INDO CABLES
EVERY CONNECTION MATTERS

PRODUCT DATASHEET
A2XY MC-3 · IS 7098-1

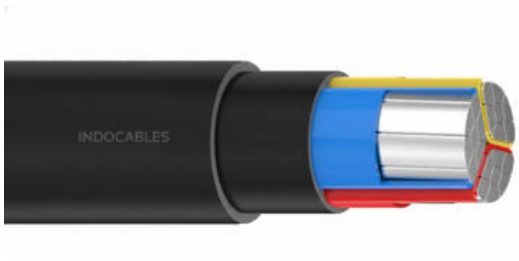
LV-22
SHEET NO.

LOW VOLTAGE POWER CABLE · A2XY MC-3 · UNARMOURED

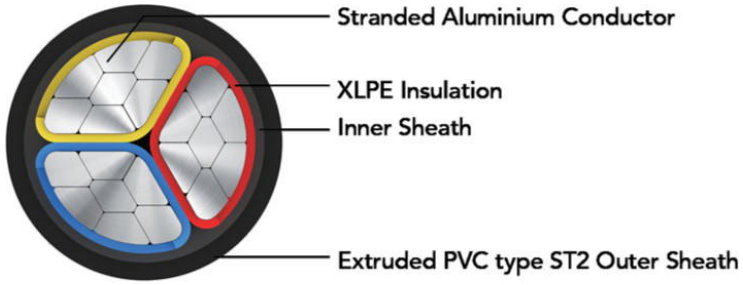
650/1100 V AC · THREE-CORE ALUMINIUM

Stranded compacted aluminium · XLPE insulated · PVC inner sheathed · PVC outer sheathed · manufactured to IS 7098-1

650/1100 V	+90 °C	250 °C
Voltage rating · AC	Max. operating temperature	Short-circuit temperature



CABLE / SIDE VIEW · INDOCABLES sheath print



CROSS-SECTION · construction callouts

Images not to scale. Follow table for dimensions.

APPLICATION

INDOCABLES A2XY MC-3, 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/Non compacted aluminium conductor as per IS 8130, class1&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

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

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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-03-00400-AL-2XL-A2XY-1100-IS7098 P1-FRLS†	3 × 4	Class1	0.7	1.8	13	140
IC-PW-03-00600-AL-2XL-A2XY-1100-IS7098 P1-FRLS†	3 × 6	Class1	0.7	1.8	14.5	170
IC-PW-03-01000-AL-2XL-A2XY-1100-IS7098 P1-FRLS	3 × 10	Class1	0.7	1.8	15.5	220
IC-PW-03-00400-AL-2XL-A2XY-1100-IS7098 P1-FRLS†	3 × 4	Class 2	0.7	1.8	13.5	160
IC-PW-03-00600-AL-2XL-A2XY-1100-IS7098 P1-FRLS†	3 × 6	Class 2	0.7	1.8	15	190
IC-PW-03-01000-AL-2XL-A2XY-1100-IS7098 P1-FRLS	3 × 10	Class 2	0.7	1.8	17‡	230
IC-PW-03-01600-AL-2XL-A2XY-1100-IS7098 P1-FRLS	3 × 16	Class 2	0.7	1.8	16.2‡	304
IC-PW-03-02500-AL-2XL-A2XY-1100-IS7098 P1-FRLS	3 × 25	Class 2	0.9	2	19.5	446
IC-PW-03-03500-AL-2XL-A2XY-1100-IS7098 P1-FRLS	3 × 35	Class 2	0.9	2	21.5	551
IC-PW-03-05000-AL-2XL-A2XY-1100-IS7098 P1-FRLS	3 × 50	Class 2	1	2	24.5	693
IC-PW-03-07000-AL-2XL-A2XY-1100-IS7098 P1-FRLS	3 × 70	Class 2	1.1	2.2	28	950
IC-PW-03-09500-AL-2XL-A2XY-1100-IS7098 P1-FRLS	3 × 95	Class 2	1.1	2.2	30.8	1206
IC-PW-03-12000-AL-2XL-A2XY-1100-IS7098 P1-FRLS	3 × 120	Class 2	1.2	2.2	33.8	1463
IC-PW-03-15000-AL-2XL-A2XY-1100-IS7098 P1-FRLS	3 × 150	Class 2	1.4	2.4	37.9	1814
IC-PW-03-18500-AL-2XL-A2XY-1100-IS7098 P1-FRLS	3 × 185	Class 2	1.6	2.6	42	2242
IC-PW-03-24000-AL-2XL-A2XY-1100-IS7098 P1-FRLS	3 × 240	Class 2	1.7	2.8	46.9	2869
IC-PW-03-30000-AL-2XL-A2XY-1100-IS7098 P1-FRLS	3 × 300	Class 2	1.8	3	51.5	3505
IC-PW-03-40000-AL-2XL-A2XY-1100-IS7098 P1-FRLS	3 × 400	Class 2	2	3.2	58.6	4427
IC-PW-03-50000-AL-2XL-A2XY-1100-IS7098 P1-FRLS†	3 × 500	Class 2	2.2	3.6	66	5681
IC-PW-03-63000-AL-2XL-A2XY-1100-IS7098 P1-FRLS†	3 × 630	Class 2	2.4	3.8	72	7125

The above data is approximate & subject to manufacturing tolerance. Codes shown are the FRLS sheath variant, matching the source register entry; the plain ST2 variant carries the same code without a suffix and the FR variant the −FR suffix. Base codes 10–400 mm² are registered in the Item Master (DRAFT). †4, 6, 500 and 630 mm² are not in the register — codes derived from the published code structure and flagged for registration. Conductor class is not carried by the code structure, so Class 1 and Class 2 rows of the same size share one code. ‡Source gives a larger overall diameter for 3 × 10 Class 2 (17 mm) than for 3 × 16 Class 2 (16.2 mm) — reproduced as written, flagged for check.

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ELECTRICAL CHARACTERISTICS

Current rating 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

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

Source gives current ratings up to 400 mm² only; 500 mm² and 630 mm² appear in the weight & dimension table but carry no electrical data — 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 cables — reproduced as written, flagged for check.

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

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