cable	Approx. Weight of Cable	
							With Al'm Cond. A2XY	With Cu Cond. 2XY
	Aluminium	Copper					mm	mm
4	1/3	1/3	0.70	0.30	1.80	15	250	370
6	1/3	1/3	0.70	0.30	1.80	16	330	470
10	1/7	6	0.70	0.30	1.80	19	420	660
16	6	6	0.70	0.30	1.80	19	450	850
25	6	6	0.90	0.30	2.00	23	650	1250
35	6	6	0.90	0.30	2.00	25	800	1650
50	6	6	1.00	0.30	2.00	27	1000	2150
70	12	12	1.10	0.40	2.20	32	1350	3000
95	15	15	1.10	0.40	2.20	35	1700	4000
120	15	1	1.20	0.50	2.40	39	2150	5000
150	15	18	1.40	0.50	2.60	43	2600	6100
185	30	30	1.60	0.50	2.80	48	3200	7600
240	30	34	1.70	0.60	3.00	54	4100	9850
300	30	34	1.80	0.70	3.20	60	5000	12200
400	53	53	2.00	0.70	3.60	68	6300	15600

The above data is approximate and subject to manufacturing tolerance