

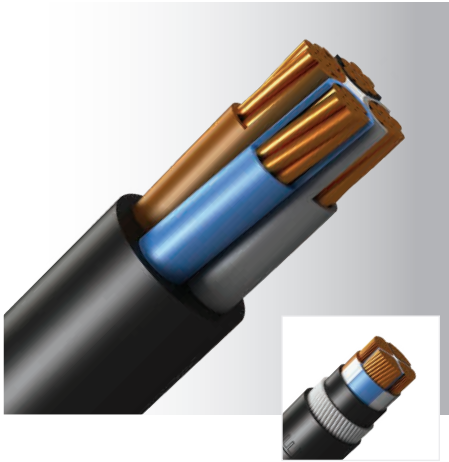
XLPE Insulated Cables

0.6/1kV 2-Core ~ 5-Core

XLPE Insulated, Unarmoured & Armoured, PVC Sheathed Cable

Description: CU/XLPE/PVC or CU/XLPE/PVC/SWA/PVC-AT

Model Code: XP or XPSP-AT



Application :	This cable is primarily used for main power supply. It can be installed in cable ducts, cable trunking, on cable trays, and cable ladders.
Voltage rating :	0.6/1kV
Construction :	Plain annealed copper (IEC 60228 Class 2), XLPE insulated, unarmoured or galvanized steel wires armoured, PVC or anti-termite PVC (for armoured cable only) compound sheathed cable
Insulation colour :	2-Core: Brown, Blue; 3-Core: Brown, Black, Grey; Brown, Blue, Green/Yellow; 4-Core: Brown, Black, Grey, Blue; Brown, Black, Grey, Green/Yellow; 5-Core: Brown, Black, Grey, Blue, Green/Yellow; (Other colour upon request)
Sheath colour :	Black
Specification :	IEC 60502-1, IEC 60332-1-2
Operating temperature :	90°C

2-CORE [2C]

(Brown, Blue) (1-phase and neutral)

Conductor	Insulation	Unarmoured Cable			Armoured Cable		
		Part No.	Approx. Overall Diam.	Approx. Weight	Part No.	Approx. Overall Diam.	Approx. Weight
Nominal Area	Thickness		(mm)	(kg/km)		(mm)	(kg/km)
(mm ²)	(mm)						
1.5	0.7	07026001	10.1	130	07026025	14.5	325
2.5	0.7	08026001	11.0	160	08026025	15.5	400
4	0.7	09026001	12.0	200	09026025	16.5	475
6	0.7	10026001	13.1	260	10026025	17.5	570
10	0.7	11026001	16.0	380	11026025	20.8	800
16	0.7	12026001	18.0	480	12026025	22.9	1050
25 (cs)	0.9	13026001	21.2	709	13026025	26.7	1471
35 (cs)	0.9	14026001	23.4	925	14026025	29.0	1762
50 (cs)	1.0	15026001	25.8	1214	15026025	32.4	2150
70 (cs)	1.1	16026001	30.4	1675	16026025	36.3	2749
95 (cs)	1.1	17026001	34.0	2244	17026025	41.2	3776
120 (cs)	1.2	18026001	37.0	2799	18026025	44.2	4435
150 (cs)	1.4	19026001	41.0	3426	19026025	48.2	5222
185 (cs)	1.6	20026001	45.8	4264	20026025	54.4	6919
240 (cs)	1.7	21026001	51.8	5540	21026025	60.4	8387
300 (cs)	1.8	22026001	57.4	6873	22026025	66.3	10073
400 (cs)	2.0	23026001	65.0	8769	23026025	74.0	12327

Current rating and voltage drop

For Unarmoured Cable, please refer to Table 14 & 15 (Page 60)
For Armoured Cable, please refer to Table 16 & 17 (Page 61)

(cs) : Circular Compact Stranded Conductor

0.6/1kV 2-Core ~ 5-Core

XLPE Insulated, Unarmoured & Armoured, PVC Sheathed Cable

Description: CU/XLPE/PVC or CU/XLPE/PVC/SWA/PVC-AT

Model Code: XP or XPSP-AT

3-CORE [3C]

(Brown, Black, Grey) (3-phase, three wire)

Conductor Nominal Area (mm ²)	Insulation Thickness (mm)	Unarmoured Cable			Armoured Cable		
		Part No.	Approx. Overall Diam. (mm)	Approx. Weight (kg/km)	Part No.	Approx. Overall Diam. (mm)	Approx. Weight (kg/km)
1.5	0.7	07036002	10.5	145	07036026	15.0	390
2.5	0.7	08036002	11.4	190	08036026	16.0	435
4	0.7	09036002	12.8	250	09036026	17.0	550
6	0.7	10036002	14.0	320	10036026	18.5	660
10	0.7	11036002	16.9	480	11036026	21.7	900
16	0.7	12036002	19.0	645	12036026	24.0	1260
25 (cs)	0.9	13036002	22.5	968	13036026	28.0	1772
35 (cs)	0.9	14036002	25.0	1278	14036026	30.5	2175
50 (cs)	1.0	15036002	27.4	1688	15036026	33.7	2700
70 (cs)	1.1	16036002	32.6	2365	16036026	40.0	3805
95 (cs)	1.1	17036002	36.5	3197	17036026	44.0	4831
120 (cs)	1.2	18036002	39.7	3982	18036026	47.5	5772
150 (cs)	1.4	19036002	44.0	4872	19036026	53.2	7344
185 (cs)	1.6	20036002	49.2	6074	20036026	58.2	8813
240 (cs)	1.7	21036002	55.6	7903	21036026	65.0	11050
300 (cs)	1.8	22036002	61.6	9822	22036026	71.0	13312
400 (cs)	2.0	23036002	70.0	12533	23036026	80.5	17317

3-CORE [3G]

(Brown, Blue, Green/Yellow) (1-phase and earth)

Conductor Nominal Area (mm ²)	Insulation Thickness (mm)	Unarmoured Cable			Armoured Cable		
		Part No.	Approx. Overall Diam. (mm)	Approx. Weight (kg/km)	Part No.	Approx. Overall Diam. (mm)	Approx. Weight (kg/km)
1.5	0.7	07036006	10.5	145	07036030	15.0	390
2.5	0.7	08036006	11.4	190	08036030	16.0	435
4	0.7	09036006	12.8	250	09036030	17.0	550
6	0.7	10036006	14.0	320	10036030	18.5	660
10	0.7	11036006	16.9	480	11036030	21.7	900
16	0.7	12036006	19.0	645	12036030	24.0	1260
25 (cs)	0.9	13036006	22.5	968	13036030	28.0	1772
35 (cs)	0.9	14036006	25.0	1278	14036030	30.5	2175
50 (cs)	1.0	15036006	27.4	1688	15036030	33.7	2700
70 (cs)	1.1	16036006	32.6	2365	16036030	40.0	3805
95 (cs)	1.1	17036006	36.5	3197	17036030	44.0	4831
120 (cs)	1.2	18036006	39.7	3982	18036030	47.5	5772
150 (cs)	1.4	19036006	44.0	4872	19036030	53.2	7344
185 (cs)	1.6	20036006	49.2	6074	20036030	58.2	8813
240 (cs)	1.7	21036006	55.6	7903	21036030	65.0	11050
300 (cs)	1.8	22036006	61.6	9822	22036030	71.0	13312
400 (cs)	2.0	23036006	70.0	12533	23036030	80.5	17317

Current rating and voltage drop

For Unarmoured Cable, please refer to Table 14 & 15 (Page 60)
For Armoured Cable, please refer to Table 16 & 17 (Page 61)

(cs) : Circular Compact Stranded Conductor

0.6/1KV 2-Core ~ 5-Core

XLPE Insulated, Unarmoured & Armoured, PVC Sheathed Cable

Description: CU/XLPE/PVC or CU/XLPE/PVC/SWA/PVC-AT

Model Code: XP or XPSP-AT

4-CORE [4C]

(Brown, Black, Grey, Blue) (3-phase and neutral)

Conductor	Insulation	Unarmoured Cable			Armoured Cable		
		Part No.	Approx. Overall Diam.	Approx. Weight	Part No.	Approx. Overall Diam.	Approx. Weight
Nominal Area	Thickness		(mm)	(kg/km)		(mm)	(kg/km)
(mm ²)	(mm)						
1.5	0.7	07046600	11.5	180	07046603	15.5	430
2.5	0.7	08046600	12.5	230	08046603	16.5	495
4	0.7	09046600	14.0	315	09046603	18.0	610
6	0.7	10046600	15.0	395	10046603	20.0	810
10	0.7	11046600	18.4	590	11046603	23.2	1120
16	0.7	12046600	21.0	860	12046603	27.0	1480
25 (cs)	0.9	13046600	25.0	1265	13046603	30.8	2160
35 (s)	0.9	14046003	25.0	1600	14046027	30.5	2400
50 (s)	1.0	15046003	28.0	2100	15046027	34.0	3100
70(s)	1.1	16046003	32.0	3000	16046027	39.5	4440
95 (s)	1.1	17046003	36.0	4100	17046027	44.0	5700
120 (s)	1.2	18046003	40.3	5160	18046027	50.0	7386
150 (s)	1.4	19046003	44.6	6300	19046027	54.5	8770
185 (s)	1.6	20046003	50.5	7881	20046027	59.0	10750
240 (s)	1.7	21046003	58.0	10500	21046027	68.0	13600
300 (s)	1.8	22046003	64.0	13100	22046027	73.0	16400
400 (s)	2.0	23046003	73.0	16700	23046027	85.0	21740

4-CORE [4G]

(Brown, Black, Grey, Green/Yellow) (3-phase and earth)

Conductor	Insulation	Unarmoured Cable			Armoured Cable		
		Part No.	Approx. Overall Diam.	Approx. Weight	Part No.	Approx. Overall Diam.	Approx. Weight
Nominal Area	Thickness		(mm)	(kg/km)		(mm)	(kg/km)
(mm ²)	(mm)						
1.5	0.7	07046793	11.5	180	07046604	15.5	430
2.5	0.7	08046793	12.5	230	08046604	16.5	495
4	0.7	09046793	14.0	315	09046604	18.0	610
6	0.7	10046793	15.0	395	10046604	20.0	810
10	0.7	11046793	18.4	590	11046604	23.2	1120
16	0.7	12046793	21.0	860	12046604	27.0	1480
25 (cs)	0.9	13046793	25.0	1265	13046024	30.8	2160
35 (cs)	0.9	14046793	27.4	1665	14046024	33.8	2690
50 (cs)	1.0	15046793	31.4	2200	15046024	36.7	3365
70 (cs)	1.1	16046793	36.0	3100	16046024	43.7	4795
95 (cs)	1.1	17046793	41.3	4190	17046024	48.6	6095
120 (cs)	1.2	18046793	45.0	5060	18046024	53.2	7580
150 (cs)	1.4	19046793	49.6	6380	19046024	58.0	9190
185 (cs)	1.6	20046793	55.5	7920	20046024	64.0	11050
240 (cs)	1.7	21046793	62.7	10060	21046024	72.0	13780
300 (cs)	1.8	22046793	69.5	12500	22046024	78.4	16520
400 (cs)	2.0	23046793	78.6	16480	23046024	89.4	22120

Current rating and voltage drop

For Unarmoured Cable, please refer to Table 14 & 15 (Page 60)
For Armoured Cable, please refer to Table 16 & 17 (Page 61)

(cs) : Circular Compact Stranded Conductor
(s) : Sector Shaped Stranded Conductor

XLPE Insulated Cables



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0.6/1kV 2-Core ~ 5-Core

XLPE Insulated, Unarmoured & Armoured, PVC Sheathed Cable

Description: CU/XLPE/PVC or CU/XLPE/PVC/SWA/PVC-AT

Model Code: XP or XPSP-AT

5-CORE [5G]

(Brown, Black, Grey, Blue, Green/Yellow) (3-phase, neutral and earth)

Conductor Nominal Area (mm ²)	Insulation Thickness (mm)	Unarmoured Cable			Armoured Cable		
		Part No.	Approx. Overall Diam. (mm)	Approx. Weight (kg/km)	Part No.	Approx. Overall Diam. (mm)	Approx. Weight (kg/km)
1.5	0.7	07056004	12.8	208	07056028	16.8	455
2.5	0.7	08056004	13.9	263	08056028	17.8	540
4	0.7	09056004	15.4	355	09056028	20.0	795
6	0.7	10056004	16.9	465	10056028	21.8	956
10	0.7	11056004	19.8	700	11056028	24.8	1272
16	0.7	12056004	22.5	1020	12056028	28.6	1845
25 (cs)	0.9	13056004	27.0	1530	13056028	32.6	2500
35 (cs)	0.9	14056004	30.0	2035	14056028	36.2	3140
50 (cs)	1.0	15056004	33.7	2720	15056028	41.5	4300
70 (cs)	1.1	16056004	39.6	3825	16056028	46.8	5585
95 (cs)	1.1	17056004	45.0	5185	17056028	53.0	7675
120 (cs)	1.2	18056004	49.2	6320	18056028	57.6	9125
150 (cs)	1.4	19056004	54.5	7800	19056028	63.0	10824
185 (cs)	1.6	20056004	61.1	9800	20056028	70.0	13211
240 (cs)	1.7	21056004	69.2	12520	21056028	79.2	17466

Current rating and voltage drop

For Unarmoured Cable, please refer to Table 14 & 15 (Page 60)
For Armoured Cable, please refer to Table 16 & 17 (Page 61)

(cs) : Circular Compact Stranded Conductor

Current Rating and Voltage Drop

XLPE (or LSZH) Insulated Cables
Multi-Core, Unarmoured



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Multi-Core Cables with XLPE (or LSZH) Insulation, PVC (or LSZH) Outersheath 300/500V or 0.6/1kV

Table 14 : Current-Carrying Capacities (Amp)
[CU/XLPE/PVC, CU/XLPE/LSZH or CU/MT/XLPE/LSZH Cables]

Conductor Operating Temperature : 90°C
Ambient Temperature : 30°C

IEC 60502-1

Conductor Cross-sectional Area	Reference Method 4 (enclosed in an conduit insulated wall etc)	Reference Method 3 (enclosed in conduit on a wall or ceiling, or in trunking)		Reference Method 1 (clipped direct)		Reference Method 11 (on a perforated cable tray), or Reference Method 13 (in free air)	
	one 3-core or 4-core cable, 3-phase a.c.	one 2-core cable, 1-phase a.c. or d.c.	one 3-core or 4-core cable, 3-phase a.c.	one 2-core cable, 1-phase a.c. or d.c.	one 3-core or 4-core cable, 3-phase a.c.	one 2-core cable, 1-phase a.c. or d.c.	one 3-core or 4-core cable, 3-phase a.c.
1	2	3	4	5	6	7	8
mm ²	A	A	A	A	A	A	A
1.5	16.5	22	19.5	24	22	26	23
2.5	22	30	26	33	30	36	32
4	30	40	35	45	40	49	42
6	38	51	44	58	52	63	54
10	51	69	60	80	71	86	75
16	68	91	80	107	96	115	100
25	89	119	105	138	119	149	127
35	109	146	128	171	147	185	158
50	130	175	154	209	179	225	192
70	164	221	194	269	229	289	246
95	197	265	233	328	278	352	298
120	227	305	268	382	322	410	346
150	259	334	300	441	371	473	399
185	295	384	340	506	424	542	456
240	346	459	398	599	500	641	538
300	396	532	455	693	576	741	621
400	472	625	536	803	667	865	741

Note : For rating factors of ambient temperature other than 30°C, please refer to Table 25 (Page 66)

Table 15 : Voltage Drop (Per Amp Per Meter)
[CU/XLPE/PVC, CU/XLPE/LSZH or CU/MT/XLPE/LSZH Cables]

Conductor Operating Temperature : 90°C

IEC 60502-1

Conductor Cross-sectional Area	2-core cable, d.c.	2-core cable, 1-phase a.c.			3-core or 4-core cables, 3-phase a.c.		
	2	3			4		
1	2	3			4		
mm ²	mV/A/m	mV/A/m			mV/A/m		
1.5	31	31			27		
2.5	19	19			16		
4	12	12			10		
6	7.9	7.9			6.8		
10	4.7	4.7			4.0		
16	2.9	2.9			2.5		
		r	x	z	r	x	z
25	1.85	1.85	0.160	1.90	1.60	0.140	1.65
35	1.35	1.35	0.155	1.35	1.15	0.135	1.15
50	0.98	0.99	0.155	1.00	0.86	0.135	0.87
70	0.67	0.67	0.150	0.69	0.59	0.130	0.60
95	0.49	0.50	0.150	0.52	0.43	0.130	0.45
120	0.39	0.40	0.145	0.42	0.34	0.130	0.37
150	0.31	0.32	0.145	0.35	0.28	0.125	0.30
185	0.25	0.26	0.145	0.29	0.22	0.125	0.26
240	0.195	0.200	0.140	0.24	0.175	0.125	0.21
300	0.155	0.160	0.140	0.21	0.140	0.120	0.185
400	0.120	0.130	0.140	0.190	0.115	0.120	0.165

Note : r = resistive component; x = reactive component; z = impedance value

Current Rating and Voltage Drop

XLPE (or LSZH) Insulated Cables
Multi-Core, Armoured



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Multi-Core Cables with XLPE (or LSZH) Insulation, Armoured, PVC or LSZH Outersheath 0.6/1kV

Table 16 : Current-Carrying Capacities (Amp)

[CU/XLPE/PVC/SWA/PVC, CU/XLPE/LSZH/SWA/LSZH, CU/MT/XLPE/LSZH/SWA/LSZH Cables]

Conductor Operating Temperature : 90°C
Ambient Temperature : 30°C
Ground Temperature : 15°C

Depth of Laying : 0.5m

BS 6724
IEC 60502-1
Soil Thermal Resistivity : 1.2 k•m/W

Conductor Cross-sectional Area	Reference Method 1 (clipped direct)		Reference Method 11 (on a perforated horizontal cable tray) or Reference Method 13 (in free air)		In single-way ducts		Laid direct in ground	
	one 2-core cable, 1-phase a.c. or d.c.	one 3-core or 4-core cable, 3-phase a.c.	one 2-core cable, 1-phase a.c. or d.c.	one 3-core or 4-core cable, 3-phase a.c.	one 2-core cable, 1-phase a.c. or d.c.	one 3-core or 4-core cable, 3-phase a.c.	one 2-core cable, 1-phase a.c. or d.c.	one 3-core or 4-core cable, 3-phase a.c.
1	2	3	4	5	6	7	8	9
mm ²	A	A	A	A	A	A	A	A
1.5	27	23	29	25	-	23	-	28
2.5	36	31	39	33	-	30	-	36
4	49	42	52	44	-	40	-	48
6	62	53	66	56	-	50	-	60
10	85	73	90	78	-	65	-	80
16	110	94	115	99	115	94	140	115
25	146	124	152	131	145	125	180	150
35	180	154	188	162	175	150	215	180
50	219	187	228	197	210	175	255	215
70	279	238	291	251	260	215	315	265
95	338	289	354	304	310	260	380	315
120	392	335	410	353	355	300	430	360
150	451	386	472	406	400	335	480	405
185	515	441	539	463	455	380	540	460
240	607	520	636	546	520	440	630	530
300	698	599	732	628	590	495	700	590
400	787	673	847	728	660	560	790	670

Note : For rating factors of ambient temperature other than 30°C, please refer to Table 25 (Page 66)
For rating factors of ground temperature other than 15°C, please refer to Table 26 (Page 66)

Table 17 : Voltage Drop (Per Amp Per Meter)

[CU/XLPE/PVC/SWA/PVC, CU/XLPE/LSZH/SWA/LSZH, CU/MT/XLPE/LSZH/SWA/LSZH Cables]

Conductor Operating Temperature : 90°C

BS 6724
IEC 60502-1

Conductor Cross-sectional Area	2-core cable, d.c.	2-core cables, 1-phase a.c.			3-core or 4-core cables, 3-phase a.c.			2-core cables, 1-phase a.c.	3-core or 4-core cables, 3-phase a.c.
								In ducts or in ground	In ducts or in ground
1	2	3			4			5	6
mm ²	mV/A/m	mV/A/m			mV/A/m			mV/A/m	mV/A/m
1.5	31.0	31.0			27.0			31.0	25.0
2.5	19.0	19.0			16.0			19.0	15.0
4	12.0	12.0			10.0			12.0	9.7
6	7.9	7.9			6.8			7.9	6.5
10	4.7	4.7			4.0			4.7	3.9
16	2.9	2.9			2.5			2.9	2.6
		r	x	z	r	x	z		
25	1.850	1.850	0.160	1.900	1.600	0.140	1.650	1.900	1.600
35	1.350	1.350	0.155	1.350	1.150	0.135	1.150	1.350	1.200
50	0.980	0.990	0.155	1.000	0.860	0.135	0.870	1.000	0.870
70	0.670	0.670	0.150	0.690	0.590	0.130	0.600	0.690	0.610
95	0.490	0.500	0.150	0.520	0.430	0.130	0.450	0.520	0.450
120	0.390	0.400	0.145	0.420	0.340	0.130	0.370	0.420	0.360
150	0.310	0.320	0.145	0.350	0.280	0.125	0.300	0.350	0.300
185	0.250	0.260	0.145	0.290	0.220	0.125	0.260	0.290	0.250
240	0.195	0.200	0.140	0.240	0.175	0.125	0.210	0.240	0.210
300	0.155	0.160	0.140	0.210	0.140	0.120	0.185	0.210	0.190
400	0.120	0.130	0.140	0.190	0.115	0.120	0.165	0.190	0.180

Note : r = resistive component; x = reactive component; z = impedance value

Table 25 : Correction Factor for Ambient Air Temperature Other Than 30°C to be Applied to the Current-Carrying Capacities for Cables in Free Air

Ambient Temperature (°C)	Insulation				
	PVC (70°C)	XLPE (90°C)	HT-PVC (90°C)	Rubber (85°C)	Rubber (60°C)
10	1.22	1.15	-	-	-
15	1.17	1.12	-	-	-
20	1.12	1.08	-	-	-
25	1.06	1.04	1.03	1.02	-
30	1.00	1.00	1.00	1.00	1.00
35	0.94	0.96	0.97	0.95	0.91
40	0.87	0.91	0.94	0.90	0.82
45	0.79	0.87	0.91	0.85	0.71
50	0.71	0.82	0.87	0.80	0.58
55	0.61	0.76	0.84	0.74	0.41
60	0.50	0.71	0.80	0.67	-
65	0.35	0.65	0.76	0.60	-
70	-	0.58	0.71	0.52	-
75	-	0.50	0.61	0.43	-
80	-	0.41	0.50	0.30	-
85	-	0.29	0.35	-	-

Table 26 : Correction Factor for Ambient Ground Temperature Other Than 15°C to be Applied to the Current-Carrying Capacities for Cables in Ducts or in Ground

Ground Temperature (°C)	Insulation	
	PVC (70°C)	XLPE (90°C)
10	1.04	1.03
15	1.00	1.00
20	0.95	0.97
25	0.90	0.93
30	0.85	0.89
35	0.80	0.86
40	0.74	0.82
45	0.67	0.77
50	0.60	0.73
55	-	0.68
60	-	0.63
65	-	0.58