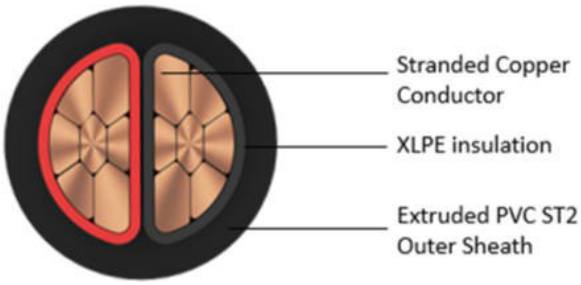
LOW VOLTAGE POWER CABLE · LV CU IEC 60502-1 · 2 CORE UNARMOURED

0.6/1 (1.2) KV · 2 CORE COPPER

Stranded compacted copper conductor · XLPE insulated · unarmoured · PVC sheathed to IEC 60502-1

0.6/1 (1.2) kV	+90 °C max.	250 °C	3.5 kV AC
Nominal voltage	Operating temperature	Short-circuit temperature	Test voltage

CABLE / SIDE VIEW · INDOCABLES sheath print



CROSS-SECTION · construction callouts

Images not to scale. Follow table for dimensions

APPLICATION

INDOCABLES LV CU IEC 60502-1 0.6/1 KV MC-2 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
Armouring	Galvanized steel wire armoured (SWA) §
Outer sheath	Extruded Polyvinylchloride (ST2) or Polyethylene (ST7) or Halogen free (ST8) as per IEC 60502-1
Core identification	Red and Black
Bending radius	Fixed Installation: 12 x Overall diameter

§ The source lists galvanized steel wire armouring on a cable it designates unarmoured (MC-2 UA), and its cross-section shows no armour layer — reproduced as written, flagged for check.

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

NOTES

The above cable is also available with EPR/HEPR insulation type.

COMPLIANCE

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

OUR ACCREDITATIONS & APPROVAL

ISI
Bureau of Indian Standards · CM/L 6200267409

ISO 9001
Cert. 99 100 22646 (TÜV SÜD)

RoHS
Compliant

REACH
Compliant

Make in India
Manufactured in India

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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-02-00400-CU-2XL-2XY-1100-IEC60502P1-FRLS †	4	0.70	1.30	12.4	200
IC-PW-02-00600-CU-2XL-2XY-1100-IEC60502P1-FRLS †	6	0.70	1.40	13.8	260
IC-PW-02-01000-CU-2XL-2XY-1100-IEC60502P1-FRLS †	10	0.70	1.40	15.5	350
IC-PW-02-01600-CU-2XL-2XY-1100-IEC60502P1-FRLS †	16	0.70	1.50	17.8	490
IC-PW-02-02500-CU-2XL-2XY-1100-IEC60502P1-FRLS †	25	0.90	1.50	15.7 ‡	590
IC-PW-02-03500-CU-2XL-2XY-1100-IEC60502P1-FRLS †	35	0.90	1.60	17.5 ‡	780
IC-PW-02-05000-CU-2XL-2XY-1100-IEC60502P1-FRLS †	50	1.00	1.70	20.3	1100
IC-PW-02-07000-CU-2XL-2XY-1100-IEC60502P1-FRLS †	70	1.10	1.80	23.3	1510
IC-PW-02-09500-CU-2XL-2XY-1100-IEC60502P1-FRLS †	95	1.10	1.90	25.9	2000
IC-PW-02-12000-CU-2XL-2XY-1100-IEC60502P1-FRLS †	120	1.20	2.00	27.8	2500
IC-PW-02-15000-CU-2XL-2XY-1100-IEC60502P1-FRLS †	150	1.40	2.20	31.2	3120
IC-PW-02-18500-CU-2XL-2XY-1100-IEC60502P1-FRLS †	185	1.60	2.30	34.6	3850
IC-PW-02-24000-CU-2XL-2XY-1100-IEC60502P1-FRLS †	240	1.70	2.50	38.6	4930
IC-PW-02-30000-CU-2XL-2XY-1100-IEC60502P1-FRLS †	300	1.80	2.60	42.5	6130
IC-PW-02-40000-CU-2XL-2XY-1100-IEC60502P1-FRLS †	400	2.00	2.90	47.4	7660
IC-PW-02-50000-CU-2XL-2XY-1100-IEC60502P1-FRLS †	500	2.20	3.10	53.8	10130
IC-PW-02-63000-CU-2XL-2XY-1100-IEC60502P1-FRLS †	630	2.40	3.30	59.8	12690

The above data is approximate & subject to manufacturing tolerance. Codes read 02 = 2 core · CU · 2XL XLPE · 2XY unarmoured, PVC sheathed · 1100 V grade · IEC 60502-1 · FRLS.

† All seventeen codes are derived from the Indo Cables code structure — the Item Master carries no IEC 60502-1 rows at all, so none could be looked up. Flagged for the Item Master Steward. ‡ The source gives 25 mm² (15.7 mm) and 35 mm² (17.5 mm) a smaller overall diameter than 16 mm² (17.8 mm) — reproduced as written, flagged for check.

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ELECTRICAL CHARACTERISTICS

Current ratting 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	58	45	53	4.61
6	72	56	67	3.08
10	96	75	91	1.83
16	124	96	119	1.15
25	159	122	154	0.727
35	190	146	189	0.524
50	225	173	229	0.387
70	273	211	288	0.268
95	326	252	354	0.193
120	367	284	405	0.153
150	409	317	461	0.124
185	459	357	530	0.0991
240	525	409	623	0.0754
300	584	456	708	0.0601
400	650	508	807	0.047
500	718	562	914	0.0366
630	786	616	1030	0.0283

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

The source splits this table in two — 4–95 mm² and 120–630 mm² under repeated headings; the seventeen rows are reproduced here as one run. Soil thermal resistivity is printed “1.5 Km/W” in the source — reproduced as written, flagged for check (the IEC unit is K·m/W).

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DE-RATING FACTOR

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

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

Source captions the duct table “other than 30°C ground temperature” while the buried-cable table above it reads 20°C, and the duct row carries six columns against the other tables’ eight — reproduced as written, flagged for check.

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