



Images not to scale. Follow table for dimensions

## APPLICATION

POLY CAB 2XY MC-2, Stranded compacted copper 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 plain compacted ( $\leq 16$  sqmm)/Non compacted copper 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

### Core Identification

Red 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



# POLYCAT 2XY MC-2 IS 7098-P1 POWER CABLE 650/1100 V AC

**POLYCAT**  
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	mm	kg/km
LVIS09CXUAY2002C004SA001P	2 x 4	Class 1	0.7	1.8	12.5	165
LVIS09CXUAY2002C006SA001S	2 x 6	Class 1	0.7	1.8	13.5	210
LVIS09CXUAY2002C004SA002S	2 x 4	Class 2	0.7	1.8	13	175
LVIS09CXUAY2002C006SA001S	2 x 6	Class 2	0.7	1.8	14	225
LVIS09CXUAY2002C010SA001S	2 x 10	Class 2	0.7	1.8	16	300
LVIS09CXUAY2002C016SA001S	2 x 16	Class 2	0.7	1.8	14	422
LVIS09CXUAY2002C025SA001S	2 x 25	Class 2	0.9	2	17	636
LVIS09CXUAY2002C035SA001S	2 x 35	Class 2	0.9	2	19	817
LVIS09CXUAY2002C050SA001S	2 x 50	Class 2	1	2	21	1054
LVIS09CXUAY2002C070SA001S	2 x 70	Class 2	1.1	2	23	1453
LVIS09CXUAY2002C095SA001S	2 x 95	Class 2	1.1	2.2	26.5	1966
LVIS09CXUAY2002C120SA001S	2 x 120	Class 2	1.2	2.2	28.5	2413
LVIS09CXUAY2002C150SA001S	2 x 150	Class 2	1.4	2.2	32	2935
LVIS09CXUAY2002C185SA001S	2 x 185	Class 2	1.6	2.4	35.5	3676
LVIS09CXUAY2002C240SA001S	2 x 240	Class 2	1.7	2.6	39.5	4750
LVIS09CXUAY2002C300SA001S	2 x 300	Class 2	1.8	2.8	43.5	5918
LVIS09CXUAY2002C400SA001S	2 x 400	Class 2	2	3	49	7495

The above data is approximate & subject to manufacturing tolerance.

## Electrical characteristics

### Current carrying capacity and Maximum DC conductor resistance.

Nominal area of conductor mm <sup>2</sup>	Buried direct in the ground			In air Amp.	Max. DC conductor resistance at 20°C Ω/km
	Amp.	In single way Ducts Amp.	Amp.		
4	54	45	48	4.61	
6	67	56	61	3.08	
10	89	75	83	1.83	
16	115	96	108	1.15	
25	147	122	140	0.727	
35	176	146	172	0.524	
50	208	173	208	0.387	
70	253	211	262	0.268	

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POWER CABLE 650/1100 V AC**

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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.	Amp.	Amp.	Ω/km
95	302	252	322	0.193
120	340	284	368	0.153
150	379	317	419	0.124
185	425	357	482	0.0991
240	486	409	566	0.0754
300	541	456	644	0.0601
400	602	508	734	0.047
500	665	562	831	0.0366
630	728	616	936	0.0283

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