

POWER CABLES

Ideal for distributing electricity to residential, commercial and industrial units the Low-Tension Power Cables are made with high quality copper and aluminium to offer superior conductivity. Available in Single core and multi core configurations, they are safe, non-hazardous, lead and cadmium-free and are manufactured at the largest integrated cables unit in Nepal. These cables consist of three major components conductors, insulation, and protective outer sheath. The makeup of individual cables varies according to application.

Application

LV power cables is used widely in many industries ranging from industries involved in water, renewable energy, distribution and power networks, nuclear and thermal power stations, airports, marine, defense, telecommunications, windmills, building, mining, offshore, applications, ship wiring, railways, automation, audio visual and manufacturing industries, these cables can be suitable for a huge amount of applications.



Construction

Conductor	Stranded / Solid / Circular / shaped as per IS:8130, IEC 60228, BS 6360
Material	Aluminium / Copper
Insulation	PVC / XLPE / HR PVC / Zero Halogen
Inner sheath	PVC /HR PVC /FR/FRLS PVC / Zero Halogen as per IS 5831, IEC 60502, BS 7655.
Armour	G.S STEEL ROUND WIRE /G.S. STEEL FORMED WIRE (STRIP) / G.S. STEEL TAPE/ALUMINIUM ROUND WIRE / ALUMINIUM FORMED WIRE (STRIP)/ ALUMINIUM TAPE as per IS 3975, IEC 60502 P 1.
Outer sheath	PVC /HR PVC /FR/FRLS PVC / Zero Halogen as per IS 5831, IEC 60502, BS 7655.

Product	Type	Size	Voltage Rating
PVC / XLPE insulated cables conforming to IS:1554 I / IS:7098 I, BS:6346, IEC:60502, BS:5467, BS:6724 and Customer specific requirements	Aluminum Armoured & Unarmoured	Single Core : 1.5 to 1000 sq. mm	Upto 1.1 kV
		Multi core : 1.5 to 630 sq. mm	
	Copper Armoured & Unarmoured	Single Core : 1.5 to 1000 sq. mm	
		Multi core : 1.5 to 630 sq. mm	

Product Features

XLPE INSULATED CABLES

- Higher current rating and emergency overload rating
- Superior short circuit rating
- Low dielectric loss
- Much better insulation resistance
- Resistant to chemical & corrosive gases etc.
- Better resistance to surge currents
- Much longer life of the cables

PVC INSULATED CABLES

- High dielectric strength & resistance to D.C. Voltage effects
- High mechanical strength & resistance to abrasion, vibration & ageing
- Resistant to most acids, alkalis, to temporary contact with solvents, Oils and liquid fluids
- Flame retardant, does not support combustion and self-extinguishing

INSULATION MATERIAL

- FR/FRLS/FRLSH/HFFR
- PVC/XLPE

APPLICABLE STANDARD

- IS:1554-1, IS:7098-1
- IS:8130, IS:5831

TECHNICAL INFORMATION	CONSTRUCTION OPTION	CROSS SECTIONAL VIEW
<p>Type: PVC / XLPE insulated cables conforming to IS:1554-I / IS:7098-I, BS:6346, IEC:60502, BS:5467, BS:7846 and Customer specific requirements</p>	<p>Conductor – Stranded / Solid / Circular shaped as per class-2 of IS:8130 Material – -Aluminum / Copper</p>	
<p>Sizes: Single Core 1.5 to 1000 sq. mm Multi core 1.5 to 630 sq. mm</p>	<p>Insulation – PVC /XLPE/HR PVC / Zero Halogen (Phase, Red, Yellow, Blue & Neutral – Black) Colour</p>	
<p>Voltage Rating: 1.1 Kv</p>	<p>Inner sheath – PVC /HR PVC /FR/FRLS PVC, as per IS :7098PT-1</p>	

CURRENT RATINGS FOR PVC INSULTAED & PVC SHEATHED (Unarmoured and Armoured) POWER CABLES VOLT GRADE 650/1100 V

SIZE	CORE	OUTER DIAMETER		CURRENT RATINGS			
		UNARMOURED	ARMOURED	ALUMINIUM		COPPER	
				IN GROUND	IN AIR	IN GROUND	IN AIR
SQ. MM.		MM	MM	AMPS	AMPS	AMPS	AMPS
1.5	1	6.8	9.4	21	18	25	22
	2	11.0	12.2	18	16	23	20
	3	11.2	12.3	16	13	21	17
	4	11.4	13.1	16	13	21	17
2.5	1	7.5	10.0	28	25	35	30
	2	13.8	15.5	25	21	32	27
	3	14.4	14.6	21	18	27	24
	4	14.5	14.6	21	18	27	24
4	1	8.2	10.8	31	27	39	35
	2	15.5	15.8	32	27	41	35
	3	16.0	16.2	28	23	36	30
	4	14.5	16.2	28	23	36	30
6	1	8.8	11.4	39	35	49	44
	2	16.5	17.0	40	35	50	45
	3	17.5	17.7	35	30	45	39
	4	15.7	16.8	35	30	45	39
10	1	9.8	12.4	51	47	65	60
	2	18.4	19.2	55	47	70	60
	3	18.5	18.9	46	40	60	52
	4	17.7	18.5	46	40	60	52
16	1	10.7	13.3	66	64	85	82
	2	20.5	21.2	70	59	90	78
	3	21.5	21.5	60	51	77	66
	4	20.0	20.8	60	51	77	66
25	1	12.8	15.3	86	84	110	110
	2	21.8	22.2	86	75	115	105
	3	22.8	23.0	76	70	99	90
	3.5	23.1	23.5	76	70	99	90
	4	24.1	24.5	76	70	99	90
35	1	13.6	16.2	100	105	130	130
	2	23.5	24.0	110	99	140	125
	3	25.0	25.4	92	86	120	110
	3.5	25.0	25.4	92	86	120	110
	4	26.6	27.1	92	86	120	110
50	1	15.5	18.0	120	130	155	165
	2	25.0	25.8	135	125	165	155
	3	27.5	28.6	110	105	145	135
	3.5	29.0	29.7	110	105	145	135
	4	30.7	31.5	110	105	145	135

SIZE	CORE	OUTER DIAMETER		CURRENT RATINGS			
		UNARMoured	ARMoured	ALUMINIUM		COPPER	
				IN GROUND	IN AIR	IN GROUND	IN AIR
SQ. MM.		MM	MM	AMPS	AMPS	AMPS	AMPS
70	1	17.7	20.6	140	155	190	205
	2	30.2	30.5	160	150	205	195
	3	32.0	32.5	135	130	175	165
	3.5	32.8	33.6	135	130	175	165
	4	34.7	35.2	135	130	175	165
95	1	19.9	22.4	175	190	220	245
	2	32.8	33.2	190	185	240	230
	3	35.5	36.5	165	155	210	200
	3.5	37.4	37.7	165	155	210	200
	4	39.5	40.3	165	155	210	200
120	1	21.5	24.0	195	220	250	280
	2	36.5	37.5	210	210	275	265
	3	39.0	39.5	185	108	240	230
	3.5	40.7	41.4	185	108	240	230
	4	42.8	43.7	185	108	240	230
150	1	23.4	25.9	220	250	280	320
	2	38.2	38.8	240	240	310	305
	3	43.0	43.8	210	205	270	265
	3.5	44.6	45.2	210	205	270	265
	4	47.8	48.5	210	205	270	265
185	1	25.7	28.6	240	290	305	370
	2	40.5	40.8	275	275	350	350
	3	46.5	48.3	235	240	305	300
	3.5	49.8	50.3	235	240	300	305
	4	52.4	53.5	235	240	300	305
240	1	28.8	32.1	270	335	345	425
	2	45.0	46.0	320	325	405	410
	3	52.0	54.2	275	280	345	355
	3.5	55.8	56.2	275	280	345	355
	4	59.2	60.2	275	280	345	355
300	1	31.8	35.0	295	380	375	475
	2	49.0	49.5	355	365	450	465
	3	57.5	60.1	305	315	385	400
	3.5	62.1	62.4	305	315	385	400
	4	65.9	66.6	305	315	385	400
400	1	35.4	39.1	325	435	400	550
	2	56.0	57.5	385	420	490	530
	3	65.0	38.1	335	375	425	455
	3.5	70.3	71.5	335	375	425	455
	4	74.6	75.6	335	375	425	455
500	1	40.2	44.3	345	480	425	590
630	1	44.7	49.9	390	550	470	660
800	1	49.0	54.8	440	600	530	725
1000	1	53.8	59.9	490	720	590	870

Confirming Standard: BS 6346, IS 1554

Packing: Wooden Drum

Insulation: PVC

Conductor: Aluminium / Copper (Armoured / Unarmoured)

* Outer Dia is for Conduit & Trunk guidance only.

XLPE Insulated PVC Sheathed Power Cables

SIZE	CORE	OUTER DIAMETER		CURRENT RATINGS			
		UNARMOURED	ARMOURED	ALUMINIUM		COPPER	
SQ. MM.	NUMBER			MM	MM	IN GROUND	IN AIR
				AMPS	AMPS	AMPS	AMPS
1.5	1	6.4	9.4	22	19	26	23
	2	9.4	12.2	20	18	25	22
	3	9.8	12.3	18	15	21	17
	4	10.5	13.1	18	15	21	17
2.5	1	6.8	10.0	28	25	35	30
	2	10.2	15.5	26	22	32	27
	3	10.7	14.6	23	20	27	24
	4	11.5	14.6	23	20	27	24
4	1	7.2	10.8	36	31	47	42
	2	11.1	15.8	40	34	51	44
	3	11.6	16.2	34	31	43	36
	4	12.5	16.2	34	31	43	36
6	1	8.2	11.4	44	31	59	53
	2	13.4	17.0	50	39	63	56
	3	14.0	17.7	43	44	54	47
	4	15.3	16.8	43	50	54	47
10	1	9.1	12.4	59	53	78	72
	2	15.1	19.2	69	59	88	75
	3	15.9	18.9	57	67	72	62
	4	17.4	18.5	57	67	72	62
16	1	10.1	13.3	76	73	102	98
	2	16.2	21.2	88	74	113	98
	3	18.2	21.5	73	70	92	79
	4	19.0	20.8	73	70	92	79
25	1	11.8	15.3	96	98	132	132
	2	17.0	22.2	112	98	144	131
	3	20.0	23.0	94	96	119	108
	3.5	21.0	23.5	94	96	119	108
	4	22.0	24.5	94	96	119	108
35	1	12.9	16.2	114	121	156	156
	2	19.0	24.0	138	124	175	150
	3	21.5	25.4	113	117	144	132
	3.5	22.8	25.4	113	117	144	132
	4	23.5	27.1	113	117	144	132
50	1	14.6	18.0	135	150	186	198
	2	21.0	25.8	169	156	206	194
	3	24.5	28.6	133	142	174	162
	3.5	25.0	29.7	133	142	174	162
	4	27.9	31.5	133	142	174	162

SIZE	CORE	OUTER DIAMETER		CURRENT RATINGS			
		UNARMOURED	ARMOURED	ALUMINIUM		COPPER	
				IN GROUND	IN AIR	IN GROUND	IN AIR
SQ. MM.	NUMBER	MM	MM	AMPS	AMPS	AMPS	AMPS
70	1	16.6	18.9	166	187	228	246
	2	23.0	25.5	200	188	256	244
	3	29.0	30.0	164	179	210	198
	3.5	28.2	30.0	164	179	210	198
	4	30.5	33.8	64	79	210	198
95	1	18.3	21.3	198	230	264	294
	2	26.5	28.0	238	231	300	288
	3	32.5	33.5	196	221	252	240
	3.5	32.0	33.8	196	221	252	240
	4	33.5	37.6	196	221	252	240
120	1	20.2	23.2	225	268	300	336
	2	28.5	30.5	262	262	344	331
	3	34.5	35.5	223	257	288	276
	3.5	35.4	37.0	223	257	288	276
	4	37.5	40.5	223	257	288	276
150	1	22.5	25.1	253	309	336	384
	2	32.0	34.0	300	300	388	381
	3	38.5	40.5	249	292	324	318
	3.5	41.0	42.0	249	292	324	318
	4	42.2	43.5	249	292	324	318
185	1	24.7	27.3	286	360	366	444
	2	35.5	37.0	344	344	438	438
	3	43.5	44.5	282	337	360	366
	3.5	46.5	47.5	282	337	360	366
	4	48.0	49.2	282	337	360	366
240	1	27.4	30.3	332	433	414	510
	2	39.5	41.0	400	406	506	512
	3	48.5	49.0	326	399	414	426
	3.5	52.5	53.5	326	399	414	426
	4	54.0	55.8	326	399	414	426
300	1	30.1	33.8	376	501	450	570
	2	43.5	45.5	444	456	562	581
	3	51.5	33.0	367	455	462	480
	3.5	56.0	57.0	367	455	462	480
	4	58.0	59.5	367	455	462	480
400	1	34.1	37.6	431	596	480	660
	2	49.0	51.0	481	525	612	662
	3	59.5	59.8	420	530	510	546
	3.5	64.0	65.0	420	530	510	546
	4	66.5	68.0	420	530	510	546
500	1	38.1	42.4				
	1	42.2	47.4				
	1	46.7	52.7				
	1	52.1	58.0				

Confirming Standard: BS 6346, IS 1554

Packing: Wooden Drum

Insulation: PVC

Conductor: Aluminium / Copper (Armoured / Unarmoured)

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