

Cu/XLPE/PVC

XLPE Insulated, PVC Sheathed, Unarmoured Cables, BS7889

APPLICATION AND DESCRIPTION



© **Conductor:** IEC 60228 or BS EN 60228 Class 2

© **Insulation:** XLPE insulation

-**Identification:** 1 Core: Brown or Blue

2 Cores: Brown, Blue

3 Cores: Brown, Blue, Yellow/Green or Brown, Black, Grey

4 Cores: Blue, Brown, Black, Grey

5 Cores: Green/Yellow, Blue, Brown, Black, Grey

Above 5 Cores: white color with black number

Other color available upon request

© **Sheath:** PVC sheath

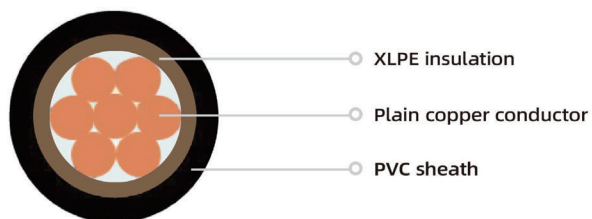
-Black color, other colors available upon request

TECHNICAL CHARACTERISTICS

TECHNICAL CHARACTERISTICS	
Working voltage	600/1000V
Minimum bending radius	single cable-10×Overall diameter Multi core cable- 8×Overall diameter
Operating temperature	-15°C to +90°C
Flame retardant	BS EN 60332-1-2
Insulation resistance	20MΩ·km

BS7889

Single core(unarmoured)



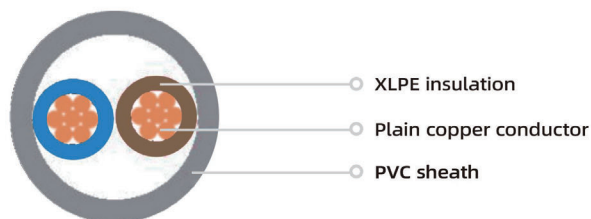
Nominal cross sectional area	Approx. overall diameter	Approx. cable weight	Maximum conductor resistance at 20°C	Short circuit rating (1 sec)	Current Rating			Voltage Drop		
					three phase AC flat touching free air	three phase AC trefoil touching free air	three phase AC horizontal flat spaced by one diameter free air	three phase AC trefoil touching free air	three phase AC flat touching free air	three phase AC flat spaced by one diameter free air
mm ²	mm	kg/km	Ohms/km	kA	Amps			mV/A/m		

Single Core

1.5	6.0	50	12.1	0.2	-	-	-	27	27	27
2.5	6.5	70	7.41	0.35	-	-	-	16	16	16
4.0	7.0	80	4.61	0.57	-	-	-	10	10	10
6.0	7.5	110	3.08	0.86	-	-	-	6.8	6.8	6.8
10	8.5	150	1.83	1.4	-	-	-	4.0	4.0	4.0
16	9.5	215	1.15	2.2	-	-	-	2.5	2.5	2.5
25	11.5	315	0.727	3.6	141	135	182	1.60	1.60	1.65
35	12.0	415	0.524	5.00	176	169	226	1.15	1.15	1.20
50	13.0	555	0.387	7.10	216	207	275	0.87	0.87	0.89
70	15.0	760	0.268	10.00	279	268	353	0.61	0.62	0.65
95	17.0	1025	0.193	13.60	342	328	430	0.45	0.46	0.49
120	18.5	1270	0.153	17.20	400	383	500	0.37	0.38	0.42
150	21.5	1575	0.124	21.40	464	444	577	0.31	0.32	0.37
185	23.0	1955	0.0991	26.50	533	510	661	0.26	0.28	0.33
240	26.0	2470	0.0754	34.30	634	607	781	0.22	0.24	0.29
300	28.0	3155	0.0601	42.90	736	703	902	0.195	0.21	0.27
400	32.0	4049	0.047	57.20	868	823	1085	0.175	0.195	0.26
500	36.0	5100	0.0366	71.50	998	946	1253	0.160	0.180	0.25
630	40.0	6410	0.0283	90.10	1151	1088	1454	0.150	0.170	0.24
800	47.0	8200	0.0221	114.40	1275	1214	1581	0.130	0.155	0.23
1000	52.0	9860	0.0176	143.00	1436	1349	1775	0.140	0.165	0.24

BS7889

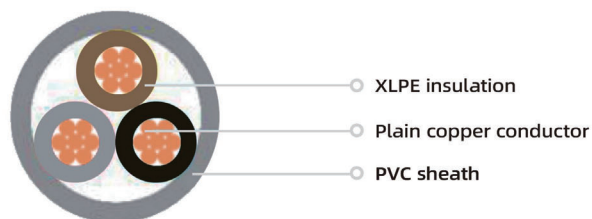
Two cores(unarmoured)



Nominal cross sectional area	Approx. overall diameter	Approx. cable weight	Maximum conductor resistance at 20°C	Short circuit rating (1 sec)	Current Rating	Voltage Drop
					single phase AC or DC horizontal or vertical free air	single phase AC
mm ²	mm	kg/km	Ohms/km	kA	Amps	mV/A/m
Two Core						
1.5	10.0	125	12.1	0.2	26	31
2.5	11.5	155	7.41	0.35	36	19
4	12.5	195	4.61	0.57	49	12
6.0	13.5	255	3.08	0.86	63	7.9
10	15.5	370	1.83	1.4	86	4.7
16	17.0	500	1.15	2.2	115	2.9
25	20.0	700	0.727	3.6	149	1.90
35	22.0	900	0.524	5.00	185	1.35
50	25.0	1250	0.387	7.10	225	1.00
70	29.0	1600	0.268	10.00	289	0.69
95	32.0	2250	0.193	13.60	352	0.52
120	36.0	2750	0.153	17.20	410	0.42
150	40.0	3510	0.124	21.40	473	0.35
185	44.0	4200	0.0991	26.50	542	0.29
240	50.0	5500	0.0754	34.30	641	0.24
300	55.0	6950	0.0601	42.90	741	0.21
400	60.0	8400	0.047	57.20	865	0.19

BS7889

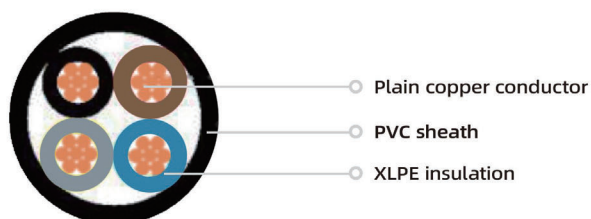
Three cores(unarmoured)



Nominal cross sectional area	Approx. overall diameter	Approx. cable weight	Maximum conductor resistance at 20°C	Short circuit rating (1 sec)	Current Rating	Voltage Drop
					three phase AC horizontal or vertical free air	three phase AC
mm ²	mm	kg/km	Ohms/km	kA	Amps	mV/A/m
Three Core						
1.5	10.5	150	12.1	0.2	23	27
2.5	11.0	190	7.41	0.35	32	16
4	12.5	250	4.61	0.57	42	10
6.0	14.5	320	3.08	0.86	54	6.8
10	15.5	465	1.83	1.4	75	4.0
16	18.5	670	1.15	2.2	100	2.5
25	19.5	965	0.727	3.6	127	1.65
35	22.0	1290	0.524	5.00	158	1.15
50	26.0	1750	0.387	7.10	192	0.87
70	28.5	2450	0.268	10.00	246	0.60
95	32.5	3200	0.193	13.60	298	0.45
120	35.5	4010	0.153	17.20	346	0.37
150	40.0	5050	0.124	21.40	399	0.30
185	44.5	6105	0.0991	26.50	456	0.26
240	54.0	8050	0.0754	34.30	538	0.21
300	60.5	9998	0.0601	42.90	621	0.185
400	66.0	13210	0.047	57.20	741	0.165

BS7889

Four cores(unarmoured)



Nominal cross sectional area	Approx. overall diameter	Approx. cable weight	Maximum conductor resistance at 20°C	Short circuit rating (1 sec)	Current Rating	Voltage Drop
					three phase AC horizontal or vertical free air	three phase AC
mm²	mm	kg/km	Ohms/km	kA	Amps	mV/A/m

Four Core

1.5	11.0	170	12.1	0.20	23	27
2.5	12.0	230	7.41	0.35	32	16
4	14.0	305	4.61	0.57	42	10
6.0	15.5	400	3.08	0.86	54	6.8
10	18.0	585	1.83	1.4	75	4.0
16	20.0	835	1.15	2.2	100	2.5
25	22.0	1210	0.727	3.6	127	1.65
35	24.5	1670	0.524	5.00	158	1.15
50	26.5	2250	0.387	7.10	192	0.87
70	32.0	3015	0.268	10.00	246	0.60
95	36.5	4085	0.193	13.60	298	0.45
120	40.5	5320	0.153	17.20	346	0.37
150	44.5	6510	0.124	21.40	399	0.30
185	51.0	8050	0.0991	26.50	456	0.26
240	58.5	10520	0.0754	34.30	538	0.21
300	64.5	13130	0.0601	42.90	621	0.185
400	73.5	16850	0.0470	57.20	741	0.165

TEMPERATURE RATING FACTORS

Ambient Temperature °C	25	30	35	40	45	50	55	60	65
Rating Factor	1.02	1.00	0.96	0.91	0.87	0.82	0.76	0.71	0.65

※Note: Ambient Temperature 30°C

Conductor Operation Temperature 90°C

If current rating and buildings is required reference should be made to BS7671 (IEE Wiring Regs)

Complied with the HongKong EMSD COP, and the rating is the average of the conductor cross-sectional area and installation method, and the overall error is within ±5%