



Images not to scale. Follow table for dimensions

## APPLICATION

POLY CAB 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 unearthing) 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.

## CHARACTERISTICS

### Voltage Rating

650/1100 V

### Operation Temperature

Max.: 90°C

Short circuit temperature 250°C

## CONSTRUCTION

- Stranded compacted/Non compacted aluminium conductor as per IS 8130, class 1&2
- Insulated with Cross Linked Polyethylene (XLPE) to IS 7098-1
- Extruded inner sheath with PVC Type ST2/FRLS/FR/LSZH
- Sheathed with Extruded PVC Type ST2/FRLS/FR/LSZH

## 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

### Core Identification

Red, Yellow and Blue

### Bending Radius

Fixed installation 12 x Overall diameter

## COMPLIANCE

Conductor resistance - IS 8130:2013

Insulation resistance - IS 7098-1:1988

Flammability test - IEC 60332-1:2015

## OUR ACCREDITATIONS



## APPROVAL



**POLY CAB A2XY MC-3 IS 7098-P1  
POWER CABLE 650/1100 V AC**

**POLY CAB**  
IDEAS. CONNECTED.

**Weight & Dimension Data**

Product code	Nominal cross-sectional area	Class of conductor	Nominal Thickness of Insulation	Nominal thickness of outer sheath	Overall Diameter	Weight (Approx.)
			n x mm <sup>2</sup>	mm	mm	kg/km
LVIS09AXUAY2003C004SA002S	3 x 4	Class 1	0.7	1.8	13	140
LVIS09AXUAY2003C006SA001S	3 x 6	Class 1	0.7	1.8	14.5	170
LVIS09AXUAY2003C010SA001S	3 x 10	Class 1	0.7	1.8	15.5	220
LVIS09AXUAY2003C004SA001S	3 x 4	Class 2	0.7	1.8	13.5	160
LVIS09AXUAY2003C006SA002S	3 x 6	Class 2	0.7	1.8	15	190
LVIS09AXUAY2003C010SA003S	3 x 10	Class 2	0.7	1.8	17	230
LVIS09AXUAY2003C016SA001S	3 x 16	Class 2	0.7	1.8	16.2	304
LVIS09AXUAY2003C025SA001S	3 x 25	Class 2	0.9	2	19.5	446
LVIS09AXUAY2003C035SA001S	3 x 35	Class 2	0.9	2	21.5	551
LVIS09AXUAY2003C050SA001S	3 x 50	Class 2	1	2	24.5	693
LVIS09AXUAY2003C070SA001S	3 x 70	Class 2	1.1	2.2	28	950
LVIS09AXUAY2003C095SA001S	3 x 95	Class 2	1.1	2.2	30.8	1206
LVIS09AXUAY2003C120SA001S	3 x 120	Class 2	1.2	2.2	33.8	1463
LVIS09AXUAY2003C150SA001S	3 x 150	Class 2	1.4	2.4	37.9	1814
LVIS09AXUAY2003C185SA001S	3 x 185	Class 2	1.6	2.6	42	2242
LVIS09AXUAY2003C240SA001S	3 x 240	Class 2	1.7	2.8	46.9	2869
LVIS09AXUAY2003C300SA001S	3 x 300	Class 2	1.8	3	51.5	3505
LVIS09AXUAY2003C400SA001S	3 x 400	Class 2	2	3.2	58.6	4427
LVIS09AXUAY2003C500SA001S	3 x 500	Class 2	2.2	3.6	66	5681
LVIS09AXUAY2003C630SA001S	3 x 630	Class 2	2.4	3.8	72	7125

The above data is approximate & subject to manufacturing tolerance.

**Electrical characteristics**

Nominal area of conductor	Buried direct in the ground	In single way Ducts		In air	Max. DC conductor resistance at 20°C
		mm <sup>2</sup>	Amp.		
4	35	30	32	7.41	
6	46	38	42	4.61	

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Nominal area of conductor mm <sup>2</sup>	Buried direct in the ground	In single way Ducts	In air	Max. DC conductor resistance at 20°C Ω/km
	Amp.	Amp.	Amp.	Ω/km
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,

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

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