



Application:

Power transmission and distribution systems (underground & overhead) for industrial, commercial, institutional, and residential purposes. These cables are used in indoor or outdoor applications in a wide variety of industries, including thermal and nuclear power stations, renewable energy, steel, cement, defence, railways, metros, and various manufacturing industries.

Types & Sizes:

Single-core ranging from 4 sq.mm up to 1000 sq.mm and Multi-core ranging from 4 sq.mm to 500 sq.mm with voltage grade up to 3.3 kV

Conductor:

Aluminium – Solid, Stranded (Sector/Circular) or Copper – Solid, Stranded (Sector/Circular) or Flexible

Insulation:

PVC, PE, XLPE, HEPR, LSZH, PP, EPR

Armour:

Galvanized Steel or Aluminium Round Wire/ Flat Strip/ Tape or GI/ Tinned Copper Braid

Inner & Outer Sheath:

PVC, HDPE, LSZH, Rubber

Specifications:

Generally conforming to IS 1554 (Pt 1 & 2), IS 7098 (Pt 1 & 2), HD 603S1, IEC 60502-1, BS 5467, BS 6346, AS/NZS 5000.1 and designed to meet the customer's requirements

Note

- ⦿ The technical data provided is for reference only and may be revised without notice. Other details can be provided on request.
- ⦿ The current ratings are given for Air Temperature @ 40°C Ground / Duct Temperature @ 30°C, Thermal Resistivity of soil 1.5 km/W, depth of laying 900 mm and may vary if the site conditions are different.

Technical Data for XLPE Power Cables

Aluminium Conductor, XLPE Insulated, PVC Sheathed, Unarmoured (A2XY)/ Armoured (A2XWαY, A2XFαY) Cable-650/1100 Volts as per IS: 7098 (Pt-I)													
Cross sectional area	Unarmoured		Armoured		Max. D.C conductor resistance at 20°C	Short circuit rating for 1 Sec duration	A.C current rating			Unarmoured		Armoured	
	Thickness of XLPE insulation	Overall dia.	Thickness of XLPE insulation	Overall dia.			In air	Direct in ground	In duct	Reactance of cable at 50 Hz	Capacitance of cable	Reactance of cable at 50 Hz	Capacitance of cable
Nom.	Nom.	Approx.	Nom.	Approx.			For information only			Approx.		Approx.	
sq.mm	mm	mm	mm	mm	Ω/km	kA	Amps.			Ω/km	µf/km	Ω/km	µf/km
SINGLE CORE													
4	0.7	7.0	1.0	10	7.41	0.376	38	43	36	0.136	0.29	0.152	0.22
6	0.7	8.0	1.0	11	4.61	0.564	50	55	47	0.128	0.34	0.144	0.26
10	0.7	9.0	1.0	12	3.08	0.940	64	69	58	0.118	0.42	0.133	0.31
16	0.7	10.0	1.0	12.5	1.91	1.50	84	89	75	0.108	0.50	0.122	0.40
25	0.9	11.5	1.2	14	1.20	2.40	112	115	96	0.102	0.52	0.116	0.40
35	0.9	12.5	1.2	15	0.868	3.30	137	137	115	0.097	0.60	0.110	0.47
50	1.0	14.5	1.3	17	0.641	4.70	165	161	135	0.092	0.63	0.103	0.50
70	1.1	16.0	1.4	18.5	0.443	6.60	209	198	165	0.088	0.68	0.099	0.55
95	1.1	18.0	1.4	21	0.320	9.00	264	243	199	0.085	0.79	0.097	0.64
120	1.2	19.5	1.5	22.5	0.253	11.30	308	276	226	0.082	0.79	0.093	0.67
150	1.4	21.5	1.7	24.5	0.206	14.20	350	308	252	0.082	0.79	0.091	0.67
185	1.6	24.0	1.9	27	0.164	17.50	406	349	285	0.082	0.79	0.090	0.67
240	1.7	26.0	2.0	29	0.125	22.60	480	404	329	0.079	0.84	0.086	0.72
300	1.8	29.0	2.1	32	0.100	28.30	551	454	369	0.078	0.86	0.085	0.75
400	2.0	32.5	2.4	36.5	0.0778	37.70	647	518	421	0.077	0.88	0.085	0.75
500	2.2	36.0	2.6	39.5	0.0605	47.00	751	588	476	0.076	0.90	0.083	0.77
630	2.4	39.5	2.8	43.5	0.0469	59.22	868	663	536	0.075	0.94	0.082	0.81
800	2.6	44.5	3.1	49	0.0367	75.20	992	740	596	0.075	0.97	0.081	0.88
1000	2.8	49.5	3.3	55	0.0291	94.00	1117	812	652	0.068	1.01	0.081	0.88

**Aluminium Conductor, XLPE Insulated, PVC Sheathed, Unarmoured (A2XY)/
Armoured (A2XWY, A2XFY) Cable-650/1100 Volts as per IS: 7098 (Pt-I)**

Cross sectional area	Thickness of XLPE insulation	Unarmoured	Armoured	Max. D.C conductor resistance at 20°C	Short circuit rating for 1 Sec duration	A.C current rating			Reactance of cable at 50 Hz	Capacitance of cable
		Overall dia.	Overall dia.			In air	Direct in ground	In duct		
Nom.	Nom.	Approx.	Approx.			For information only			Approx.	Approx.
sq.mm	mm	mm	mm	Ω/km	kA	Amps.			Ω/km	µf/km
THREE CORE										
4	0.7	13.5	15.5	7.41	0.376	32	35	30	0.098	0.11
6	0.7	14.5	17.0	4.61	0.564	42	46	38	0.090	0.13
10	0.7	17.0	19.0	3.08	0.940	54	57	48	0.084	0.16
16	0.7	17.5	18.0	1.91	1.50	69	74	61	0.080	0.18
25	0.9	21.0	21.5	1.20	2.40	93	95	79	0.080	0.20
35	0.9	23.0	24.0	0.868	3.30	114	114	94	0.080	0.23
50	1.0	26.5	27.0	0.641	4.70	138	134	112	0.078	0.24
70	1.1	30.0	30.5	0.443	6.60	175	164	137	0.077	0.26
95	1.1	33.5	34.5	0.320	9.00	216	197	164	0.074	0.29
120	1.2	37.0	37.5	0.253	11.30	249	223	187	0.072	0.29
150	1.4	41.0	41.5	0.206	14.20	284	249	209	0.072	0.29
185	1.6	46.0	46.5	0.164	17.50	329	282	238	0.072	0.29
240	1.7	50.5	51.5	0.125	22.60	392	327	276	0.072	0.31
300	1.8	56.0	56.5	0.100	28.30	452	369	213	0.071	0.33
400	2.0	63.5	64.0	0.0778	37.70	526	420	356	0.070	0.33
500	2.2	65.0	65.5	0.0605	47.00	612	478	412	0.070	0.34
THREE AND HALF CORE										
25/16	0.9/0.7	21.5	22.5	1.20	2.40	93	95	79	0.080	0.20
35/16	0.9/0.7	23.5	24.0	0.868	3.30	114	114	94	0.080	0.23
50/25	1.0/0.9	27.0	27.5	0.641	4.70	138	134	112	0.078	0.24
70/35	1.1/0.9	31.0	31.5	0.443	6.60	175	164	137	0.077	0.26
95/50	1.1/1.0	35.0	35.5	0.320	9.00	216	197	164	0.074	0.29
120/70	1.2/1.1	38.5	39.5	0.253	11.30	249	223	187	0.072	0.29
150/70	1.4/1.1	42.0	42.5	0.206	14.20	284	249	209	0.072	0.29
185/95	1.6/1.1	47.0	47.5	0.164	17.50	329	282	238	0.072	0.29
240/120	1.7/1.2	52.0	52.5	0.125	22.60	392	327	276	0.072	0.31
300/150	1.8/1.4	58.0	58.5	0.100	28.30	452	369	312	0.071	0.33
400/185	2.0/1.6	65.5	66.0	0.0778	37.70	526	420	356	0.070	0.33
500/240	2.2/1.7	72.0	72.5	0.0605	47.00	612	478	412	0.070	0.34
FOUR CORE										
4	0.7	15.0	16.5	7.41	0.376	32	35	30	0.098	0.11
6	0.7	16.5	18.0	4.61	0.564	42	46	38	0.090	0.13
10	0.7	18.5	20.0	3.08	0.940	54	57	48	0.084	0.16
16	0.7	19.0	20.5	1.91	1.50	69	74	61	0.080	0.18
25	0.9	23.0	23.5	1.20	2.40	93	95	79	0.080	0.20
35	0.9	25.5	26.0	0.868	3.30	114	114	94	0.080	0.23
50	1.0	29.0	30.0	0.641	4.70	138	134	112	0.078	0.24
70	1.1	33.0	33.5	0.443	6.60	175	164	137	0.077	0.26
95	1.1	37.0	37.5	0.320	9.00	216	197	164	0.074	0.29
120	1.2	41.0	41.5	0.253	11.30	249	223	187	0.072	0.29
150	1.4	45.5	46.0	0.206	14.20	284	249	209	0.072	0.29
185	1.6	51.0	51.5	0.164	17.50	329	282	238	0.072	0.29
240	1.7	56.5	57.0	0.125	22.60	392	327	276	0.072	0.31
300	1.8	62.5	62.5	0.100	28.30	452	369	312	0.071	0.33
400	2.0	70.5	70.5	0.0778	37.70	526	420	356	0.070	0.33



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