



Images not to scale. Follow table for dimensions

#### APPLICATION

POLY CAB 2XFY MC-3.5, Stranded compacted copper conductor, XLPE insulated, PVC inner sheathed, Galvanised Steel Flat strip 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 plain compacted sector shaped copper conductor as per IS 8130, class 2
- Insulated with Cross Linked Polyethylene (XLPE) to IS 7098-1
- Extruded inner sheath with PVC Type ST2/FRLS/FR/LSZH
- Armoured with Galvanised Flat Steel Strip to IS 3975
- Sheathed with Extruded PVC Type ST2/FRLS/FR/LSZH

#### Core Identification

Red, Yellow, Blue 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 3975:1979

IS 7098-1:1988

#### COMPLIANCE

Conductor resistance  
Insulation resistance  
Flammability test

- IS 8130:2013
- IS 7098-1:1988
- IEC 60332-1:2015

#### OUR ACCREDITATIONS



#### APPROVAL



#### NOTES

- Other color also available on request.
- Cable available with anti-rodent & termite

**POLY CAB 2XFY MC-3.5 IS 7098-P1  
POWER CABLE 650/1100V AC**

**POLY CAB**  
IDEAS. CONNECTED.

**Weight & Dimension Data**

Product code	Nominal cross-sectional area	Nominal Thickness of Insulation Main/Neutral	Nominal dimension of Armour flat wire	Minimum thickness of outer sheath	Overall Diameter	Weight (Approx.)
	n x mm <sup>2</sup>	mm	mm	mm	mm	kg/km
LVIS09CXSFY23.5C025SA001S	3.5 x25	0.9/0.7	4x0.8	1.4	21.9	1272
LVIS09CXSFY23.5C035SA001S	3.5 x35	0.9/0.7	4x0.8	1.4	24.2	1586
LVIS09CXSFY23.5C050SA001S	3.5 x50	1/0.9	4x0.8	1.4	27.4	2061
LVIS09CXSFY23.5C070SA001S	3.5 x70	1.1/0.9	4x0.8	1.56	31.5	2831
LVIS09CXSFY23.5C095SA001S	3.5 x95	1.1/1	4x0.8	1.56	34.8	3686
LVIS09CXSFY23.5C120SA001S	3.5 x120	1.2/1.1	4x0.8	1.72	38.5	4617
LVIS09CXSFY23.5C150SA001S	3.5 x150	1.4/1.1	4x0.8	1.72	42.7	5481
LVIS09CXSFY23.5C185SA001S	3.5 x185	1.6/1.1	4x0.8	1.88	47.2	6830
LVIS09CXSFY23.5C240SA001S	3.5 x240	1.7/1.2	4x0.8	2.04	52.7	8711
LVIS09CXSFY23.5C300SA001S	3.5 x300	1.8/1.4	4x0.8	2.2	57.9	10716
LVIS09CXSFY23.5C400SA001S	3.5 x400	2/1.6	4x0.8	2.52	65.5	13556

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.	Amp.	Ω/km
16	95	79	89	1.15
25	122	102	119	0.727
35	146	122	147	0.524
50	173	144	179	0.387
70	212	177	226	0.268
95	254	212	279	0.193
120	287	240	320	0.153
150	321	269	365	0.124
185	362	304	422	0.0991
240	418	352	500	0.0754
300	469	396	574	0.0601
400	528	447	662	0.047

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