LOW VOLTAGE POWER CABLE · 3.5-CORE · SWA ARMOURED

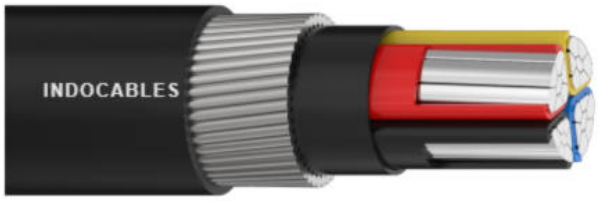
0.6/1 (1.2) KV · 3.5-CORE ALUMINIUM

XLPE insulated · galvanised steel wire armoured (SWA) · PVC sheathed · manufactured to IEC 60502-1

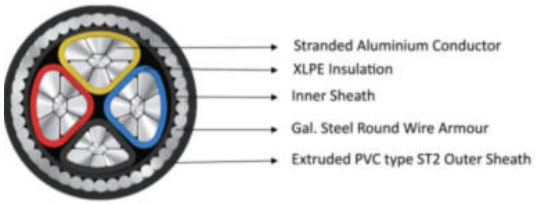
0.6/1 (1.2) kV
Rated voltage

+90 °C
Max. operating temperature

250 °C
Max. short-circuit temperature



CABLE / SIDE VIEW · INDOCABLE sheath print



CROSS-SECTION · construction callouts

Images not to scale. Follow table for dimensions.

APPLICATION

INDOCABLE LV AL IEC 60502-1 0.6/1 KV MC-3.5 SWA, 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 steel wire armoured (SWA)
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 × overall diameter
Test voltage	3.5 kV 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

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

WEIGHT & DIMENSION DATA

Product code	Nominal cross-sectional area mm²	Nominal thickness · mm			Nominal diameter (approx.) · mm		Weight (approx.) kg/km
		Insulation	Inner covering	Sheath	Armouring wire	Overall	
IC-PW-3H-02500-AL-2XL-A2XWY-0660-IEC60502P1-FRLS*	25	0.90	1.00	1.80	1.60	23.0	1150
IC-PW-3H-03500-AL-2XL-A2XWY-0660-IEC60502P1-FRLS*	35	0.90	1.00	1.80	1.60	25.0	1330
IC-PW-3H-05000-AL-2XL-A2XWY-0660-IEC60502P1-FRLS*	50	1.00	1.00	2.00	1.60	30.6	1680
IC-PW-3H-07000-AL-2XL-A2XWY-0660-IEC60502P1-FRLS*	70	1.10	1.20	2.10	2.00	35.5	2330
IC-PW-3H-09500-AL-2XL-A2XWY-0660-IEC60502P1-FRLS*	95	1.10	1.20	2.30	2.00	39.1	2810
IC-PW-3H-12000-AL-2XL-A2XWY-0660-IEC60502P1-FRLS*	120	1.20	1.20	2.40	2.50	43.7	3660
IC-PW-3H-15000-AL-2XL-A2XWY-0660-IEC60502P1-FRLS*	150	1.40	1.40	2.60	2.50	48.5	4340
IC-PW-3H-18500-AL-2XL-A2XWY-0660-IEC60502P1-FRLS*	185	1.60	1.40	2.70	2.50	52.8	5050
IC-PW-3H-24000-AL-2XL-A2XWY-0660-IEC60502P1-FRLS*	240	1.70	1.60	2.90	2.50	58.5	6110
IC-PW-3H-30000-AL-2XL-A2XWY-0660-IEC60502P1-FRLS*	300	1.80	1.60	3.10	2.50	63.8	7150
IC-PW-3H-40000-AL-2XL-A2XWY-0660-IEC60502P1-FRLS*	400	2.00	1.60	3.40	3.15	71.5	9440
IC-PW-3H-50000-AL-2XL-A2XWY-0660-IEC60502P1-FRLS*	500	2.20	1.80	3.70	3.15	80.6	11420
IC-PW-3H-63000-AL-2XL-A2XWY-0660-IEC60502P1-FRLS*	630	2.40	1.80	3.90	3.15	88.4	13570

The above data is approximate & subject to manufacturing tolerance. *All codes derived from the Indo Cables code structure — the IEC 60502-1 family is not yet in the Item Master. See run report.

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ELECTRICAL CHARACTERISTICS

Current rating and max. DC conductor resistance at 20°C.

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	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	0.101
400	454	412	579	0.0778
500	516	463	673	0.0605
630	585	518	783	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

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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