

Power & Control Cables (600/1000V)

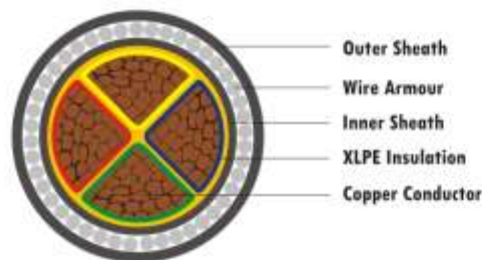
As per BS : 5467 / IEC : 60502

Application

Multicore XLPE Control Cables are specially designed for Power supply stations, in indoors and in cable ducts, outdoors, underground as well as for installations on cable trays for industries, switch-boards and power stations. XLPE Insulated cables offer higher current ratings, superior short circuit ratings and improved moisture resistance over equivalent PVC insulated cables.

Technical Details

- | | |
|------------------------|--|
| Conductor | <ul style="list-style-type: none"> ● Solid/stranded Plain/Tinned Cu or Al conductor as per BS :6360 & IEC 60228/customer requirement. |
| Insulation | <ul style="list-style-type: none"> ● Cross linked Polyethylene (XLPE). |
| Inner Sheathing | <ul style="list-style-type: none"> ● PVC (70°C/90°C)/FRLS/LSOH compound as per customer requirement. |
| Armouring | <ul style="list-style-type: none"> ● Galvanised round steel wire armour. |
| Jacketing | <ul style="list-style-type: none"> ● PVC (70°C/90°C) / FRLS / LSOH compound as per customer requirement. |
| Drum Length | <ul style="list-style-type: none"> ● 250/500/1000 Mtrs. |



Physical Parameters

0.6/1 kV Single core CU/XLPE/PVC/AL-WIRE/PVC

Nominal Cross Sectional Area (Sq. mm)	Nominal Thickness of Insulation mm	Thickness of bedding mm	Nominal AL wire armour dia. mm	Thickness of outer sheath mm	Approx. overall diameter mm	Approx. cable weight Kg/Km	Max DC Resistance at 200C Ohm/Km
50	1.0	0.8	0.9	1.5	17.5	668	0.387
70	1.1	0.8	1.25	1.5	19.9	924	0.268
95	1.1	0.8	1.25	1.6	21.8	1201	0.193
120	1.2	0.8	1.25	1.6	23.5	1460	0.153
150	1.4	1.0	1.6	1.7	26.8	1840	0.124
185	1.6	1.0	1.6	1.8	29.1	2240	0.0991
240	1.7	1.0	1.6	1.8	31.6	2820	0.0754
300	1.8	1.0	1.6	1.9	34.2	3450	0.0601
400	2.0	1.2	2.0	2.0	39.3	4444	0.0470
500	2.2	1.2	2.0	2.1	44.2	5830	0.0366
630	2.4	1.2	2.0	2.2	46.7	6999	0.0283
800	2.6	1.4	2.5	2.4	55.4	9540	0.0221
1000	2.8	1.4	2.5	2.5	57.5	11061	0.0176

Physical Parameters

0.6/1 kV Two core CU/XLPE/PVC/SWA/PVC

Nominal Cross Sectional Area (Sq. mm)	Nominal Thickness of Insulation mm	Thickness of bedding mm	Nominal Steel wire armour dia. mm	Thickness of outer sheath mm	Approx. overall diameter mm	Approx. cable weight Kg/Km	Max DC Resistance at 200C Ohm/Km
1.5	0.6	0.8	0.9	1.3	12.1	280	12.1
2.5	0.7	0.8	0.9	1.4	13.6	340	7.41
4	0.7	0.8	0.9	1.4	14.7	416	4.61
6	0.7	0.8	0.9	1.4	15.8	494	3.08
10	0.7	0.8	0.9	1.5	17.9	653	1.83
16	0.7	0.8	1.25	1.5	19.6	807	1.15
25	0.9	0.8	1.25	1.6	22.8	1101	0.727
35	0.9	1.0	1.6	1.7	26.2	1518	0.524
50	1.0	1.0	1.6	1.8	29.4	1886	0.387
70	1.1	1.0	1.6	1.9	32.9	2417	0.268
95	1.1	1.2	2.0	2.0	37.5	3318	0.193
120	1.2	1.2	2.0	2.1	40.4	3912	0.153
150	1.4	1.2	2.0	2.2	44.3	4645	0.124
185	1.6	1.4	2.5	2.4	49.9	5994	0.0991
240	1.7	1.4	2.5	2.5	54.7	7357	0.0754
300	1.8	1.6	2.5	2.6	60.0	8876	0.0601
400	2.0	1.6	2.5	2.8	66.6	14880	0.0470

Physical Parameters

0.6/1 kV Three core CU/XLPE/PVC/SWA/PVC

Nominal Cross Sectional Area (Sq. mm)	Nominal Thickness of Insulation mm	Thickness of bedding mm	Nominal Steel wire armour dia. mm	Thickness of outer sheath mm	Approx. overall diameter mm	Approx. cable weight Kg/Km	Max DC Resistance at 200C Ohm/Km
1.5	0.6	0.8	0.9	1.3	12.6	305	12.1
2.5	0.7	0.8	0.9	1.4	14.1	375	7.41
4	0.7	0.8	0.9	1.4	15.1	438	4.61
6	0.7	0.8	0.9	1.4	16.3	524	3.08
10	0.7	0.8	1.25	1.5	19.2	797	1.83
16	0.7	0.8	1.25	1.6	20.4	994	1.15
25	0.9	1.0	1.6	1.7	24.9	1528	0.727
35	0.9	1.0	1.6	1.8	27.3	1902	0.524
50	1.0	1.0	1.6	1.8	30.5	2374	0.387
70	1.1	1.0	1.6	1.9	34.2	3115	0.268
95	1.1	1.2	2.0	2.1	39.1	4278	0.193
120	1.2	1.2	2.0	2.2	42.6	5135	0.153
150	1.4	1.4	2.5	2.3	48.2	6564	0.124
185	1.6	1.4	2.5	2.4	52.4	7854	0.0991
240	1.7	1.4	2.5	2.6	57.8	9816	0.0754
300	1.8	1.6	2.5	2.7	63.2	11874	0.0601
400	2.0	1.6	2.5	2.9	70.8	14707	0.0470

Physical Parameters

0.6/1 kV Four core CU/XLPE/PVC/SWA/PVC

Nominal Cross Sectional Area (Sq. mm)	Nominal Thickness of Insulation mm	Thickness of bedding mm	Nominal Steel wire armour dia. mm	Thickness of outer sheath mm	Approx. overall diameter mm	Approx. cable weight Kg/Km	Max DC Resistance at 200C Ohm/Km
1.5	0.6	0.8	0.9	1.3	13.8	348	12.1
2.5	0.7	0.8	0.9	1.4	15.0	419	7.41
4	0.7	0.8	0.9	1.4	16.3	514	4.61
6	0.7	0.8	1.25	1.5	18.6	723	3.08
10	0.7	0.8	1.25	1.5	20.8	954	1.83
16	0.7	0.8	1.25	1.6	21.4	1188	1.15
25	0.9	1.0	1.6	1.7	26.2	1836	0.727
35	0.9	1.0	1.6	1.8	28.8	2303	0.524
50	1.0	1.0	1.6	1.9	32.4	2930	0.387
70	1.1	1.2	2.0	2.1	37.8	4164	0.268
95	1.1	1.2	2.0	2.2	41.6	5324	0.193
120	1.2	1.4	2.5	2.3	46.8	6872	0.153
150	1.4	1.4	2.5	2.4	51.3	8185	0.124
185	1.6	1.4	2.5	2.6	56.1	9861	0.0991
240	1.7	1.6	2.5	2.7	62.1	12440	0.0754
300	1.8	1.6	2.5	2.9	67.6	15058	0.0601
400	2.0	1.8	3.15	3.2	78.1	20200	0.0470

Physical Parameters

0.6/1 kV Four core with reduced neutral CU/XLPE/PVC/SWA/PVC

Nominal Cross Sectional Area (N) (Sq. mm)	Nominal Cross Sectional Area (N) (Sq. mm)	Nominal Thickness of Insulation (P) mm	Nominal Thickness of Insulation (N) mm	Thickness of bedding mm	Nominal armour wire dia. mm	Thickness of outer sheath mm	Approx. overall diameter mm	Approx. cable weight Kg/Km	Max DC Resistance at 200C Ohm/Km
25	16	0.9	0.7	1.0	1.6	1.7	27.6	1782	0.727
35	16	0.9	0.7	1.0	1.6	1.8	29.6	2135	0.524
50	25	1.0	0.9	1.0	1.6	1.9	32.9	2713	0.387
70	35	1.1	0.9	1.2	2.0	2.0	37.5	3806	0.268
95	50	1.1	1.0	1.2	2.0	2.1	41.1	4814	0.193
120	70	1.2	1.1	1.2	2.0	2.2	44.7	5892	0.153
150	70	1.4	1.1	1.4	2.5	2.4	49.3	7294	0.124
185	95	1.6	1.1	1.4	2.5	2.5	53.3	8823	0.0991
240	120	1.7	1.2	1.6	2.5	2.6	58.5	11000	0.0754
300	150	1.8	1.4	1.6	2.5	2.8	63.5	13301	0.0601
400	185	2.0	1.6	1.6	2.5	3.0	73.8	17100	0.0470

Physical Parameters

0.6/1 kV Control Cables CU/XLPE/PVC/SWA/PVC

Nominal Cross Sectional Area (Sq. mm)	No. of Cores	Nominal Thickness of Insulation mm	Thickness of bedding mm	Nominal AL wire armour dia. mm	Thickness of outer sheath mm	Approx. overall diameter mm	Approx. cable weight Kg/Km	Max DC Resistance at 200C Ohm/Km
1.5	7	0.6	0.8	0.9	1.4	15.9	461	12.1
1.5	12	0.6	0.8	1.25	1.5	20.3	757	12.1
1.5	19	0.6	0.8	1.25	1.6	23.2	982	12.1
1.5	27	0.6	1.0	1.6	1.7	28.0	1442	12.1
1.5	37	0.6	1.0	1.6	1.7	30.6	1733	12.1
1.5	48	0.6	1.0	1.6	1.8	34.4	2105	12.1
2.5	7	0.7	0.8	0.9	1.4	17.1	555	7.41
2.5	12	0.7	0.8	1.25	1.6	22.3	938	7.41
2.5	19	0.7	1.0	1.6	1.7	26.6	1411	7.41
2.5	27	0.7	1.0	1.6	1.8	30.8	1805	7.41
2.5	37	0.7	1.0	1.6	1.8	33.8	2210	7.41
2.5	48	0.7	1.2	2.0	2.0	39.4	2995	7.41
4	7	0.7	0.8	1.25	1.5	19.7	868	4.61
4	12	0.7	1.0	1.6	1.6	25.6	1397	4.61
4	19	0.7	1.0	1.6	1.7	29.3	1728	4.61
4	27	0.7	1.0	1.6	1.9	34.3	2266	4.61
4	37	0.7	1.2	2.0	2.0	39.2	3295	4.61
4	48	0.7	1.2	2.0	2.1	44.0	3792	4.61

PVC Insulated Steel-Wire Armoured Power Cables (0.6/1kV)

As per : IEC 60502

Application

This cable is preferably used for supplying main power/ as a control cable. It is also used for industrial installation such as in cable duct, cable trench, power stations and switchgear. This cable is suitable for ground emplacement if a higher electrical or mechanical protection is required.

Cable Construction

- Conductor: plain annealed, stranded circular non-compacted or shaped copper.
- Insulation: PVC
- Bedding: PVC or PVC tapes
- Armour: Galvanized round steel wires
- Sheath: PVC
- Colour: 2C — Red and Black
- 3C — Red, Yellow and Blue
- 4C — Red, Yellow, Blue and Black
- 5 Cores and above — White insulation with black numbers printed on cores

Technical Data

- Applicable standard: IEC 60502
- Rated voltage: 600/1000V
- Testing voltage: 3.5kV/5min
- Max. conductor operating temperature: 70°C

Production Range

- 1C from 1.5 sq to 630 sq. mm
- 2C from 1.5 sq to 35 sq. mm

Note

- Alternative materials may be provided if specified (eg. LSOH compound/Mica tape)

Physical Parameters

0.6/1 kV Power Cables

Rated Cross Section (mm ²)	Copper Conductor	Insulation Thickness (mm)	Sheath Thickness (mm)	Average Overall Diameter (mm)	Approx.net Weight (kg/km)
3x1.5	7x0.52	0.6	1.3	12.6	312
3x2.5	7x0.66	0.7	1.4	14.1	393
3x4	7x0.83	0.7	1.4	15.2	478
3x6	7x1.02	0.7	1.4	16.5	579
3x10	7x1.34	0.7	1.5	19.1	861
3x16	7x1.70	0.7	1.6	21.7	1148
3x25	7x2.20	0.9	1.7	25.7	1763
3x35	7x2.55	0.9	1.8	28.3	2177
3x50	10x2.66	1.4	2.0	37.0	3020
4x2.5	7x0.66	0.7	1.4	15.0	447
4x4	7x0.83	0.7	1.4	16.2	549
4x6	7x1.02	0.7	1.5	18.5	777
4x10	7x1.34	0.7	1.5	20.5	1007
4x16	7x1.70	0.7	1.6	23.3	1366
4x25	7x2.20	0.9	1.7	27.6	2105
4x35	7x2.55	0.9	1.8	30.5	2612
4x50	10x2.66	1.4	1.8	41.2	4050

