INDO CABLES
EVERY CONNECTION MATTERS

PRODUCT DATASHEET
LV Power Cable · IS 7098-1

LV-06
SHEET NO.

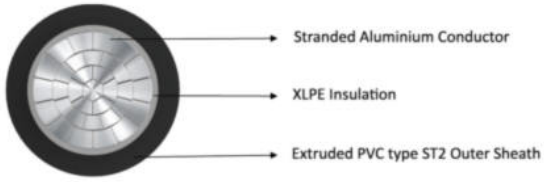
LOW VOLTAGE POWER CABLE · SC · A2XY

650/1100 V · 1-CORE ALUMINIUM

XLPE insulated · unarmoured (A2XY) · PVC sheathed · manufactured to IS 7098 Part 1

650/1100 V	+90 °C	250 °C
Rated voltage	Max. operating temperature	Max. short-circuit temperature

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	Stranded / solid compacted aluminium conductor as per IS 8130, class 1 or class 2
Insulation	Cross-linked polyethylene (XLPE) to IS 7098-1
Outer sheath	Sheathed with PVC Type ST2 / FRLS / FR / LSZH
Core identification	Red / Black / Yellow / Blue / 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

IS 8130:2013

IS 5831:1984

IS 7098-1:1988

COMPLIANCE

Conductor resistance	IS 8130:2013
Insulation resistance	IS 7098-1:1988
Flammability test	IEC 60332-1-2:2015

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WEIGHT & DIMENSION DATA

Product code	Conductor size n × mm²	Class of conductor	Nominal insulation thickness mm	Nominal outer sheath thickness mm	Overall diameter mm	Weight (approx.) kg/km
IC-PW-01-00400-AL-2XL-A2XY-1100-IS7098P1-FRLS*	1 × 4	Class 1	0.7	1.8	7.5	60
IC-PW-01-00600-AL-2XL-A2XY-1100-IS7098P1-FRLS*	1 × 6	Class 1	0.7	1.8	8	70
IC-PW-01-01000-AL-2XL-A2XY-1100-IS7098P1-FRLS	1 × 10	Class 1	0.7	1.8	9	80
IC-PW-01-00400-AL-2XL-A2XY-1100-IS7098P1-FRLS*	1 × 4	Class 2	0.7	1.8	8	65
IC-PW-01-00600-AL-2XL-A2XY-1100-IS7098P1-FRLS*	1 × 6	Class 2	0.7	1.8	8.5	75
IC-PW-01-01000-AL-2XL-A2XY-1100-IS7098P1-FRLS	1 × 10	Class 2	0.7	1.8	9.5	90
IC-PW-01-01600-AL-2XL-A2XY-1100-IS7098P1-FRLS	1 × 16	Class 2	0.7	1.8	10	115
IC-PW-01-02500-AL-2XL-A2XY-1100-IS7098P1-FRLS	1 × 25	Class 2	0.9	1.8	12	155
IC-PW-01-03500-AL-2XL-A2XY-1100-IS7098P1-FRLS	1 × 35	Class 2	0.9	1.8	13	180
IC-PW-01-05000-AL-2XL-A2XY-1100-IS7098P1-FRLS	1 × 50	Class 2	1	1.8	14	240
IC-PW-01-07000-AL-2XL-A2XY-1100-IS7098P1-FRLS	1 × 70	Class 2	1.1	1.8	15.5	310
IC-PW-01-09500-AL-2XL-A2XY-1100-IS7098P1-FRLS	1 × 95	Class 2	1.1	1.8	17.5	385
IC-PW-01-12000-AL-2XL-A2XY-1100-IS7098P1-FRLS	1 × 120	Class 2	1.2	1.8	19.5	470
IC-PW-01-15000-AL-2XL-A2XY-1100-IS7098P1-FRLS	1 × 150	Class 2	1.4	2	21.5	600
IC-PW-01-18500-AL-2XL-A2XY-1100-IS7098P1-FRLS	1 × 185	Class 2	1.6	2	23.5	710
IC-PW-01-24000-AL-2XL-A2XY-1100-IS7098P1-FRLS	1 × 240	Class 2	1.7	2	26	900
IC-PW-01-30000-AL-2XL-A2XY-1100-IS7098P1-FRLS	1 × 300	Class 2	1.8	2	28.5	1158
IC-PW-01-40000-AL-2XL-A2XY-1100-IS7098P1-FRLS	1 × 400	Class 2	2	2.2	31.5	1385
IC-PW-01-50000-AL-2XL-A2XY-1100-IS7098P1-FRLS	1 × 500	Class 2	2.2	2.2	35.5	1650
IC-PW-01-63000-AL-2XL-A2XY-1100-IS7098P1-FRLS	1 × 630	Class 2	2.4	2.2	39.5	2100
IC-PW-01-80000-AL-2XL-A2XY-1100-IS7098P1-FRLS	1 × 800	Class 2	2.6	2.4	44.5	2730
IC-PW-01-100000-AL-2XL-A2XY-1100-IS7098P1-FRLS	1 × 1000	Class 2	2.8	2.6	48.5	3350

The above data is approximate & subject to manufacturing tolerance. *4 & 6 mm² codes derived from the code structure — not yet in the Item Master. Conductor class (1/2) is not carried by the code — see run report.

ELECTRICAL CHARACTERISTICS

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Current carrying capacity and max. DC conductor resistance at 20°C.

Nominal cross-sectional area mm²	Buried direct in the ground · Amp.		In single-way ducts · Amp.		In air · Amp.		Max. DC conductor resistance at 20°C Ω/km
	2 single-core cables	3 single-core cables	2 single-core cables	3 single-core cables	2 single-core cables	3 single-core cables	
4	43	37	36	34	38	33	7.41
6	55	47	47	43	50	43	4.61
10	69	59	58	54	64	55	3.08
16	89	76	75	69	84	72	1.92
25	115	98	96	89	112	98	1.201
35	137	116	115	106	137	119	0.868
50	161	137	135	124	165	145	0.641
70	198	168	165	151	209	185	0.443
95	243	202	199	181	264	235	0.321
120	276	230	226	206	308	276	0.253
150	308	256	252	229	350	314	0.206
185	349	290	285	258	406	366	0.164
240	404	335	329	298	480	434	0.125
300	454	376	369	333	551	500	0.101
400	518	429	421	378	647	589	0.0778
500	588	485	476	426	751	685	0.0605
630	663	546	536	477	868	793	0.0469
800	740	608	596	528	992	907	0.0368
1000	812	665	652	575	1117	1022	0.0291

90°C
Max. conductor temperature

40°C
Air ambient temperature

30°C
Ground ambient temperature

IS 3961 (Part 6):2016
Basis of the above table

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DE-RATING FACTORS

Rating factor for variation in ambient air temperature for cable in free air. Maximum conductor temperature 90°C.

Ambient air temperature °C	25	30	35	40	45	50	55	60
De-rating factor	1.14	1.10	1.05	1.00	0.95	0.89	0.84	0.77

Rating factor for variation in ground temperature for direct buried cables. Maximum conductor temperature 90°C.

Ground temperature °C	15	20	25	30	35	40	45	50
De-rating factor	1.12	1.08	1.04	1.00	0.96	0.91	0.87	0.82

Rating factor for variation in ground temperature for cable in duct. Maximum conductor temperature 90°C.

Ground temperature °C	15	20	25	30	35	40	45	50
De-rating factor	1.12	1.08	1.04	1.00	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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