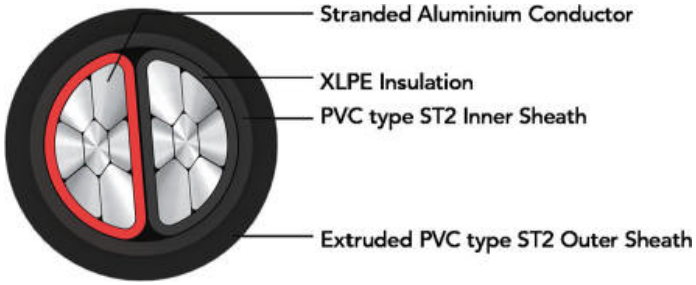
LOW VOLTAGE POWER CABLE · INDOCABLES A2XY MC-2 · 2 CORE UNARMOURED

650/1100 V AC · 2 CORE ALUMINIUM

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

650/1100 V	90 °C max.	250 °C	1500 V DC	4–630 mm²
Voltage rating	Operation temperature	Short circuit temperature	DC systems, to earth	Size range, 2 core



CROSS SECTION · LAYER CALLOUTS

CABLE / SIDE VIEW · INDOCABLES sheath print

Images not to scale. Follow table for dimensions

APPLICATION

INDOCABLES A2XY MC-2, Stranded compacted aluminium 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 compacted (≤ 16 sqmm)/Non compacted aluminium 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

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

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-AL-2XL-A2XY-1100-IS7098P1-FRLS*§	2 x 4	Class1	0.7	1.8	12.5	140
IC-PW-02-00600-AL-2XL-A2XY-1100-IS7098P1-FRLS*§	2 x 6	Class1	0.7	1.8	13.5	170
IC-PW-02-01000-AL-2XL-A2XY-1100-IS7098P1-FRLS§	2 x 10	Class1	0.7	1.8	15	205
IC-PW-02-00400-AL-2XL-A2XY-1100-IS7098P1-FRLS*§	2 x 4	Class 2	0.7	1.8	13	150
IC-PW-02-00600-AL-2XL-A2XY-1100-IS7098P1-FRLS*§	2 x 6	Class 2	0.7	1.8	14	180
IC-PW-02-01000-AL-2XL-A2XY-1100-IS7098P1-FRLS§	2 x 10	Class 2	0.7	1.8	16	225
IC-PW-02-01600-AL-2XL-A2XY-1100-IS7098P1-FRLS	2 x 16	Class 2	0.7	1.8	14 ‡	225
IC-PW-02-02500-AL-2XL-A2XY-1100-IS7098P1-FRLS	2 x 25	Class 2	0.9	2	17	330
IC-PW-02-03500-AL-2XL-A2XY-1100-IS7098P1-FRLS	2 x 35	Class 2	0.9	2	19	410
IC-PW-02-05000-AL-2XL-A2XY-1100-IS7098P1-FRLS	2 x 50	Class 2	1	2	21	510
IC-PW-02-07000-AL-2XL-A2XY-1100-IS7098P1-FRLS	2 x 70	Class 2	1.1	2	23	675
IC-PW-02-09500-AL-2XL-A2XY-1100-IS7098P1-FRLS	2 x 95	Class 2	1.1	2.2	26.5	893
IC-PW-02-12000-AL-2XL-A2XY-1100-IS7098P1-FRLS	2 x 120	Class 2	1.2	2.2	28.5	1050
IC-PW-02-15000-AL-2XL-A2XY-1100-IS7098P1-FRLS	2 x 150	Class 2	1.4	2.2	32	1215
IC-PW-02-18500-AL-2XL-A2XY-1100-IS7098P1-FRLS	2 x 185	Class 2	1.6	2.4	35.5	1510
IC-PW-02-24000-AL-2XL-A2XY-1100-IS7098P1-FRLS	2 x 240	Class 2	1.7	2.6	39.5	1900
IC-PW-02-30000-AL-2XL-A2XY-1100-IS7098P1-FRLS	2 x 300	Class 2	1.8	2.8	43.5	2360
IC-PW-02-40000-AL-2XL-A2XY-1100-IS7098P1-FRLS*	2 x 400	Class 2	2	3	49	3100
IC-PW-02-50000-AL-2XL-A2XY-1100-IS7098P1-FRLS*	2 x 500	Class 2	2.2	3.4	55.5	4000
IC-PW-02-63000-AL-2XL-A2XY-1100-IS7098P1-FRLS*	2 x 630	Class 2	2.4	3.6	61.5	4997

The above data is approximate & subject to manufacturing tolerance. Codes read 02 = 2 core · AL · 2XL XLPE · A2XY unarmoured, PVC sheathed · 1100 V grade · IS 7098 Part 1 · FRLS.

Twelve sizes (10–300 mm²) are registered in the Item Master as IC1001153–IC1001186, every row STATUS **DRAFT** — the steward must move them to ACTIVE before quoting. * 4, 6, 400, 500 and 630 mm² are not in the register for this family; codes derived from the published code structure, item IDs pending. § The code structure carries no conductor-class segment, so the Class 1 and Class 2 rows at 4, 6 and 10 mm² resolve to one code each despite different diameters and weights — flagged for the steward. ‡ The source gives 2 x 16 Class 2 an overall diameter of 14 mm, below the 16 mm it gives 2 x 10 Class 2, at the same weight. 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	42	36	38	7.41
6	55	46	50	4.61
10	68	57	64	3.08
16	89	74	83	1.91
25	114	95	109	1.2
35	136	113	133	0.868
50	161	134	162	0.641
70	197	164	204	0.443
95	235	196	251	0.32
120	266	222	287	0.253
150	296	248	328	0.206
185	335	281	379	0.164
240	385	324	448	0.125
300	432	364	513	0.100
400	487	412	593	0.0778
500	548	463	683	0.0605
630	612	518	784	0.0469

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

The source splits this table across two pages at 16 / 25 mm²; the rows are reproduced here as one continuous sequence. ¶ The source cites the flammability test as IEC 60332-1:2015; the companion sheets in this set cite IEC 60332-1-2:2015. Reproduced as written, flagged for check.

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.