LOW VOLTAGE POWER CABLE · A2XFY MC-3 · FLAT STRIP ARMOURED

650/1100 V AC · THREE-CORE ALUMINIUM

XLPE insulated · PVC inner sheathed · galvanised steel flat strip armoured · 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 A2XFY MC-3, Stranded compacted aluminium conductor, XLPE insulated, PVC inner sheathed, Galvanized Steel Flat strip 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 compacted sector shaped Aluminium conductor as per IS 8130, class 2
Insulation	Cross Linked Polyethylene (XLPE) to IS 7098-1
Inner sheath	Extruded inner sheath with PVC Type ST2/FRLS/FR/LSZH
Armouring	Galvanised Flat Steel Strip to IS 3975
Outer sheath	Extruded PVC Type ST2/FRLS/FR/LSZH
Core identification	Red, Yellow, Blue
Bending radius	Fixed installation: 12 × 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`

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WEIGHT & DIMENSION DATA

Product code	Nominal cross-sectional area n × mm²	Nominal thickness of insulation mm	Nominal dimension of armour flat wire mm	Minimum thickness of outer sheath mm	Overall diameter mm	Weight (approx.) kg/km
IC-PW-03-01600-AL-2XL-A2XFY-1100-IS7098P1-FRLS	3 × 16	0.7	4 × 0.8	1.24	16.8	487.6
IC-PW-03-02500-AL-2XL-A2XFY-1100-IS7098P1-FRLS	3 × 25	0.9	4 × 0.8	1.4	20.1	670.7
IC-PW-03-03500-AL-2XL-A2XFY-1100-IS7098P1-FRLS	3 × 35	0.9	4 × 0.8	1.4	22	798
IC-PW-03-05000-AL-2XL-A2XFY-1100-IS7098P1-FRLS	3 × 50	1	4 × 0.8	1.4	24.8	960
IC-PW-03-07000-AL-2XL-A2XFY-1100-IS7098P1-FRLS	3 × 70	1.1	4 × 0.8	1.56	28.5	1282
IC-PW-03-09500-AL-2XL-A2XFY-1100-IS7098P1-FRLS	3 × 95	1.1	4 × 0.8	1.56	31.3	1577
IC-PW-03-12000-AL-2XL-A2XFY-1100-IS7098P1-FRLS	3 × 120	1.2	4 × 0.8	1.56	34.3	1871
IC-PW-03-15000-AL-2XL-A2XFY-1100-IS7098P1-FRLS	3 × 150	1.4	4 × 0.8	1.72	38.3	2100
IC-PW-03-18500-AL-2XL-A2XFY-1100-IS7098P1-FRLS	3 × 185	1.6	4 × 0.8	1.88	42.3	2500
IC-PW-03-24000-AL-2XL-A2XFY-1100-IS7098P1-FRLS	3 × 240	1.7	4 × 0.8	2.04	47.2	3382
IC-PW-03-30000-AL-2XL-A2XFY-1100-IS7098P1-FRLS	3 × 300	1.8	4 × 0.8	2.2	51.8	5101‡
IC-PW-03-40000-AL-2XL-A2XFY-1100-IS7098P1-FRLS	3 × 400	2	4 × 0.8	2.52	58.5	5101‡
IC-PW-03-50000-AL-2XL-A2XFY-1100-IS7098P1-FRLS†	3 × 500	2.2	4 × 0.8	2.68	65	6365
IC-PW-03-63000-AL-2XL-A2XFY-1100-IS7098P1-FRLS†	3 × 630	2.4	4 × 0.8	2.84	73	7894

The above data is approximate & subject to manufacturing tolerance. Base codes 16–400 mm² are registered in the Item Master (DRAFT); the −FRLS option segment is appended per the code structure. †500 mm² and 630 mm² are not in the register at all — codes derived from the published structure and flagged for registration. ‡Source gives the same weight, 5101 kg/km, for both 300 mm² and 400 mm² — reproduced as written, flagged for check.

ELECTRICAL CHARACTERISTICS

Current carrying capacity and max. DC conductor resistance at 20°C.

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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
16	74	61	69	1.91
25	95	79	93	1.20
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	0.100
400	420	356	526	0.0778
500	478	412	612	0.0605

Source datasheet gives no current-carrying capacity or resistance row for 630 mm², though the size appears in the dimension table above — flagged for check.

90°C Conductor operating temperature	**40°C** Air ambient temperature	**30°C** Ground ambient temperature	**IS 3961 (Part 6):2016** Basis of the above table

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DE-RATING FACTORS

Rating factor for variation in ambient air temperature for cable in free air. Maximum conductor temperature 90°C.

Ambient air temperature °C	25	30	35	40	45	50	55	60
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 °C	15	20	25	30	35	40	45	50
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 °C	15	20	25	30	35	40	45	50
De-rating factor	1.12	1.08	1.04	1.00	0.96	0.91	0.87	0.82

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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