LOW VOLTAGE POWER CABLE · INDOCABLES LV AL MC-3.5 SFA · 3.5 CORE FLAT STRIP ARMOURED

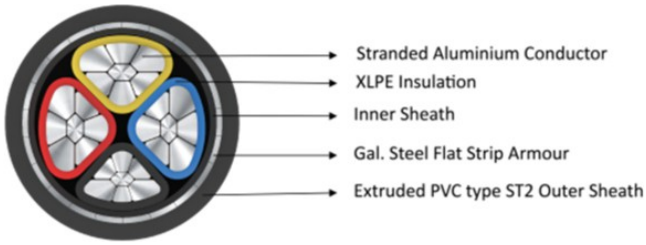
0.6/1 (1.2) KV AC · 3.5 CORE ALUMINIUM

Stranded compacted aluminium conductor · XLPE insulated · PVC inner covering · galvanized flat strip armour (FSA) · 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	**25–630** mm² Size range, 3.5 core

CROSS SECTION · LAYER CALLOUTS

CABLE / SIDE VIEW · INDOCABLES sheath print



Images not to scale. Follow table for dimensions.

APPLICATION

INDOCABLES LV AL IEC 60502-1 0.6/1 KV MC-3.5 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	Galvanized 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, 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

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

NOTES

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

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 (approx.) mm	Weight (approx.) kg/km
IC-PW-3H-02500-AL-2XL-A2XFY-1100-IEC60502P1-FRLS*	25	0.90	1.00	1.70	4 x 0.20 †	21.8	700
IC-PW-3H-03500-AL-2XL-A2XFY-1100-IEC60502P1-FRLS*	35	0.90	1.00	1.70	4 x 0.20 †	23.8	800
IC-PW-3H-05000-AL-2XL-A2XFY-1100-IEC60502P1-FRLS*	50	1.00	1.00	1.90	4 x 0.20 †	27.6	1050
IC-PW-3H-07000-AL-2XL-A2XFY-1100-IEC60502P1-FRLS*	70	1.10	1.20	2.00	4 x 0.20 †	31.7	1400
IC-PW-3H-09500-AL-2XL-A2XFY-1100-IEC60502P1-FRLS*	95	1.10	1.20	2.20	4 x 0.50	35.9	1950
IC-PW-3H-12000-AL-2XL-A2XFY-1100-IEC60502P1-FRLS*	120	1.20	1.20	2.30	4 x 0.50	39.5	2370
IC-PW-3H-15000-AL-2XL-A2XFY-1100-IEC60502P1-FRLS*	150	1.40	1.40	2.40	4 x 0.50	44.1	2850
IC-PW-3H-18500-AL-2XL-A2XFY-1100-IEC60502P1-FRLS*	185	1.60	1.40	2.60	4 x 0.50	48.6	3430
IC-PW-3H-24000-AL-2XL-A2XFY-1100-IEC60502P1-FRLS*	240	1.70	1.60	2.80	4 x 0.50	54.4	4270
IC-PW-3H-30000-AL-2XL-A2XFY-1100-IEC60502P1-FRLS*	300	1.80	1.60	3.00	4 x 0.50	59.6	5140
IC-PW-3H-40000-AL-2XL-A2XFY-1100-IEC60502P1-FRLS*	400	2.00	1.60	3.20	4 x 0.50	65.8	6410
IC-PW-3H-50000-AL-2XL-A2XFY-1100-IEC60502P1-FRLS*	500	2.20	1.80	3.50	4 x 0.50	74.9	7990
IC-PW-3H-63000-AL-2XL-A2XFY-1100-IEC60502P1-FRLS*	630	2.40	1.80	3.80	4 x 0.80	83.5	10330

The above data is approximate & subject to manufacturing tolerance. Codes read 3H = 3.5 core · AL · 2XL XLPE · A2XFY steel flat strip armoured, PVC sheathed · IEC 60502-1 · FRLS.

* The Item Master holds no IEC 60502-1 rows, so all thirteen codes are derived from the Indo Cables code structure and are not yet registered — the steward must add them and move them to ACTIVE before quoting. The register also carries no 0.6/1 kV voltage token, so position 8 uses **1100** (1.1 kV grade). † The source gives a 0.20 mm strip thickness for 25–70 mm², below the 0.5 mm minimum elsewhere in the same column — reproduced as written, flagged for check.

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ELECTRICAL CHARACTERISTICS

Current ratting 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.	Maximum DC conductor resistance at 20°C Ω/km
25	103	95	102	1.2
35	123	113	125	0.868
50	145	134	152	0.641
70	177	164	193	0.443
95	213	196	238	0.32
120	241	222	274	0.253
150	269	248	312	0.206
185	305	281	362	0.164
240	353	324	431	0.125
300	399	364	497	0.1
400	454	412	579	0.0778
500	516	463	673	0.0605
630	585	518	783	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 °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

The air table omits the 30°C base column and the duct table omits 10°C, 20°C and 30°C — both reproduced with exactly the columns the source gives.

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