INDO CABLES
EVERY CONNECTION MATTERS

PRODUCT DATASHEET
LV Power Cable · IEC 60502-1

LV-05
SHEET NO.

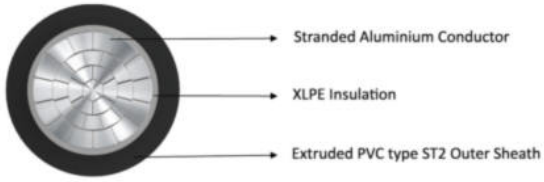
LOW VOLTAGE POWER CABLE · SC · UA

0.6/1 (1.2) KV · 1-CORE ALUMINIUM

XLPE insulated · single core unarmoured (UA) · PVC sheathed · manufactured to IEC 60502-1

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

INDOCABLE A2XY SC, stranded compacted aluminium conductor, XLPE insulated, and PVC sheathed confirming to IS 7098-1 is suitable for AC single phase or three phase (earthed or unearthed) systems with rated voltage up to and including 1100 V. This cable is also suitable for DC systems with rated voltage up to and including 1500 V to earth.

CONSTRUCTION

Conductor	Circular compacted or stranded aluminium conductor as per IEC 60228, class 2
Insulation	Cross-linked polyethylene (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 / Yellow / Blue / Black / Grey / Natural
Bending radius	Fixed installation: 12 × overall diameter

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

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		Overall diameter (approx.) mm	Weight (approx.) kg/km
		Insulation	Outer sheath		
IC-PW-01-00400-AL-2XL-A2XY-0660-IEC60502P1-FRLS	4	0.70	1.40	7.0	60
IC-PW-01-00600-AL-2XL-A2XY-0660-IEC60502P1-FRLS	6	0.70	1.40	7.3	70
IC-PW-01-01000-AL-2XL-A2XY-0660-IEC60502P1-FRLS	10	0.70	1.40	8.3	85
IC-PW-01-01600-AL-2XL-A2XY-0660-IEC60502P1-FRLS	16	0.70	1.40	9.3	106
IC-PW-01-02500-AL-2XL-A2XY-0660-IEC60502P1-FRLS	25	0.90	1.40	10.4	140
IC-PW-01-03500-AL-2XL-A2XY-0660-IEC60502P1-FRLS	35	0.90	1.40	11.4	180
IC-PW-01-05000-AL-2XL-A2XY-0660-IEC60502P1-FRLS	50	1.00	1.40	13.0	225
IC-PW-01-07000-AL-2XL-A2XY-0660-IEC60502P1-FRLS	70	1.10	1.40	14.7	300
IC-PW-01-09500-AL-2XL-A2XY-0660-IEC60502P1-FRLS	95	1.10	1.50	16.4	410
IC-PW-01-12000-AL-2XL-A2XY-0660-IEC60502P1-FRLS	120	1.20	1.50	18.1	500
IC-PW-01-15000-AL-2XL-A2XY-0660-IEC60502P1-FRLS	150	1.40	1.60	20.1	600
IC-PW-01-18500-AL-2XL-A2XY-0660-IEC60502P1-FRLS	185	1.60	1.60	22.1	750
IC-PW-01-24000-AL-2XL-A2XY-0660-IEC60502P1-FRLS	240	1.70	1.70	24.7	950
IC-PW-01-30000-AL-2XL-A2XY-0660-IEC60502P1-FRLS	300	1.80	1.80	27.2	1170
IC-PW-01-40000-AL-2XL-A2XY-0660-IEC60502P1-FRLS	400	2.00	1.90	30.2	1450
IC-PW-01-50000-AL-2XL-A2XY-0660-IEC60502P1-FRLS	500	2.20	2.00	34.3	1880
IC-PW-01-63000-AL-2XL-A2XY-0660-IEC60502P1-FRLS	630	2.40	2.20	38.3	2360
IC-PW-01-80000-AL-2XL-A2XY-0660-IEC60502P1-FRLS	800	2.60	2.30	42.5	2940
IC-PW-01-100000-AL-2XL-A2XY-0660-IEC60502P1-FRLS	1000	2.80	2.40	47.0	3620

The above data is approximate & subject to manufacturing tolerance. 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	1.201
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	0.32
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	0.0468
800	799	657	596	528	1091	998	0.0367
1000	877	718	652	575	1229	1124	0.0291

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	0.8	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

RoHS
Compliant

REACH
Compliant

Make in India
Manufactured in India

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