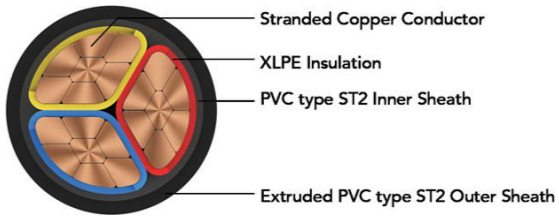
LOW VOLTAGE POWER CABLE · INDOCABLES 2XY MC-3 · 3 CORE UNARMOURED

650/1100 V · 3 CORE COPPER

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

650/1100 V	90 °C max.	250 °C	12 × OD
Voltage rating	Operation 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, 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, Yellow and Blue
Bending radius	Fixed installation 12 x Overall diameter

OUTSTANDING FEATURES

Flame retardant · Low smoke

Low halogen

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
Quality management system certified

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-03-00400-CU-2XL-2XY-1100-IS7098P1-FRLS §	3 x 4	Class1	0.7	1.8	13	210
IC-PW-03-00400-CU-2XL-2XY-1100-IS7098P1-FRLS §	3 x 4	Class 2	0.7	1.8	13.5	232
IC-PW-03-00600-CU-2XL-2XY-1100-IS7098P1-FRLS §	3 x 6	Class1	0.7	1.8	14	280
IC-PW-03-00600-CU-2XL-2XY-1100-IS7098P1-FRLS §	3 x 6	Class 2	0.7	1.8	15	299
IC-PW-03-01000-CU-2XL-2XY-1100-IS7098P1-FRLS	3 x 10	Class 2	0.7	1.8	16.5	415
IC-PW-03-01600-CU-2XL-2XY-1100-IS7098P1-FRLS	3 x 16	Class 2	0.7	1.8	16.2 †	425
IC-PW-03-02500-CU-2XL-2XY-1100-IS7098P1-FRLS	3 x 25	Class 2	0.9	2	19.5	874
IC-PW-03-03500-CU-2XL-2XY-1100-IS7098P1-FRLS	3 x 35	Class 2	0.9	2	21.5	1150
IC-PW-03-05000-CU-2XL-2XY-1100-IS7098P1-FRLS	3 x 50	Class 2	1	2	24.5	1501
IC-PW-03-07000-CU-2XL-2XY-1100-IS7098P1-FRLS	3 x 70	Class 2	1.1	2.2	28	2118
IC-PW-03-09500-CU-2XL-2XY-1100-IS7098P1-FRLS	3 x 95	Class 2	1.1	2.2	30.8	2821
IC-PW-03-12000-CU-2XL-2XY-1100-IS7098P1-FRLS	3 x 120	Class 2	1.2	2.2	33.8	3496
IC-PW-03-15000-CU-2XL-2XY-1100-IS7098P1-FRLS	3 x 150	Class 2	1.4	2.4	37.9	4322
IC-PW-03-18500-CU-2XL-2XY-1100-IS7098P1-FRLS	3 x 185	Class 2	1.6	2.6	42	5377
IC-PW-03-24000-CU-2XL-2XY-1100-IS7098P1-FRLS	3 x 240	Class 2	1.7	2.8	46.9	6992
IC-PW-03-30000-CU-2XL-2XY-1100-IS7098P1-FRLS	3 x 300	Class 2	1.8	3	51.5	8683
IC-PW-03-40000-CU-2XL-2XY-1100-IS7098P1-FRLS	3 x 400	Class 2	2	3.2	58.6	11029

The above data is approximate & subject to manufacturing tolerance. Codes read 03 = 3 core · CU · 2XL XLPE · 2XY unarmoured, PVC sheathed · 1100 V grade · IS 7098 Part 1 · FRLS. All seventeen rows are looked up in the Indo Cables Item Master (IC1000974 – IC1001016); every row there still carries STATUS = DRAFT.

§ The Item Master code structure has no conductor-class field, so the Class 1 and Class 2 rows at 3 x 4 and 3 x 6 sqmm resolve to the same code. Flagged for the Item Master Steward. † Overall diameter at 3 x 16 sqmm (16.2 mm) is printed smaller than at 3 x 10 sqmm (16.5 mm) in the source — reproduced as written, flagged for check.

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	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** | Maximum conductor temperature **90°C**

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

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.

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.

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 carries the same factors as the direct-buried table above it in the source — reproduced as written, flagged for check.