INDO CABLES
EVERY CONNECTION MATTERS

PRODUCT DATASHEET
A2XY MC-4 · IS 7098-P1

LV-32
SHEET NO.

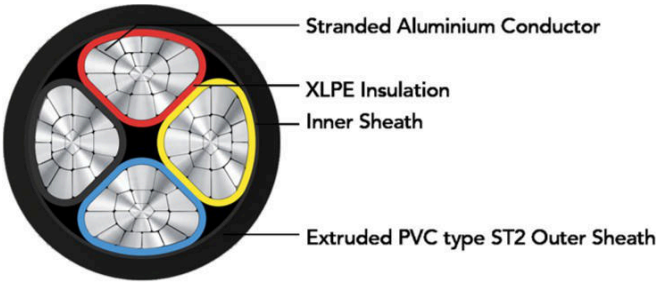
LOW VOLTAGE POWER CABLE · A2XY MC-4 · FOUR CORE UNARMOURED

650/1100 V AC · 4-CORE ALUMINIUM

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

650/1100 V	90 °C max.	250 °C	1500 V DC
Voltage rating	Operation temperature	Short-circuit temperature	DC systems to earth

CABLE / SIDE VIEW · INDOCABLES sheath print



CROSS-SECTION · construction callouts

Images not to scale. Follow table for dimensions.

APPLICATION

INDOCABLES A2XY MC-4, Stranded compacted aluminum 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, Yellow, Blue 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

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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 thickness of outer sheath mm	Overall diameter mm	Weight (approx.) kg/km
IC-PW-04-00400-AL-2XL-A2XY-1100-IS7098P1-FRLS †	4x4	Class 1	0.7	1.8	13.5	160
IC-PW-04-00600-AL-2XL-A2XY-1100-IS7098P1-FRLS †	4x6	Class 1	0.7	1.8	14.7	200
IC-PW-04-01000-AL-2XL-A2XY-1100-IS7098P1-FRLS	4x10	Class 1	0.7	1.8	16.6	250
IC-PW-04-00400-AL-2XL-A2XY-1100-IS7098P1-FRLS †	4x4	Class 2	0.7	1.8	14.2	180
IC-PW-04-00600-AL-2XL-A2XY-1100-IS7098P1-FRLS †	4x6	Class 2	0.7	1.8	15.5	215
IC-PW-04-01000-AL-2XL-A2XY-1100-IS7098P1-FRLS	4x10	Class 2	0.7	1.8	17.5	260
IC-PW-04-01600-AL-2XL-A2XY-1100-IS7098P1-FRLS	4x16	Class 2	0.7	1.8	17.8	350
IC-PW-04-02500-AL-2XL-A2XY-1100-IS7098P1-FRLS	4x25	Class 2	0.9	2	21	550
IC-PW-04-03500-AL-2XL-A2XY-1100-IS7098P1-FRLS	4x35	Class 2	0.9	2	23.5	680
IC-PW-04-05000-AL-2XL-A2XY-1100-IS7098P1-FRLS	4x50	Class 2	1	2	26	875
IC-PW-04-07000-AL-2XL-A2XY-1100-IS7098P1-FRLS	4x70	Class 2	1.1	2.2	30.5	1200
IC-PW-04-09500-AL-2XL-A2XY-1100-IS7098P1-FRLS ‡	4x95	Class 2	1.1	2.2	33.5	1530
IC-PW-04-12000-AL-2XL-A2XY-1100-IS7098P1-FRLS	4x120	Class 2	1.2	2.4	37.5	1850
IC-PW-04-15000-AL-2XL-A2XY-1100-IS7098P1-FRLS	4x150	Class 2	1.4	2.6	42	2280
IC-PW-04-18500-AL-2XL-A2XY-1100-IS7098P1-FRLS	4x185	Class 2	1.6	2.8	46.5	2800
IC-PW-04-24000-AL-2XL-A2XY-1100-IS7098P1-FRLS	4x240	Class 2	1.7	3	52.5	3700
IC-PW-04-30000-AL-2XL-A2XY-1100-IS7098P1-FRLS	4x300	Class 2	1.8	3.2	58	4600
IC-PW-04-40000-AL-2XL-A2XY-1100-IS7098P1-FRLS †	4x400	Class 2	2	3.6	65.5	6000

The above data is approximate & subject to manufacturing tolerance. Codes read 04 = 4 core · AL · 2XL XLPE · A2XY unarmoured PVC sheath · 1100 V · IS 7098 Part 1 · FRLS.

† Derived from the code structure — 4 mm², 6 mm² and 400 mm² are not registered in the Item Master for this construction (the 4-core A2XY series runs 10–300 mm²). Flagged for the Item Master Steward. ‡ Source datasheet repeated the 70 mm² code on the 95 mm² row; the 95 mm² code is used here and the duplication flagged. The register carries no conductor-class field, so Class 1 and Class 2 of the same size resolve to one code — flagged.

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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	35	30	32	7.41
6	46	38	42	4.61
10	57	48	54	3.08
16	74	61	69	1.91
25	95	79	93	1.2
35	114	94	114	0.868
50	134	112	138	0.641
70	164	137	175	0.443
95	197	164	216	0.32
120	223	187	249	0.253
150	249	209	284	0.206
185	282	238	329	0.164
240	327	276	392	0.125
300	369	312	452	0.1
400	420	356	526	0.0778
500	478	412	612	0.0605

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. The 500 mm² row has no matching entry in the weight & dimension table above, which stops at 400 mm² — flagged for check.

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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

Source gives identical factors for direct-buried and in-duct laying — reproduced as written, flagged for check.

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