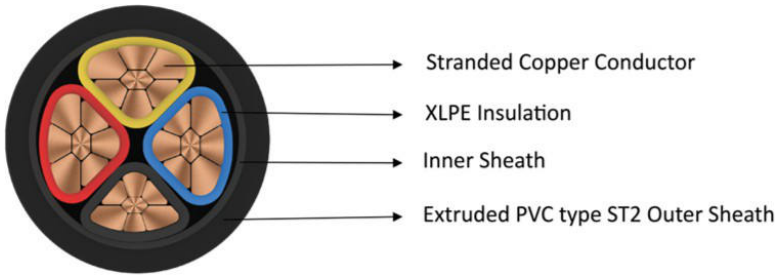
LOW VOLTAGE POWER CABLE · 2XY MC-3.5 · UNARMOURED

650/1100 V · 3.5-CORE COPPER

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

650/1100 V	90 °C max.	250 °C	12 × OD
Voltage rating	Operating temperature	Short-circuit temperature	Bending radius, fixed installation

CABLE / SIDE VIEW · INDOCABLES sheath print



CROSS-SECTION · construction callouts

Images not to scale. Follow table for dimensions.

APPLICATION

INDOCABLES 2XY MC-3.5, 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 copper conductor as per IS 8130, class 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 × 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

NOTES

- Other color also available on request.
- Cable available with anti-rodent & termite

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

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-3H-02500-CU-2XL-2XY-1100-IS7098P 1-FRLS	3.5 × 25	Class 2	0.9/0.7	2	21.3	1035
IC-PW-3H-03500-CU-2XL-2XY-1100-IS7098P 1-FRLS	3.5 × 35	Class 2	0.9/0.7	2	23.6	1311
IC-PW-3H-05000-CU-2XL-2XY-1100-IS7098P 1-FRLS	3.5 × 50	Class 2	1/0.9	2	26.8	1748
IC-PW-3H-07000-CU-2XL-2XY-1100-IS7098P 1-FRLS	3.5 × 70	Class 2	1.1/0.9	2.2	31	2460
IC-PW-3H-09500-CU-2XL-2XY-1100-IS7098P 1-FRLS	3.5 × 95	Class 2	1.1/1	2.2	34.3	3287
IC-PW-3H-12000-CU-2XL-2XY-1100-IS7098P 1-FRLS	3.5 × 120	Class 2	1.2/1.1	2.2	37.6	4142
IC-PW-3H-15000-CU-2XL-2XY-1100-IS7098P 1-FRLS	3.5 × 150	Class 2	1.4/1.1	2.4	42.3	4987
IC-PW-3H-18500-CU-2XL-2XY-1100-IS7098P 1-FRLS	3.5 × 185	Class 2	1.6/1.1	2.6	46.8	6279
IC-PW-3H-24000-CU-2XL-2XY-1100-IS7098P 1-FRLS	3.5 × 240	Class 2	1.7/1.2	2.8	52.4	8122
IC-PW-3H-30000-CU-2XL-2XY-1100-IS7098P 1-FRLS	3.5 × 300	Class 2	1.8/1.4	3	57	10079
IC-PW-3H-40000-CU-2XL-2XY-1100-IS7098P 1-FRLS	3.5 × 400	Class 2	2/1.6	3.4	65	12834.5

The above data is approximate & subject to manufacturing tolerance. Codes shown are the FRLS sheath variant, registered in the Indo Cables Item Master; the ST2 variant carries the same code with no suffix and the FR variant the –FR suffix.

ELECTRICAL CHARACTERISTICS

Current carrying capacity and maximum DC conductor resistance. Air ambient temperature: 40°C. Ground ambient temperature: 30°C.

Nominal area of conductor	Buried direct in the ground	In single way Ducts	In air	Max. DC conductor resistance at 20°C
mm²	Amp.	Amp.	Amp.	Ω/km
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

The above data is approximate & subject to manufacturing tolerance. The above table is in accordance with IS 3961 (part 6):2016.

DE-RATING FACTOR

Rating factor for variation in ambient air temperature for cable in free air — maximum conductor temperature 90°C

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

Rating factor for variation in ground temperature for direct buried cables — maximum conductor temperature 90°C

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

Rating factor for variation in ground temperature for cable in duct — maximum conductor temperature 90°C

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

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

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