INDO CABLES
EVERY CONNECTION MATTERS

PRODUCT DATASHEET
LV Power Cable · IS 7098-P1

LV-13
SHEET NO.

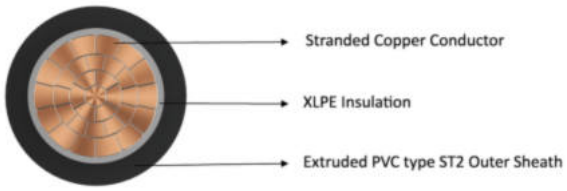
LOW VOLTAGE POWER CABLE · 2XY SINGLE CORE · UNARMOURED

650/1100 V · SINGLE-CORE COPPER

XLPE insulated · PVC sheathed · unarmoured · 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 2XY SC, stranded compacted copper 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 plain compacted copper conductor as per IS 8130, class 1 or class 2
Insulation	Cross-linked polyethylene (XLPE) to IS 7098-1
Outer sheath	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	Nominal cross-sectional area n × mm²	Class of conductor	Nominal thickness of insulation mm	Nominal thickness of outer sheath mm	Overall diameter mm	Weight (approx.) kg/km
IC-PW-01-00400-CU-2XL-2XY-1100-IS7098 P1†	1 × 4	Class 1	0.7	1.8	7.5	85.5
IC-PW-01-00600-CU-2XL-2XY-1100-IS7098 P1†	1 × 6	Class 1	0.7	1.8	8	109
IC-PW-01-00400-CU-2XL-2XY-1100-IS7098 P1†	1 × 4	Class 2	0.7	1.8	8	88
IC-PW-01-00600-CU-2XL-2XY-1100-IS7098 P1†	1 × 6	Class 2	0.7	1.8	8.5	114
IC-PW-01-01000-CU-2XL-2XY-1100-IS7098 P1	1 × 10	Class 2	0.7	1.8	9.5	152
IC-PW-01-01600-CU-2XL-2XY-1100-IS7098 P1	1 × 16	Class 2	0.7	1.8	10	209
IC-PW-01-02500-CU-2XL-2XY-1100-IS7098 P1	1 × 25	Class 2	0.9	1.8	12	309
IC-PW-01-03500-CU-2XL-2XY-1100-IS7098 P1	1 × 35	Class 2	0.9	1.8	13	399
IC-PW-01-05000-CU-2XL-2XY-1100-IS7098 P1	1 × 50	Class 2	1	1.8	14	513
IC-PW-01-07000-CU-2XL-2XY-1100-IS7098 P1	1 × 70	Class 2	1.1	1.8	16	712
IC-PW-01-09500-CU-2XL-2XY-1100-IS7098 P1	1 × 95	Class 2	1.1	1.8	17.5	940
IC-PW-01-12000-CU-2XL-2XY-1100-IS7098 P1	1 × 120	Class 2	1.2	1.8	19	1168
IC-PW-01-15000-CU-2XL-2XY-1100-IS7098 P1	1 × 150	Class 2	1.4	2	21.5	1444
IC-PW-01-18500-CU-2XL-2XY-1100-IS7098 P1	1 × 185	Class 2	1.6	2	23.5	1786
IC-PW-01-24000-CU-2XL-2XY-1100-IS7098 P1	1 × 240	Class 2	1.7	2	26	2299
IC-PW-01-30000-CU-2XL-2XY-1100-IS7098 P1	1 × 300	Class 2	1.8	2	28.5	2840.5
IC-PW-01-40000-CU-2XL-2XY-1100-IS7098 P1	1 × 400	Class 2	2	2.2	33	3629
IC-PW-01-50000-CU-2XL-2XY-1100-IS7098 P1	1 × 500	Class 2	2.2	2.2	36	4598
IC-PW-01-63000-CU-2XL-2XY-1100-IS7098 P1	1 × 630	Class 2	2.4	2.2	40	5880
IC-PW-01-80000-CU-2XL-2XY-1100-IS7098 P1	1 × 800	Class 2	2.6	2.4	43.7	7486
IC-PW-01-100000-CU-2XL-2XY-1100-IS7098P1	1 × 1000	Class 2	2.8	2.6	49.2	9358

The above data is approximate & subject to manufacturing tolerance. All codes looked up in the Indo Cables Item Master (2XY unarmoured, Cu, IS 7098-P1). †The Item Master carries one code per size — conductor class (class 1 vs class 2) is not encoded, so the 4 mm² and 6 mm² class 1/class 2 rows share a code. Sheath variant (FRLS/FR/LSZH) is likewise not encoded in the registered codes.

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ELECTRICAL CHARACTERISTICS

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

Nominal cross-sectional area mm²	Buried direct in the ground		In single-way ducts		In air		Max. DC conductor resistance at 20°C Ω/km
	2 single-core cables Amp.	3 single-core cable Amp.	2 single-core cables Amp.	3 single-core cable Amp.	2 single-core cables Amp.	3 single-core cable Amp.	
1.5	32	28	27	26	28	24	12.1
2.5	42	36	36	33	37	31	7.41
4	54	47	46	43	48	41	4.61
6	67	58	57	53	61	52	3.08
10	90	77	76	70	83	71	1.83
16	115	98	97	89	108	94	1.15
25	148	126	124	114	144	126	0.727
35	177	150	148	136	176	154	0.524
50	208	177	174	160	212	187	0.387
70	255	216	213	195	269	238	0.268
95	312	260	256	233	340	303	0.193
120	355	295	291	264	396	354	0.153
150	396	329	324	294	450	403	0.124
185	447	371	365	330	519	468	0.0991
240	515	427	420	379	613	553	0.0754
300	576	477	469	422	700	634	0.0601
400	651	537	528	473	813	737	0.047
500	727	598	589	525	930	844	0.0366
630	806	661	651	578	1056	961	0.0283
800	877	721	707	626	1179	1077	0.0221
1000	935	772	751	668	1288	1188	0.0176

90°C
Max. conductor temperature

40°C
Air ambient temperature

30°C
Ground ambient temperature

IS 3961 (Part 6):2016
Rating table reference

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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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