

LOW VOLTAGE POWER CABLE · LV CU IEC 60502-1 · 3.5 CORE UNARMoured

0.6/1 (1.2) KV · 3.5 CORE COPPER

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

0.6/1 (1.2) kV

Nominal voltage

+90 °C max.

Operating temperature

250 °C

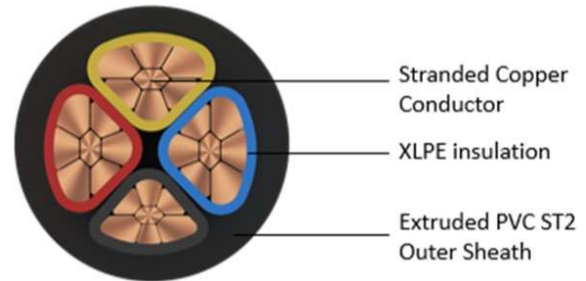
Short-circuit temperature

3.5 kV AC

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-3.5 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 ($U_m=1.2$ 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 x Overall diameter

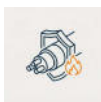
OUTSTANDING FEATURES



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

WEIGHT & DIMENSION DATA

Product code	Nominal cross-sectional area mm ²	Nominal insulation thickness mm	Nominal sheath thickness mm	Overall diameter (approx.) mm	Weight (approx.) kg/km
IC-PW-3H-00400-CU-2XL-2XY-1100-IEC60502P1-FRLS †	4	0.70	1.60	19.2	1030
IC-PW-3H-00600-CU-2XL-2XY-1100-IEC60502P1-FRLS †	6	0.70	1.70	21.4	1330
IC-PW-3H-01000-CU-2XL-2XY-1100-IEC60502P1-FRLS †	10	0.70	1.80	25.0	1890
IC-PW-3H-01600-CU-2XL-2XY-1100-IEC60502P1-FRLS †	16	0.70	1.90	28.7	2590
IC-PW-3H-02500-CU-2XL-2XY-1100-IEC60502P1-FRLS †	25	0.90	2.10	32.3	3490
IC-PW-3H-03500-CU-2XL-2XY-1100-IEC60502P1-FRLS †	35	0.90	2.20	35.9	4440
IC-PW-3H-05000-CU-2XL-2XY-1100-IEC60502P1-FRLS †	50	1.00	2.30	40.1	5360
IC-PW-3H-07000-CU-2XL-2XY-1100-IEC60502P1-FRLS †	70	1.10	2.50	44.6	6690
IC-PW-3H-09500-CU-2XL-2XY-1100-IEC60502P1-FRLS †	95	1.10	2.60	49.8	8550
IC-PW-3H-12000-CU-2XL-2XY-1100-IEC60502P1-FRLS †	120	1.20	2.80	55.0	10640
IC-PW-3H-15000-CU-2XL-2XY-1100-IEC60502P1-FRLS †	150	1.40	3.10	61.4	13940
IC-PW-3H-18500-CU-2XL-2XY-1100-IEC60502P1-FRLS †	185	1.60	3.30	69.9	17480
IC-PW-3H-24000-CU-2XL-2XY-1100-IEC60502P1-FRLS †	240	1.70	3.60	77.9	21930
IC-PW-3H-30000-CU-2XL-2XY-1100-IEC60502P1-FRLS †	300	1.80	1.60 ‡	19.2 ‡	1030 ‡
IC-PW-3H-40000-CU-2XL-2XY-1100-IEC60502P1-FRLS †	400	2.00	1.70 ‡	21.4 ‡	1330 ‡
IC-PW-3H-50000-CU-2XL-2XY-1100-IEC60502P1-FRLS †	500	2.20	1.80 ‡	25.0 ‡	1890 ‡
IC-PW-3H-63000-CU-2XL-2XY-1100-IEC60502P1-FRLS †	630	2.40	1.90 ‡	28.7 ‡	2590 ‡

The above data is approximate & subject to manufacturing tolerance. Codes read 3H = 3.5 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, and no 3.5-core rows below 25 mm², so none could be looked up. Flagged for the Item Master Steward. ‡ On the last four rows the source repeats the sheath thickness, overall diameter and weight of the 4, 6, 10 and 16 mm² rows verbatim — reproduced as written, flagged for check.

ELECTRICAL CHARACTERISTICS

Current rating and maximum DC conductor resistance.

Nominal cross-sectional area mm ²	Buried direct in the ground at 20°C Amp.	In single way ducts at 30°C Amp.	In air at 30°C Amp.	Max. 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	0.047
500	640	562	836	0.0366
630	714	616	957	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**

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).

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.