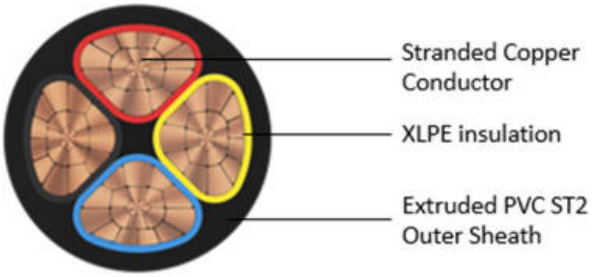
LOW VOLTAGE POWER CABLE · MC-4 UA · UNARMOURED

0.6/1 (1.2) KV · FOUR-CORE COPPER

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

0.6/1 (1.2) kV	90 °C	250 °C	3.5 kV AC
Nominal voltage	Max. operating temperature	Max. 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-4 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 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, Blue, and Black
Bending radius	Fixed installation: 12 × overall diameter
Test voltage	3.5 kV AC

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

NOTE

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

WEIGHT & DIMENSION DATA

Product code	Nominal cross-sectional area n × mm²	Nominal insulation thickness mm	Nominal sheath thickness mm	Overall diameter (approx.) mm	Weight (approx.) kg/km
IC-PW-04-00400-CU-2XL-2XY-1100-IEC60502P1-FRLS	4 × 4	0.70	1.40	14.2	310
IC-PW-04-00600-CU-2XL-2XY-1100-IEC60502P1-FRLS	4 × 6	0.70	1.40	15.6	410
IC-PW-04-01000-CU-2XL-2XY-1100-IEC60502P1-FRLS	4 × 10	0.70	1.50	17.9	590
IC-PW-04-01600-CU-2XL-2XY-1100-IEC60502P1-FRLS	4 × 16	0.70	1.50	19.9	845
IC-PW-04-02500-CU-2XL-2XY-1100-IEC60502P1-FRLS	4 × 25	0.90	1.60	20.5	1130
IC-PW-04-03500-CU-2XL-2XY-1100-IEC60502P1-FRLS	4 × 35	0.90	1.70	23.0	1520
IC-PW-04-05000-CU-2XL-2XY-1100-IEC60502P1-FRLS	4 × 50	1.00	1.80	26.8	2140
IC-PW-04-07000-CU-2XL-2XY-1100-IEC60502P1-FRLS	4 × 70	1.10	1.90	30.9	2950
IC-PW-04-09500-CU-2XL-2XY-1100-IEC60502P1-FRLS	4 × 95	1.10	2.10	34.9	3940
IC-PW-04-12000-CU-2XL-2XY-1100-IEC60502P1-FRLS	4 × 120	1.20	2.20	37.4	4930
IC-PW-04-15000-CU-2XL-2XY-1100-IEC60502P1-FRLS	4 × 150	1.40	2.40	42.0	6160
IC-PW-04-18500-CU-2XL-2XY-1100-IEC60502P1-FRLS	4 × 185	1.60	2.50	46.6	7590
IC-PW-04-24000-CU-2XL-2XY-1100-IEC60502P1-FRLS	4 × 240	1.70	2.70	52.1	9730
IC-PW-04-30000-CU-2XL-2XY-1100-IEC60502P1-FRLS	4 × 300	1.80	2.90	57.6	12140
IC-PW-04-40000-CU-2XL-2XY-1100-IEC60502P1-FRLS‡	4 × 400	2.00	3.20	64.3	15160
IC-PW-04-50000-CU-2XL-2XY-1100-IEC60502P1-FRLS‡	4 × 500	2.20	3.40	73.2	20060
IC-PW-04-63000-CU-2XL-2XY-1100-IEC60502P1-FRLS‡	4 × 630	2.40	3.70	81.6	25200

The above data is approximate & subject to manufacturing tolerance. Codes are derived from the published Indo Cables code structure — the Item Master holds no IEC 60502-1 entries at all, so every row here is flagged for registration. ‡400, 500 and 630 mm² have no four-core copper row in the register under any standard.

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	49	45	45	4.61
6	60	56	57	3.08
10	80	75	77	1.83
16	103	96	98	1.15
25	132	122	131	0.727
35	158	146	162	0.524
50	187	173	197	0.387
70	229	211	249	0.268
95	274	252	307	0.193
120	310	284	352	0.153
150	347	317	402	0.124
185	391	357	464	0.0991
240	451	409	550	0.0754
300	507	456	631	0.0601
400	570	508	728	0.0470
500	640	562	836	0.0366
630	714	616	957	0.0283

90°C
Maximum conductor temperature

30°C
Ambient air temperature

20°C
Ground temperature

750 mm
Depth of laying

1.5 K.m/W
Thermal resistivity of soil

DE-RATING FACTOR

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

Duct table reproduced as written: it lists six ground temperatures only (20°C and 30°C absent) and its caption cites a 30°C base where the rating conditions above state 20°C — flagged for check.

OUR ACCREDITATIONS & APPROVAL

ISO 9001
Cert. 99 100 22646 (TÜV SÜD)

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Bureau of Indian Standards · CM/L 6200267409

RoHS
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