INDO CABLES
EVERY CONNECTION MATTERS

PRODUCT DATASHEET
2XWY MC-3 · IS 7098-P1

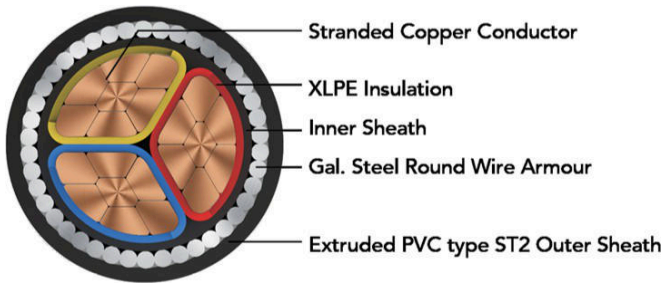
LV-42
SHEET NO.

LOW VOLTAGE POWER CABLE · INDOCABLES 2XWY MC-3 · 3 CORE ROUND WIRE ARMOURED

650/1100 V AC · 3 CORE COPPER

Stranded compacted copper conductor · XLPE insulated · PVC inner sheath · Galvanized steel round wire armour · PVC sheathed to IS 7098-1

650/1100 V	90 °C max.	250 °C	1500 V DC	4–400 mm²
Voltage rating	Operation temperature	Short circuit temperature	DC systems, to earth	Size range, 3 core



CROSS SECTION · LAYER CALLOUTS

CABLE / SIDE VIEW · INDOCABLES sheath print

Images not to scale. Follow table for dimensions

APPLICATION

INDOCABLES 2XWY MC-3, Stranded compacted copper conductor, XLPE insulated, PVC inner sheathed, Galvanized Steel round wire armour 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 sector shaped 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
Armour	Armoured with Galvanized Steel round wire to IS 3975
Outer sheath	Sheathed with Extruded PVC Type ST2/FRLS/FR/LSZH
Core identification	Red, Yellow, Blue
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 3975:1979
- 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

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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 dimension of Armour round wire mm	Minimum thickness of outer sheath mm	Overall Diameter mm	Weight (Approx.) kg/km
IC-PW-03-00400-CU-2XL-2XWY-1100-IS7098P1-FRLS§	3 x 4	Class 1	0.7	1.4	1.24	15	530
IC-PW-03-00400-CU-2XL-2XWY-1100-IS7098P1-FRLS§	3 x 4	Class 2	0.7	1.4	1.24	16	460
IC-PW-03-00600-CU-2XL-2XWY-1100-IS7098P1-FRLS§	3 x 6	Class 1	0.7	1.4	1.24	16	640
IC-PW-03-00600-CU-2XL-2XWY-1100-IS7098P1-FRLS§	3 x 6	Class 2	0.7	1.4	1.24	17	551
IC-PW-03-01000-CU-2XL-2XWY-1100-IS7098P1-FRLS	3 x 10	Class 2	0.7	1.4	1.24	19	722
IC-PW-03-01600-CU-2XL-2XWY-1100-IS7098P1-FRLS	3 x 16	Class 2	0.7	1.6	1.4	18.8	921
IC-PW-03-02500-CU-2XL-2XWY-1100-IS7098P1-FRLS	3 x 25	Class 2	0.9	1.6	1.4	21.7	1282
IC-PW-03-03500-CU-2XL-2XWY-1100-IS7098P1-FRLS	3 x 35	Class 2	0.9	1.6	1.4	23.6	1596
IC-PW-03-05000-CU-2XL-2XWY-1100-IS7098P1-FRLS	3 x 50	Class 2	1	1.6	1.56	26.8	2042
IC-PW-03-07000-CU-2XL-2XWY-1100-IS7098P1-FRLS	3 x 70	Class 2	1.1	2	1.56	30.9	2888
IC-PW-03-09500-CU-2XL-2XWY-1100-IS7098P1-FRLS	3 x 95	Class 2	1.1	2	1.56	33.7	3686
IC-PW-03-12000-CU-2XL-2XWY-1100-IS7098P1-FRLS	3 x 120	Class 2	1.2	2	1.72	37	4455
IC-PW-03-15000-CU-2XL-2XWY-1100-IS7098P1-FRLS	3 x 150	Class 2	1.4	2	1.88	41.1	5396
IC-PW-03-18500-CU-2XL-2XWY-1100-IS7098P1-FRLS	3 x 185	Class 2	1.6	2.5	2.04	46	6868
IC-PW-03-24000-CU-2XL-2XWY-1100-IS7098P1-FRLS	3 x 240	Class 2	1.7	2.5	2.2	50.9	8654
IC-PW-03-30000-CU-2XL-2XWY-1100-IS7098P1-FRLS	3 x 300	Class 2	1.8	2.5	2.36	55.5	10526
IC-PW-03-40000-CU-2XL-2XWY-1100-IS7098P1-FRLS	3 x 400	Class 2	2	3.15	2.68	64	13718

The above data is approximate & subject to manufacturing tolerance. Codes read 03 = three core · CU · 2XL XLPE · 2XWY galvanized steel round wire armour, PVC sheath · 1100 V grade · IS 7098 Part 1 · FRLS.

§ Every row was found in the Item Master. 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 for the Item Master Steward. The same two sizes carry a higher weight but a smaller overall diameter on Class 1 than on Class 2 — 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.

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ELECTRICAL CHARACTERISTICS

Current carrying capacity and maximum DC conductor resistance.

Nominal area of conductor mm^2	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** | Conductor operating temperature **90°C** | Per **IS 3961 (Part 6):2016**

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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 and direct-buried factors are identical in the source — reproduced as written.

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