INDO CABLES
EVERY CONNECTION MATTERS

PRODUCT DATASHEET
2XY MC-4 · IS 7098-P1

LV-39
SHEET NO.

LOW VOLTAGE POWER CABLE · INDOCABLES 2XY MC-4 · 4 CORE UNARMOURED

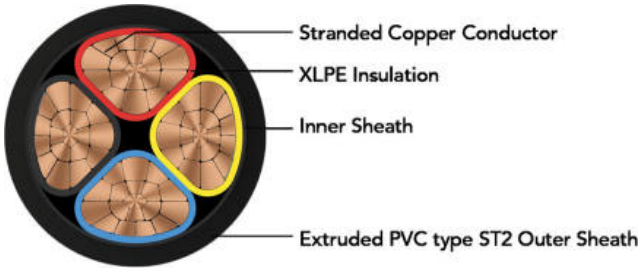
650/1100 V AC · 4 CORE COPPER

Stranded compacted copper conductor · XLPE insulated · PVC inner sheath · PVC sheathed to IS 7098-1

650/1100 V	90 °C max.	250 °C	1500 V DC	4–300 mm²
Voltage rating	Operation temperature	Short circuit temperature	DC systems, to earth	Size range, 4 core

CROSS SECTION · LAYER CALLOUTS

CABLE / SIDE VIEW · INDOCABLES sheath print



Images not to scale. Follow table for dimensions

APPLICATION

INDOCABLES 2XY MC-4, 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 plain compacted/non-compacted copper conductor as per IS 8130, class 1 & 2
Insulation	Insulated with Cross Linked Polyethylene (XLPE) to IS 7098-1
Inner sheath	Extruded inner sheath with PVC Type ST2/FRLS/FR/LSZH
Outer sheath	Sheathed with Extruded PVC Type ST2/FRLS/FR/LSZH
Core identification	Red, Yellow, Blue & Black
Bending radius	Fixed installation 12 x 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

OUR ACCREDITATIONS & APPROVAL

ISI
Bureau of Indian Standards · CM/L 6200267409

ISO 9001
Cert. 99 100 22646 (TÜV SÜD)

RoHS
Compliant

REACH
Compliant

Make in India
Manufactured in India

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WEIGHT & DIMENSION DATA

Product code	Nominal cross sectional area n x mm²	Class of conductor	Nominal Thickness of Insulation mm	Nominal thickness of outer sheath mm	Overall Diameter mm	Weight (Approx.) kg/km
IC-PW-04-00400-CU-2XL-2XY-1100-IS7098P1-FRLS*†	4 x 4	Class 1	0.7	1.8	13.5	260
IC-PW-04-00600-CU-2XL-2XY-1100-IS7098P1-FRLS*†	4 x 6	Class 1	0.7	1.8	14.7	350
IC-PW-04-00400-CU-2XL-2XY-1100-IS7098P1-FRLS*†	4 x 4	Class 2	0.7	1.8	14.2	280
IC-PW-04-00600-CU-2XL-2XY-1100-IS7098P1-FRLS*†	4 x 6	Class 2	0.7	1.8	15.5	365
IC-PW-04-01000-CU-2XL-2XY-1100-IS7098P1-FRLS*	4 x 10	Class 2	0.7	1.8	17.8	510
IC-PW-04-01600-CU-2XL-2XY-1100-IS7098P1-FRLS*	4 x 16	Class 2	0.7	1.8	17.5 ‡	741
IC-PW-04-02500-CU-2XL-2XY-1100-IS7098P1-FRLS*	4 x 25	Class 2	0.9	2	21	1140
IC-PW-04-03500-CU-2XL-2XY-1100-IS7098P1-FRLS*	4 x 35	Class 2	0.9	2	23.5	1491
IC-PW-04-05000-CU-2XL-2XY-1100-IS7098P1-FRLS*	4 x 50	Class 2	1	2	26	1957
IC-PW-04-07000-CU-2XL-2XY-1100-IS7098P1-FRLS*	4 x 70	Class 2	1.1	2.2	30.5	2774
IC-PW-04-09500-CU-2XL-2XY-1100-IS7098P1-FRLS*	4 x 95	Class 2	1.1	2.2	33.5	3714
IC-PW-04-12000-CU-2XL-2XY-1100-IS7098P1-FRLS*	4 x 120	Class 2	1.2	2.4	37.5	4645
IC-PW-04-15000-CU-2XL-2XY-1100-IS7098P1-FRLS*	4 x 150	Class 2	1.4	2.6	42	5719
IC-PW-04-18500-CU-2XL-2XY-1100-IS7098P1-FRLS*	4 x 185	Class 2	1.6	2.8	46.5	7125
IC-PW-04-24000-CU-2XL-2XY-1100-IS7098P1-FRLS*	4 x 240	Class 2	1.7	3	52.5	9253
IC-PW-04-30000-CU-2XL-2XY-1100-IS7098P1-FRLS*	4 x 300	Class 2	1.8	3.2	58	11524

The above data is approximate & subject to manufacturing tolerance. Codes read 04 = 4 core · CU · 2XL XLPE · 2XY unarmoured, PVC sheathed · 1100 V grade · IS 7098 Part 1 · FRLS.

* All sixteen codes are registered in the Item Master (IC1001064–IC1001103) but every row still carries STATUS **DRAFT** — the steward must move them to ACTIVE before quoting. † The code structure carries no class-of-conductor token, so the Class 1 and Class 2 rows at 4 mm² and 6 mm² share one code each — read the class column with the code. ‡ The source gives 4 x 16 mm² an overall diameter of 17.5 mm, smaller than the 17.8 mm of 4 x 10 mm² — reproduced as written, flagged for check.

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ELECTRICAL CHARACTERISTICS

Nominal area of conductor mm²	Buried direct in the ground Amp.	In single way Ducts Amp.	In air Amp.	Max. DC conductor resistance at 20°C Ω/km
4	45	38	41	4.61
6	56	47	52	3.08
10	74	62	70	1.83
16	95	79	89	1.15
25	122	102	119	0.727
35	146	122	147	0.524
50	173	144	179	0.387
70	212	177	226	0.268
95	254	212	279	0.193
120	287	240	320	0.153
150	321	269	365	0.124
185	362	304	422	0.0991
240	418	352	500	0.0754
300	469	396	574	0.0601
400 §	528	447	662	0.047

Air Ambient temperature **40°C** | Ground ambient temperature **30°C** | In accordance with **IS 3961 (part 6):2016**

§ The source carries a 400 mm² current-rating row, but its weight & dimension table and the Item Master both stop at 300 mm² — no dimensions or product code exist for that size. Reproduced as written, flagged for check.

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DE-RATING FACTOR

Rating factor for variation in ambient air temperature for cable in free air

Ambient air Temperature	25°C	30°C	35°C	40°C	45°C	50°C	55°C	60°C
De-Rating Factor	1.14	1.10	1.05	1.00	0.95	0.89	0.84	0.77

Maximum conductor temperature 90°C

Rating factor for variation in ground temperature for direct buried cables.

Ground Temperature	15°C	20°C	25°C	30°C	35°C	40°C	45°C	50°C
De-Rating Factor	1.12	1.08	1.04	1.00	0.96	0.91	0.87	0.82

Maximum conductor temperature 90°C

Rating factor for variation in ground temperature for cable in duct.

Ground Temperature	15°C	20°C	25°C	30°C	35°C	40°C	45°C	50°C
De-Rating Factor	1.12	1.08	1.04	1.00	0.96	0.91	0.87	0.82

Maximum conductor temperature 90°C

The duct table repeats the direct-buried factors column for column in the source — reproduced as written.

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