INDO CABLES
EVERY CONNECTION MATTERS

PRODUCT DATASHEET
LV Power Cable · IEC 60502-1

LV-04
SHEET NO.

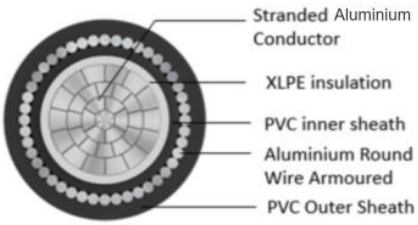
LOW VOLTAGE POWER CABLE · SC · AWA

0.6/1 (1.2) KV · 1-CORE ALUMINIUM

XLPE insulated · aluminium round wire armoured (AWA) · PVC sheathed · manufactured to IEC 60502-1

0.6/1 kV	**+90** °C	**250** °C	**3.5** kV AC
Rated voltage AC (Um = 1.2 kV)	Max. operating temperature	Max. short-circuit temperature	Test voltage

CABLE / SIDE VIEW · INDOCABLES 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 SC AWA, 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	Cross-linked polyethylene (XLPE) as per IEC 60502-1
Inner covering	Extruded or lapped PVC
Armouring	Aluminium wire armoured (AWA)
Outer sheath	Extruded polyvinylchloride (ST2) or polyethylene (ST7) or halogen-free (ST8) as per IEC 60502-1
Core identification	Red / Yellow / Blue / Black / Natural
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

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WEIGHT & DIMENSION DATA

Product code	Nominal cross-sectional area mm²	Nominal thickness · mm			Nominal diameter (approx.) · mm		Weight (approx.) kg/km
		Insulation	Inner sheath / covering	Outer sheath*	Armour wire	Overall	
IC-PW-01-00400-AL-2XL-A2XWaY-0660-IEC60502P1-FRLS	4	0.70	1.00	1.40	0.80	10.4	135
IC-PW-01-00600-AL-2XL-A2XWaY-0660-IEC60502P1-FRLS	6	0.70	1.00	1.40	0.80	10.9	150
IC-PW-01-01000-AL-2XL-A2XWaY-0660-IEC60502P1-FRLS	10	0.70	1.00	1.40	0.80	11.9	175
IC-PW-01-01600-AL-2XL-A2XWaY-0660-IEC60502P1-FRLS	16	0.70	1.00	1.40	0.80	12.4	205
IC-PW-01-02500-AL-2XL-A2XWaY-0660-IEC60502P1-FRLS	25	0.90	1.00	1.40	0.80	14.0	275
IC-PW-01-03500-AL-2XL-A2XWaY-0660-IEC60502P1-FRLS	35	0.90	1.00	1.50	1.25	16.1	350
IC-PW-01-05000-AL-2XL-A2XWaY-0660-IEC60502P1-FRLS	50	1.00	1.00	1.50	1.25	17.7	425
IC-PW-01-07000-AL-2XL-A2XWaY-0660-IEC60502P1-FRLS	70	1.10	1.00	1.60	1.25	19.6	550
IC-PW-01-09500-AL-2XL-A2XWaY-0660-IEC60502P1-FRLS	95	1.10	1.00	1.60	1.60	21.8	700
IC-PW-01-12000-AL-2XL-A2XWaY-0660-IEC60502P1-FRLS	120	1.20	1.00	1.70	1.60	23.7	825
IC-PW-01-15000-AL-2XL-A2XWaY-0660-IEC60502P1-FRLS	150	1.40	1.00	1.80	1.60	25.7	975
IC-PW-01-18500-AL-2XL-A2XWaY-0660-IEC60502P1-FRLS	185	1.60	1.00	1.80	1.60	27.7	1150
IC-PW-01-24000-AL-2XL-A2XWaY-0660-IEC60502P1-FRLS	240	1.70	1.00	1.90	1.60	30.3	1375
IC-PW-01-30000-AL-2XL-A2XWaY-0660-IEC60502P1-FRLS	300	1.80	1.00	2.00	2.00	33.6	1700
IC-PW-01-40000-AL-2XL-A2XWaY-0660-IEC60502P1-FRLS	400	2.00	1.20	2.20	2.00	37.2	2100
IC-PW-01-50000-AL-2XL-A2XWaY-0660-IEC60502P1-FRLS	500	2.20	1.20	2.30	2.00	41.3	2625
IC-PW-01-63000-AL-2XL-A2XWaY-0660-IEC60502P1-FRLS	630	2.40	1.20	2.40	2.50	46.1	3275
IC-PW-01-80000-AL-2XL-A2XWaY-0660-IEC60502P1-FRLS	800	2.60	1.40	2.60	2.50	50.9	4025
IC-PW-01-100000-AL-2XL-A2XWaY-0660-IEC60502P1-FRLS	1000	2.80	1.40	2.70	2.50	55.4	4825

The above data is approximate & subject to manufacturing tolerance. *Column label reconstructed — see run report. Codes derived from the Indo Cables code structure; the IEC 60502-1 single-core AL family is not yet in the Item Master — see run report.

ELECTRICAL CHARACTERISTICS

Current rating and maximum DC conductor resistance.

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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
	Flat touching	Trefoil	Flat touching	Trefoil	Flat touching	Trefoil	
4	46	40	36	34	42	36	7.41
6	59	51	47	43	55	47	4.61
10	75	64	58	54	70	61	3.08
16	96	82	75	69	92	79	1.91
25	124	106	96	89	123	108	1.21
35	148	125	115	106	151	131	0.868
50	174	148	135	124	182	160	0.641
70	214	181	165	151	230	204	0.443
95	262	218	199	181	290	259	0.321
120	298	248	226	206	339	304	0.253
150	333	276	252	229	385	345	0.206
185	377	313	285	258	447	403	0.164
240	436	362	329	298	528	477	0.125
300	490	406	369	333	606	550	0.101
400	559	463	421	378	712	648	0.0778
500	635	524	476	426	826	754	0.0605
630	716	590	536	477	955	872	0.0469
800	799	657	596	528	1091	998	0.0367
1000	877	718	652	575	1229	1124	0.029

90°C
Max. conductor temperature

30°C
Ambient air temperature

20°C
Ground temperature

750 mm
Depth of laying

1.5 K·m/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	0.80	0.76

Current rating de-rating factors for other than 30°C ground temperature, 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

RoHS
Compliant

REACH
Compliant

Make in India
Manufactured in India

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