INDO CABLES
EVERY CONNECTION MATTERS

PRODUCT DATASHEET
MC-2 UA · IEC 60502-1

LV-46
SHEET NO.

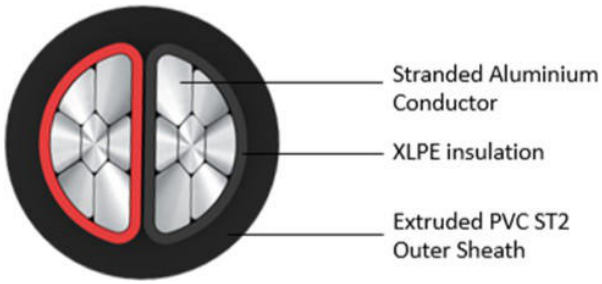
LOW VOLTAGE POWER CABLE · MC-2 UA · TWO-CORE UNARMOURED

0.6/1 (1.2) KV AC · 2-CORE ALUMINIUM

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

0.6/1 (1.2) kV Nominal voltage	**90** °C max. Operation 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 AL IEC 60502-1 0.6/1 KV MC-2 UA, stranded compacted aluminium 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 Aluminium 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 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

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 n x mm²	Nominal insulation thickness mm	Nominal sheath thickness mm	Overall diameter (approx.) mm	Weight (approx.) kg/km
IC-PW-02-00400-AL-2XL-A2XY-1100-IEC60502P1-FRLS†	2 x 4	0.70	1.30	12.6	155
IC-PW-02-00600-AL-2XL-A2XY-1100-IEC60502P1-FRLS†	2 x 6	0.70	1.40	13.8	185
IC-PW-02-01000-AL-2XL-A2XY-1100-IEC60502P1-FRLS	2 x 10	0.70	1.40	15.7	230
IC-PW-02-01600-AL-2XL-A2XY-1100-IEC60502P1-FRLS	2 x 16	0.70	1.50	18.0‡	300
IC-PW-02-02500-AL-2XL-A2XY-1100-IEC60502P1-FRLS	2 x 25	0.90	1.50	15.7‡	280
IC-PW-02-03500-AL-2XL-A2XY-1100-IEC60502P1-FRLS	2 x 35	0.90	1.60	17.5	350
IC-PW-02-05000-AL-2XL-A2XY-1100-IEC60502P1-FRLS	2 x 50	1.00	1.70	20.3	480
IC-PW-02-07000-AL-2XL-A2XY-1100-IEC60502P1-FRLS	2 x 70	1.10	1.80	23.3	640
IC-PW-02-09500-AL-2XL-A2XY-1100-IEC60502P1-FRLS	2 x 95	1.10	1.90	25.9	820
IC-PW-02-12000-AL-2XL-A2XY-1100-IEC60502P1-FRLS	2 x 120	1.20	2.00	27.8	1000
IC-PW-02-15000-AL-2XL-A2XY-1100-IEC60502P1-FRLS	2 x 150	1.40	2.20	31.2	1250
IC-PW-02-18500-AL-2XL-A2XY-1100-IEC60502P1-FRLS	2 x 185	1.60	2.30	34.6	1530
IC-PW-02-24000-AL-2XL-A2XY-1100-IEC60502P1-FRLS	2 x 240	1.70	2.50	38.6	1940
IC-PW-02-30000-AL-2XL-A2XY-1100-IEC60502P1-FRLS	2 x 300	1.80	2.60	42.5	2370
IC-PW-02-40000-AL-2XL-A2XY-1100-IEC60502P1-FRLS	2 x 400	2.00	2.90	47.4	2960
IC-PW-02-50000-AL-2XL-A2XY-1100-IEC60502P1-FRLS	2 x 500	2.20	3.10	53.8	3850
IC-PW-02-63000-AL-2XL-A2XY-1100-IEC60502P1-FRLS	2 x 630	2.40	3.30	59.8	4780

The above data is approximate & subject to manufacturing tolerance. Also available with EPR/HEPR insulation type. †Codes not yet registered in the Indo Cables Item Master — derived from the published code structure and flagged for registration. ‡Source document gives 15.7 mm overall diameter at 2 x 25 mm² against 18.0 mm at 2 x 16 mm² — reproduced as written, flagged for check.

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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	45	36	42	7.41
6	59	46	55	4.61
10	73	57	70	3.08
16	96	74	91	1.91
25	123	95	120	1.2
35	147	113	146	0.868
50	174	134	178	0.641
70	213	164	224	0.443
95	254	196	276	0.32
120	287	222	316	0.253
150	320	248	361	0.206
185	362	281	417	0.164
240	416	324	493	0.125
300	467	364	564	0.1
400	526	412	652	0.0778
500	592	463	751	0.0605
630	661	518	862	0.0469

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

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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

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BIS standard mark

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