INDO CABLES
EVERY CONNECTION MATTERS

PRODUCT DATASHEET
MC-2 SFA · IEC 60502-1

LV-21
SHEET NO.

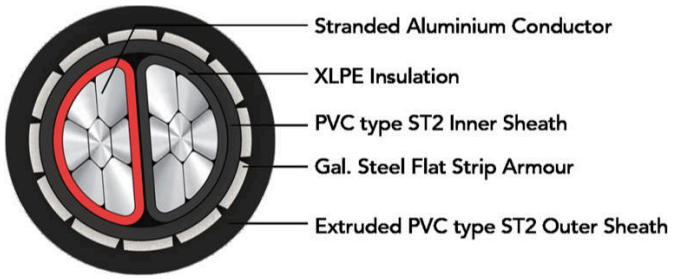
LOW VOLTAGE POWER CABLE · MC-2 SFA · ARMOURED

0.6/1 (1.2) KV · TWO-CORE ALUMINIUM

Circular compacted or stranded aluminium · XLPE insulated · galvanised flat strip armour · PVC sheathed · conforming 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	**12** × OD Bending radius, fixed installation

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 SFA, stranded compacted aluminium 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 Aluminium 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 and Black
Bending radius	Fixed Installation: 12 x Overall diameter
Test voltage	3.5kV 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

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

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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 mm	Overall diameter mm	Weight (approx.) kg/km
IC-PW-02-02500-AL-2XL-A2XFY-1100-IEC60502P1-FRLS †	25	0.90	1.00	1.60	4 x 0.2	18.3	500
IC-PW-02-03500-AL-2XL-A2XFY-1100-IEC60502P1-FRLS †	35	0.90	1.00	1.70	4 x 0.2	20.1	600
IC-PW-02-05000-AL-2XL-A2XFY-1100-IEC60502P1-FRLS †	50	1.00	1.00	1.80	4 x 0.2	22.9	700
IC-PW-02-07000-AL-2XL-A2XFY-1100-IEC60502P1-FRLS †	70	1.10	1.00	1.90	4 x 0.2	25.9	900
IC-PW-02-09500-AL-2XL-A2XFY-1100-IEC60502P1-FRLS †	95	1.10	1.20	2.00	4 x 0.5	28.9	1200
IC-PW-02-12000-AL-2XL-A2XFY-1100-IEC60502P1-FRLS †	120	1.20	1.20	2.20	4 x 0.5	31.6	1500
IC-PW-02-15000-AL-2XL-A2XFY-1100-IEC60502P1-FRLS †	150	1.40	1.20	2.30	4 x 0.5	34.8	1800
IC-PW-02-18500-AL-2XL-A2XFY-1100-IEC60502P1-FRLS †	185	1.60	1.40	2.40	4 x 0.5	38.6	2200
IC-PW-02-24000-AL-2XL-A2XFY-1100-IEC60502P1-FRLS †	240	1.70	1.40	2.60	4 x 0.5	42.6	2700
IC-PW-02-30000-AL-2XL-A2XFY-1100-IEC60502P1-FRLS †	300	1.80	1.60	2.80	4 x 0.5	47.1	3300
IC-PW-02-40000-AL-2XL-A2XFY-1100-IEC60502P1-FRLS †	400	2.00	1.60	3.00	4 x 0.5	51.8	4000
IC-PW-02-50000-AL-2XL-A2XFY-1100-IEC60502P1-FRLS †	500	2.20	1.60	3.20	4 x 0.5	58.2	5000
IC-PW-02-63000-AL-2XL-A2XFY-1100-IEC60502P1-FRLS †	630	2.40	1.80	3.50	4 x 0.5	64.8	6200

The above data is approximate & subject to manufacturing tolerance. † Codes derived from the Indo Cables code structure — the IEC 60502-1 line is not yet present in the Item Master register. Codes shown are the FRLS sheath variant; the ST2 variant carries the same code with no suffix and the FR variant the –FR suffix.

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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
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

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**

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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

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

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