INDO CABLES
EVERY CONNECTION MATTERS

PRODUCT DATASHEET
LV Power Cable · IEC 60502-1

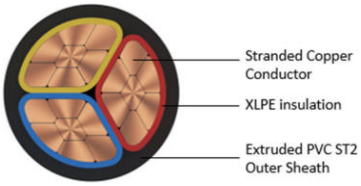
LV-01
SHEET NO.

LOW VOLTAGE POWER CABLE

XLPE insulated · unarmoured · PVC sheathed · manufactured to IEC 60502-1

0.6/1 kV	**+90 °C**	**250 °C**	**3.5 kV AC**
Rated voltage (U_m = 1.2 kV)	Max. operating temperature	Max. short-circuit temperature	Test voltage

CABLE / TOP VIEW · INDOCABLES sheath print



CROSS-SECTION · construction callouts

Images not to scale. Follow table for dimensions.

APPLICATION

INDOCABLE LV CU IEC 60502-1 0.6/1 KV MC-3 UA, stranded compacted copper conductor, XLPE insulated, and PVC sheathed unarmoured cable confirming to IEC 60502-1 is suitable for fixed installation such as distribution network or industrial installation. These cable cables are designed for systems with rated AC voltage 1KV (Um=1.2 KV) & ≤1.5 KV (with a maximum 1.8 KV DC) between two live conductor.

CONSTRUCTION

Conductor	Circular compacted or stranded copper conductor as per IEC 60228, class 2
Insulation	XLPE as per IEC 60502-1
Outer sheath	Extruded polyvinylchloride (ST2) or polyethylene (ST7) or halogen-free (ST8) as per IEC 60502-1
Core identification	Red, yellow and black
Bending radius	Fixed installation: 12 × overall diameter
Note	Also available with EPR/HEPR insulation type.

OUTSTANDING FEATURES

- High life
- High insulation resistance
- Flame retardant
- Low halogen · low smoke
- UV resistant

STANDARD FOLLOWS

IEC 60228 · IEC 60502-1 · IEC 60332-1-2

COMPLIANCE

Conductor resistance	IEC 60228
Insulation resistance	IEC 60502-1
Shrinkage test	IEC 60811-503
Flame retardant test	IEC 60332-1-2

WEIGHT & DIMENSION DATA

Product code	Nominal cross-sectional area mm²	Nominal insulation thickness mm	Nominal sheath thickness mm	Overall diameter (approx.) mm	Weight (approx.) kg/km
IC-PW-03-00400-CU-2XL-2XY-1100-IEC60502P1-FRLS	4	0.70	1.30	13.0	250
IC-PW-03-00600-CU-2XL-2XY-1100-IEC60502P1-FRLS	6	0.70	1.40	14.5	330
IC-PW-03-01000-CU-2XL-2XY-1100-IEC60502P1-FRLS	10	0.70	1.40	16.3	470
IC-PW-03-01600-CU-2XL-2XY-1100-IEC60502P1-FRLS	16	0.70	1.50	18.5	650
IC-PW-03-02500-CU-2XL-2XY-1100-IEC60502P1-FRLS	25	0.90	1.50	17.2	850
IC-PW-03-03500-CU-2XL-2XY-1100-IEC60502P1-FRLS	35	0.90	1.60	19.3	1140
IC-PW-03-05000-CU-2XL-2XY-1100-IEC60502P1-FRLS	50	1.00	1.70	22.4	1610
IC-PW-03-07000-CU-2XL-2XY-1100-IEC60502P1-FRLS	70	1.10	1.90	25.9	2230
IC-PW-03-09500-CU-2XL-2XY-1100-IEC60502P1-FRLS	95	1.10	2.00	28.9	2950
IC-PW-03-12000-CU-2XL-2XY-1100-IEC60502P1-FRLS	120	1.20	2.10	31.8	3710
IC-PW-03-15000-CU-2XL-2XY-1100-IEC60502P1-FRLS	150	1.40	2.20	35.5	4610
IC-PW-03-18500-CU-2XL-2XY-1100-IEC60502P1-FRLS	185	1.60	2.40	39.6	5700
IC-PW-03-24000-CU-2XL-2XY-1100-IEC60502P1-FRLS	240	1.70	2.50	44.1	7290
IC-PW-03-30000-CU-2XL-2XY-1100-IEC60502P1-FRLS	300	1.80	2.70	48.7	9100
IC-PW-03-40000-CU-2XL-2XY-1100-IEC60502P1-FRLS	400	2.00	3.00	54.4	11370
IC-PW-03-50000-CU-2XL-2XY-1100-IEC60502P1-FRLS	500	2.20	3.20	61.8	15050
IC-PW-03-63000-CU-2XL-2XY-1100-IEC60502P1-FRLS	630	2.40	3.40	68.7	18870

All product codes pending registration in the Indo Cables Item Master — see run report.

ELECTRICAL CHARACTERISTICS

Current rating and maximum DC conductor resistance.

Nominal cross-sectional area mm²	Buried direct in the ground at 20°C Amp.	In single-way ducts at 30°C Amp.	In air at 30°C Amp.	Maximum DC conductor resistance at 20°C Ω/km
4	49	45	45	4.611
6	60	56	57	3.08
10	80	75	77	1.831
16	103	96	98	1.149
25	132	122	131	0.728
35	158	146	162	0.524
50	187	173	197	0.386
70	229	211	249	0.268
95	274	252	307	0.193
120	310	284	352	0.154
150	347	317	402	0.124
185	391	357	464	0.0991
240	451	409	550	0.0755
300	507	456	631	0.0600
400	570	508	728	0.0471
500	640	562	836	0.0366
630	714	616	957	0.0282

90°C Max. conductor temperature	**30°C** Ambient air temperature	**20°C** Ground temperature	**750 mm** Depth of laying	**1.5 Km/W** Thermal resistivity of soil

DE-RATING FACTORS

Current rating de-rating factors for other than 30°C ambient air temperature.

Air temperature °C	20	25	35	40	45	50	55	60
De-rating factor	1.08	1.04	0.96	0.91	0.87	0.82	0.76	0.71

Current rating de-rating factors for other than 20°C ground temperature.

Ground temperature °C	10	15	25	30	35	40	45	50
De-rating factor	1.07	1.04	0.96	0.93	0.89	0.85	0.8	0.76

Current rating de-rating factors for other than 30°C ground temperature for cables in ducts.

Ground temperature °C	15	25	35	40	45	50
De-rating factor	1.12	1.04	0.96	0.91	0.87	0.82

OUR ACCREDITATIONS & APPROVAL

ISO 9001
Cert. 99 100 22646 (TÜV SÜD)

ISI
BIS standard mark

RoHS
Compliant

REACH
Compliant

Make in India
Manufactured in India