



Images not to scale. Follow table for dimensions

## APPLICATION

POLY CAB A2XWY MC-3, Stranded compacted aluminium conductor, XLPE insulated, PVC inner sheathed, Galvanised Steel round wire armour 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 sector shaped 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
- Armoured with Galvanised Steel round wire to IS 3975
- Sheathed with Extruded PVC Type ST2/FRLS/FR/LSZH

### Core Identification

Red, Yellow, 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 3975:1979

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



**Weight & Dimension Data**

Product code	Nominal cross-sectional area	Class of conductor	Nominal Thickness of Insulation	Nominal dimension of Armour round wire	Minimum thickness of outer sheath	Overall Diameter	Weight (Approx.)
	n x mm <sup>2</sup>		mm	mm	mm	mm	kg/km
LVIS09AXSWY2003C004SA002S	3x4	Class 1	0.7	1.4	1.24	15	460
LVIS09AXSWY2003C004SA001S	3x4	Class 2	0.7	1.4	1.24	16	399
LVIS09AXSWY2003C006SA002S	3x6	Class 1	0.7	1.4	1.24	16	530
LVIS09AXSWY2003C006SA001S	3x6	Class 2	0.7	1.4	1.24	17	470
LVIS09AXSWY2003C010SA002S	3x10	Class 1	0.7	1.4	1.24	18	640
LVIS09AXSWY2003C010SA001S	3x10	Class 2	0.7	1.4	1.24	18.5	551
LVIS09AXSWY2003C016SA001S	3x16	Class 2	0.7	1.6	1.4	19	648.4
LVIS09AXSWY2003C025SA001S	3x25	Class 2	0.9	1.6	1.4	21.7	855
LVIS09AXSWY2003C035SA001S	3x35	Class 2	0.9	1.6	1.4	23.6	997
LVIS09AXSWY2003C050SA001S	3x50	Class 2	1	1.6	1.56	26.8	1235
LVIS09AXSWY2003C070SA001S	3x70	Class 2	1.1	2	1.56	30.9	1729
LVIS09AXSWY2003C095SA001S	3x95	Class 2	1.1	2	1.56	33.7	2077
LVIS09AXSWY2003C120SA001S	3x120	Class 2	1.2	2	1.72	37	2422
LVIS09AXSWY2003C150SA001S	3x150	Class 2	1.4	2	1.88	41.1	2888
LVIS09AXSWY2003C185SA001S	3x185	Class 2	1.6	2.5	2.04	46	3733
LVIS09AXSWY2003C240SA001S	3x240	Class 2	1.7	2.5	2.2	50.9	4531
LVIS09AXSWY2003C300SA001S	3x300	Class 2	1.8	2.5	2.36	55.45	5339
LVIS09AXSWY2003C400SA001S	3x400	Class 2	2	3.15	2.68	64	7115
LVIS09AXSWY2003C500SA001S	3x500	Class 2	2.2	3.15	2.84	73	8597
LVIS09AXSWY2003C630SA001S	3x630	Class 2	2.4	4	3	78	11295

The above data is approximate & subject to manufacturing tolerance.

**Electrical characteristics**

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.	
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	0.100
400	420	356	526	0.0778
500	478	412	612	0.0605

Air Ambient temperature: 40°C, Ground ambient temperature: 30°C, Conductor operating temperature: 90°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