INDO CABLES
EVERY CONNECTION MATTERS

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

LV-47
SHEET NO.

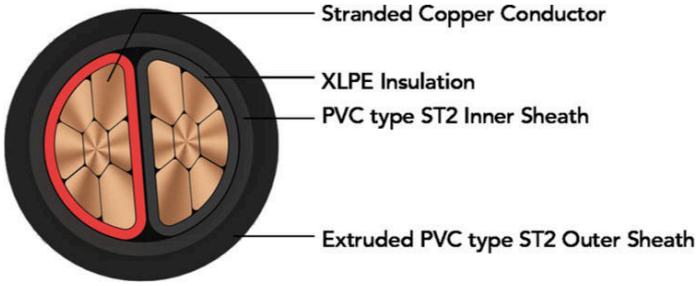
LOW VOLTAGE POWER CABLE · 2XY MC-2 · TWO-CORE COPPER UNARMOURED

650/1100 V AC · 2-CORE COPPER

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

650/1100 V	90 °C max.	250 °C	4–400 mm²
Voltage rating	Operation temperature	Short circuit temperature	Size range, 2 core

CABLE / SIDE VIEW · INDOCABLES sheath print



CROSS-SECTION · construction callouts

Images not to scale. Follow table for dimensions

APPLICATION

INDOCABLES 2XY MC-2, 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 (≤ 16 sqmm)/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 and Black
Bending radius	Fixed installation 12 x Overall diameter

Parth Chhaperia +918073533289 **Aryan Chhaperia** +91808810785 **Neelmani Chaudhary** +91 7011005815
cables@micagroup.net

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 60332-1:2015¶

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

Parth Chhaperia +918073533289 **Aryan Chhaperia** +91808810785 **Neelmani Chaudhary** +91 7011005815
cables@micagroup.net

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-02-00400-CU-2XL-2XY-1100-IS7098P1-FRLS§	2 x 4	Class1	0.7	1.8	12.5	165
IC-PW-02-00600-CU-2XL-2XY-1100-IS7098P1-FRLS§	2 x 6	Class1	0.7	1.8	13.5	210
IC-PW-02-00400-CU-2XL-2XY-1100-IS7098P1-FRLS§	2 x 4	Class 2	0.7	1.8	13	175
IC-PW-02-00600-CU-2XL-2XY-1100-IS7098P1-FRLS§	2 x 6	Class 2	0.7	1.8	14	225
IC-PW-02-01000-CU-2XL-2XY-1100-IS7098P1-FRLS	2 x 10	Class 2	0.7	1.8	16	300
IC-PW-02-01600-CU-2XL-2XY-1100-IS7098P1-FRLS	2 x 16	Class 2	0.7	1.8	14‡	422
IC-PW-02-02500-CU-2XL-2XY-1100-IS7098P1-FRLS	2 x 25	Class 2	0.9	2	17	636
IC-PW-02-03500-CU-2XL-2XY-1100-IS7098P1-FRLS	2 x 35	Class 2	0.9	2	19	817
IC-PW-02-05000-CU-2XL-2XY-1100-IS7098P1-FRLS	2 x 50	Class 2	1	2	21	1054
IC-PW-02-07000-CU-2XL-2XY-1100-IS7098P1-FRLS	2 x 70	Class 2	1.1	2	23	1453
IC-PW-02-09500-CU-2XL-2XY-1100-IS7098P1-FRLS	2 x 95	Class 2	1.1	2.2	26.5	1966
IC-PW-02-12000-CU-2XL-2XY-1100-IS7098P1-FRLS	2 x 120	Class 2	1.2	2.2	28.5	2413
IC-PW-02-15000-CU-2XL-2XY-1100-IS7098P1-FRLS	2 x 150	Class 2	1.4	2.2	32	2935
IC-PW-02-18500-CU-2XL-2XY-1100-IS7098P1-FRLS	2 x 185	Class 2	1.6	2.4	35.5	3676
IC-PW-02-24000-CU-2XL-2XY-1100-IS7098P1-FRLS	2 x 240	Class 2	1.7	2.6	39.5	4750
IC-PW-02-30000-CU-2XL-2XY-1100-IS7098P1-FRLS	2 x 300	Class 2	1.8	2.8	43.5	5918
IC-PW-02-40000-CU-2XL-2XY-1100-IS7098P1-FRLS†	2 x 400	Class 2	2	3	49	7495

The above data is approximate & subject to manufacturing tolerance. Codes read 02 = two core · CU · 2XL XLPE · 2XY unarmoured PVC sheath · 1100 V grade · IS 7098 Part 1 · FRLS.

† Derived from the code structure — 400 mm² is not registered in the Item Master for this construction (the 2 core 2XY series runs 1.5–300 mm²). Flagged for the Item Master Steward. § The register carries no conductor-class field, so the Class 1 and Class 2 rows at 4 mm² and 6 mm² each resolve to one item code — flagged. ‡ The source gives 14 mm overall diameter at 2 x 16 mm², below the 16 mm given at 2 x 10 mm² — reproduced as written, flagged for check. ¶ The source cites the flammability standard as IEC 60332-1:2015; the current part designation is IEC 60332-1-2 — reproduced as written, flagged for check.

Parth Chhaperia +918073533289 **Aryan Chhaperia** +91808810785 **Neelmani Chaudhary** +91 7011005815
cables@micagroup.net

ELECTRICAL CHARACTERISTICS

Current carrying capacity and maximum DC conductor resistance.

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	54	45	48	4.61
6	67	56	61	3.08
10	89	75	83	1.83
16	115	96	108	1.15
25	147	122	140	0.727
35	176	146	172	0.524
50	208	173	208	0.387
70	253	211	262	0.268
95	302	252	322	0.193
120	340	284	368	0.153
150	379	317	419	0.124
185	425	357	482	0.0991
240	486	409	566	0.0754
300	541	456	644	0.0601
400	602	508	734	0.047
500*	665	562	831	0.0366
630*	728	616	936	0.0283

Air ambient temperature: 40°C. Ground ambient temperature: 30°C. The above table is in accordance with IS 3961 (Part 6):2016.

* The electrical table carries 500 mm² and 630 mm² rows; the dimension table stops at 400 mm² — reproduced as written, flagged for check.

Parth Chhaperia +918073533289 **Aryan Chhaperia** +91808810785 **Neelmani Chaudhary** +91 7011005815
cables@micagroup.net

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.

Parth Chhaperia +918073533289 **Aryan Chhaperia** +91808810785 **Neelmani Chaudhary** +91 7011005815
cables@micagroup.net