INDO CABLES
EVERY CONNECTION MATTERS

PRODUCT DATASHEET
LV Power Cable · IEC 60502-1

LV-14
SHEET NO.

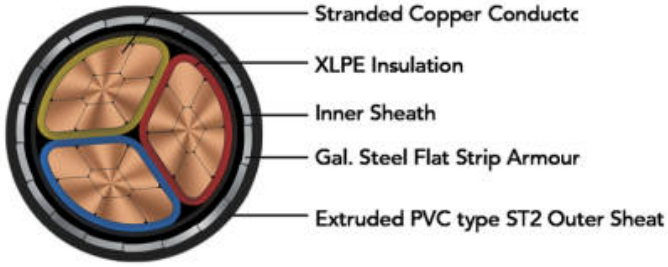
LOW VOLTAGE POWER CABLE · MC-3 SFA · FLAT STRIP ARMOURED

0.6/1 (1.2) KV · THREE-CORE COPPER

XLPE insulated · PVC sheathed · galvanised flat strip armoured · manufactured to IEC 60502-1

0.6/1 kV	**+90** °C	**250** °C
Rated voltage · Um 1.2 kV	Max. operating temperature	Max. short-circuit temperature

CABLE / SIDE 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 SFA, stranded compacted copper conductor, XLPE insulated, and PVC sheathed armoured 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
Inner covering	Extruded or lapped PVC
Armouring	Galvanised flat strip armoured (FSA)
Outer sheath	Extruded polyvinylchloride (ST2) or polyethylene (ST7) or halogen free (ST8) as per IEC 60502-1
Core identification	Red, Yellow and Black
Test voltage	3.5 kV AC
Bending radius	Fixed installation: 12 × 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`

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 thickness of insulation mm	Nominal thickness of inner covering mm	Nominal thickness of sheath mm	Armouring dimension n × mm	Overall diameter mm	Weight (approx.) kg/km
IC-PW-03-02500-CU-2XL-2XFY-1100-IE C60502P1-FRLS†	25	0.90	1.00	1.60	4 × 0.2	19.8	1025
IC-PW-03-03500-CU-2XL-2XFY-1100-IE C60502P1-FRLS†	35	0.90	1.00	1.70	4 × 0.2	21.9	1320
IC-PW-03-05000-CU-2XL-2XFY-1100-IE C60502P1-FRLS†	50	1.00	1.00	1.80	4 × 0.2	25.0	1820
IC-PW-03-07000-CU-2XL-2XFY-1100-IE C60502P1-FRLS†	70	1.10	1.00	1.90	4 × 0.2	28.3	2450
IC-PW-03-09500-CU-2XL-2XFY-1100-IE C60502P1-FRLS†	95	1.10	1.20	2.10	4 × 0.5	32.5	3460
IC-PW-03-12000-CU-2XL-2XFY-1100-IE C60502P1-FRLS†	120	1.20	1.20	2.20	4 × 0.5	35.4	4270
IC-PW-03-15000-CU-2XL-2XFY-1100-IE C60502P1-FRLS†	150	1.40	1.40	2.40	4 × 0.5	39.7	5290
IC-PW-03-18500-CU-2XL-2XFY-1100-IE C60502P1-FRLS†	185	1.60	1.40	2.50	4 × 0.5	43.6	6440
IC-PW-03-24000-CU-2XL-2XFY-1100-IE C60502P1-FRLS†	240	1.70	1.40	2.70	4 × 0.5	48.3	8120
IC-PW-03-30000-CU-2XL-2XFY-1100-IE C60502P1-FRLS†	300	1.80	1.60	2.90	4 × 0.5	53.3	10070
IC-PW-03-40000-CU-2XL-2XFY-1100-IE C60502P1-FRLS†	400	2.00	1.60	3.10	4 × 0.5	58.8	12420
IC-PW-03-50000-CU-2XL-2XFY-1100-IE C60502P1-FRLS†	500	2.20	1.80	3.30	4 × 0.5	66.6	16300
IC-PW-03-63000-CU-2XL-2XFY-1100-IE C60502P1-FRLS†	630	2.40	1.80	3.60	4 × 0.5	74.3	20790

The above data is approximate & subject to manufacturing tolerance. †IEC 60502-1 armoured items are not yet registered in the Indo Cables Item Master — all codes above are derived from the published code structure (3-core · Cu · XLPE · 2XFY flat-strip-armoured designation · 1.1 kV · IEC60502P1 · ST2-FRLS sheath, mirroring the original codes) and are flagged for registration.

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.	Max. DC conductor resistance at 20°C Ω/km
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

90°C
Max. conductor temperature

20°C
Ground temperature (buried direct)

30°C
Air / duct temperature

DE-RATING FACTORS

Rating factor for variation in ambient air temperature, cables in air.

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

Rating factor for variation in ground temperature, cables buried direct in the ground.

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

Rating factor for variation in ground temperature, cables in duct.

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
Bureau of Indian Standards · CM/L 6200267409

RoHS
Compliant

REACH
Compliant

Make in India
Manufactured in India