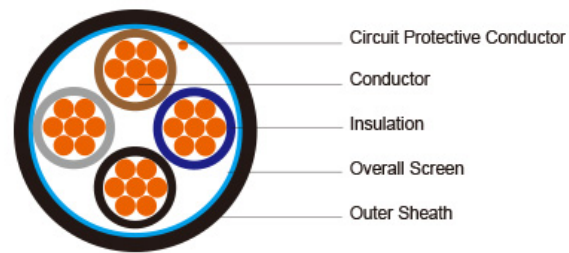


**300/500V XLPE Insulated, PVC Sheathed, Screened Power Cables (2-4 Cores)**



CU/XLPE/OS/PVC 300/500V Class 2

**Application:**

The cables are mainly used in power stations, mass transit underground passenger systems, airports, petrochemical plants, hotels, hospitals, and high-rise buildings.

**STANDARDS:**

Basic design adapted to BS 5308

**FIRE PERFORMANCE**

**Flame Retardance (Single Vertical Wire Test)\*\***

EN 60332-1-2; IEC 60332-1-2; BS EN 60332-1-2; VDE 0482-332-1 ; NBN C 30-004 (cat. F1); NF C32-070-2.1(C2); CEI 20-35/1-2; EN 50265-2-1\*; DIN VDE 0482-265-2-1\*

**Reduced Fire Propagation (Vertically-mounted bundled wires & cable test)\*\***

EN 60332-3-24 (cat. C); IEC 60332-3-24; BS EN 60332-3-24; VDE 0482-332-3; NBN C 30-004 (cat. F2); NF C32-070-2.2(C1); CEI 20-22/3-4; EN 50266-2-4\*; DIN VDE 0482-266-2-4

Note: Asterisk \*\* denotes that the standard compliance is optional, depending on the oxygen index of the PVC compound and the cable design.

**VOLTAGE RATING**

300/500V

**CABLE CONSTRUCTION**

Conductor: Plain annealed copper wire, stranded according to IEC(EN) 60228 class 2.

Insulation: Extruded cross-linked XLPE compound.

Filler, binder(if any): PP, Mylar tape

Circuit Protective Conductor: Annealed plain copper (class 2)

Overall Screen: Aluminium/polyester tape

Outer Sheath: Thermoplastic PVC compound. UV resistance, hydrocarbon resistance, oil resistance, anti rodent and anti termite properties can be offered as option. Compliance to fire performance standard (IEC 60332-1, IEC 60332-3, UL 1581, UL 1666 etc) depends on the oxygen index of the PVC compound and the overall cable design. LSPVC can also be provided upon request.

**COLOUR CODE**

Insulation Colour as per BS7671

	With Earth Conductor	Without Earth Conductor
2Cores	-	Brown, Blue
3Cores	Yellow/Green, Brown, Blue	Brown, Gray, Black
4Cores	Yellow/Green, Brown, Gray, Black	Brown, Gray, Black, Blue
5Cores	Yellow/Green, Brown, Gray, Black, Blue	Brown, Gray, Black, Blue, Black
Above 5 Cores	Yellow/Green, Black Numbered	Black Numbered

Sheath Colour: Black (other colors upon request)

**Physical AND THERMAL PROPERTIES**

Temperature range during operation: Max.90°C for XLPE

250°C in short-circuit for 5secs max.

Minimum bending radius: 6 x Overall Diameter

**CONSTRUCTION PARAMETERS**

Conductor								
No. of Core X Cross Section	No./Nominal Diameter of Strands	Nominal Overall Diameter Conductor	Nominal Insulation Thickness	Cross-Section Area Of Circuit Protective Conductor	Nominal Sheath Thickness	Nominal Overall Diameter	Max.Dc Resistance Of Conductor @20°C	Approx. Weight
Noxmm2	No./mm	mm	mm	mm2	mm	mm	Ω/km	kg/km
2x1.0	7/0.44	1.32	0.6	1.0	0.9	8.1	18.1	79
2x1.5	7/0.53	1.59	0.7	1.5	0.9	9.1	12.1	102
2x2.5	7/0.67	2.01	0.8	2.5	1.0	10.5	7.41	146
2x4.0	7/0.85	2.55	0.8	4.0	1.1	11.8	4.61	205
3x1.0	7/0.44	1.32	0.6	1.0	0.9	8.6	18.1	98
3x1.5	7/0.53	1.59	0.7	1.5	0.9	9.6	12.1	129
3x2.5	7/0.67	2.01	0.8	2.5	1.0	11.1	7.41	185
3x4.0	7/0.85	2.55	0.8	4.0	1.1	12.5	4.61	262
4x1.0	7/0.44	1.32	0.6	1.0	1.0	9.5	18.1	123
4x1.5	7/0.53	1.59	0.7	1.5	1.0	10.6	12.1	162
4x2.5	7/0.67	2.01	0.8	2.5	1.1	12.3	7.41	233
4x4.0	7/0.85	2.55	0.8	4.0	1.2	13.9	4.61	329

**Electrical Properties**

Conductor Operating Temperature : 90°C

Ambient Temperature : 30°C

**Current-Carrying Capacities (Amp)**

Conductor or cross-sectional area	Reference Method 4 (enclosed in conduit in thermally insulating wall etc)		Reference Method 3 (enclosed in conduit on a wall or in trunking etc)		Reference Method 1 (clipped direct)		Reference Method 11 (on a perforated cable tray, horizontal or vertical)		Reference Method 12 (free air)		
	2 cables, single phase	3 or 4 cables, 3-phase a.c.	2 cables, single phase	3 or 4 cables, 3-phase a.c.	2 cables, single phase a.c. or d.c. flat	3 or 4 cables, 3-phase a.c. flat and	2 cables, single phase a.c. or d.c. or	3 or 4 cables, 3-phase a.c. flat and	Horizontal flat spaced	Vertical flat spaced	Trefoil
	2 cables, single phase	3 or 4 cables, 3-phase a.c.	2 cables, single phase	3 or 4 cables, 3-phase a.c.	2 cables, single phase a.c. or d.c. flat	3 or 4 cables, 3-phase a.c. flat and	2 cables, single phase a.c. or d.c. or	3 or 4 cables, 3-phase a.c. flat and	2 cables, single-phase a.c. or d.c. or 3 cables	2 cables, single phase	3 cables, trefoil 3-phase

	a.c. or d.c.		a.c. or d.c		and touchin g	touchin g or trefoil	flat and touchin g	touchin g or trefoil	three phase	a.c. or d.c. or 3 cables three phase	a.c.
1	2	3	4	5	6	7	8	9	10	11	12
mm2	A	A	A	A	A	A	A	A	A	A	A
1.5	18	17	22	19	25	23	-	-	-	-	-
2.5	24	23	30	26	34	31	-	-	-	-	-
4	33	30	40	35	46	41	-	-	-	-	-

**Voltage Drop (Per Amp Per Meter)**

Nominal Cross Section Area	2 cables d.c.	2 cables, single-phase a.c.		3 or 4 cables, 3-phase a.c.		
		Ref. Methods 3 and 4 (enclosed in conduit etc, in or on a wall)	Ref. Methods 1 and 11 (clipped direct or on trays touching)	Ref. Methods 3 and 4 (enclosed in conduit etc, in or on a wall)	Ref. Methods 1, 11 and 12 (in trefoil)	Ref. Methods 1 and 11(Flat and touching)
1	2	3	4	5	6	7
mm2	mV/A/m	mV/A/m	mV/A/m	mV/A/m	mV/A/m	mV/A/m
1.5	31	31	27	27	27	27
2.5	19	19	16	16	16	16
4	33	12	10	10	10	10