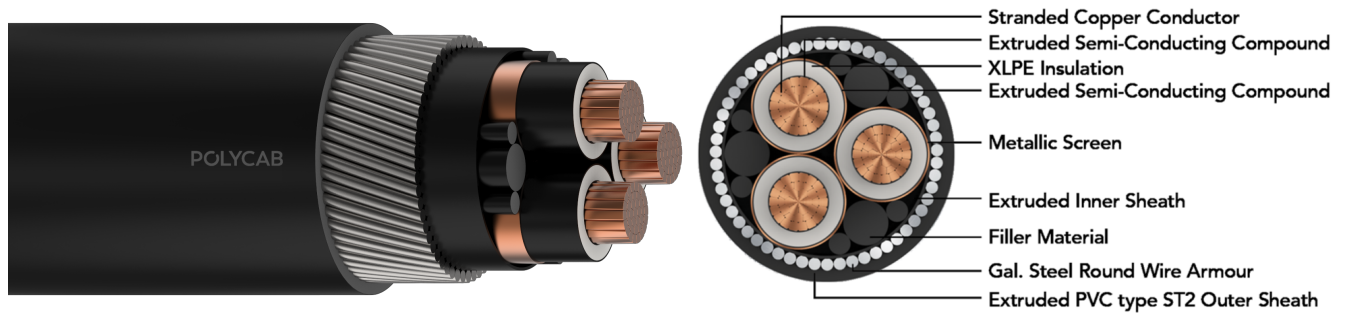


POLYCAB MV MC CU IS 7098-2 1.9/3.3 KV(E) Medium Voltage Multi Core Copper Armoured Cable, 1.9/3.3 KV (E) AC



Images not to scale. Follow table for dimensions

APPLICATION

POLYCAB MV 1.9/3.3 KV(E) XLPE insulated with copper conductor single core cable is suitable to use for power distribution for external and direct burial applications in power network system.

CHARACTERISTICS

Voltage Rating

Nominal Voltage: 1.9/3.3 KV (E)

Operation Temperature

Max. operating temperature: +90°C

Max. Short Circuit Temperature: 250°C

Bending Radius:

Fixed Installation: 15D

D is overall diameter of cable

CONSTRUCTION

- Conductor: Circular Compacted Copper conductor as per IS 8130, class 2
- Conductor Screen: Extruded Semi-conductive compound
- Insulation: XLPE
- Non-Metallic Insulation Screen: Extruded Semi-conductive compound
- Metallic Insulation Screen: Copper tape screen
- Inner Sheath: Extruded Polyvinyl Chloride
- Armour: Galvanised steel Round/Flat Wire Armoured
- Outer Sheath: Extruded Polyvinyl Chloride

Colour: Black

OUTSTANDING FEATURES

- Flame retardant
- High life
- UV resistant

STANDARD FOLLOWS

IS 8130:2013

IS 5831:1984

IS 3975:1979

IS 7098-2:2011

COMPLIANCE

- Conductor resistance IS 8130
- Insulation resistance IS 7098-2
- Flammability test IEC 60332-1-2
- Partial Discharge test IS 7098-2

OUR ACCREDITATIONS



APPROVAL



NOTES

- Inner sheath available with FR/ FRLS
- Outer/ Inner available with FR/FRLS

Test Voltage

10kV AC 50 Hz

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DIMENSIONS AND WEIGHTS:

Product Code	No. of Cores	Core Cross sectional Area	Nominal Diameter			Weight (Approx.)
			Under armour	Over armour	Overall	
2XWY	No.	mm ²	mm	mm	mm	Kg/Km
MVIS10CXSWY2003C025SA001S	3C	25	27.0	31.0	34.2	2455
MVIS10CXSWY2003C035SA001S	3C	35	29.5	33.5	36.6	2904
MVIS10CXSWY2003C050SA001S	3C	50	32.8	36.8	40.3	3601
MVIS10CXSWY2003C070SA001S	3C	70	36.5	40.5	44.2	4451
MVIS10CXSWY2003C095SA001S	3C	95	40.3	45.3	49.4	5862
MVIS10CXSWY2003C120SA001S	3C	120	43.7	48.7	52.8	6838
MVIS10CXSWY2003C150SA001S	3C	150	47.6	52.6	57.0	8114
MVIS10CXSWY2003C185SA001S	3C	185	51.2	56.2	61.0	9431
MVIS10CXSWY2003C240SA001S	3C	240	56.8	63.1	68.1	12276
MVIS10CXSWY2003C300SA001S	3C	300	62.2	68.5	73.8	14655
MVIS10CXSWY2003C400SA001S	3C	400	69.1	75.4	81.4	18123
MVIS10CXSWY2003C500SA001S	3C	500	77.1	85.1	91.1	23406
MVIS10CXSWY2003C630SA001S	3C	630	85.2	93.2	99.2	27955

Product Code	No. of Cores	Core Cross sectional Area	Nominal Diameter			Weight (Approx.)
			Under armour	Over armour	Overall	
2XFY	No.	mm ²	mm	mm	mm	Kg/Km
MVIS10CXSFY2003C025SA001S	3C	25	27.0	28.6	31.8	1827
MVIS10CXSFY2003C035SA001S	3C	35	29.5	31.1	34.2	2216
MVIS10CXSFY2003C050SA001S	3C	50	32.8	34.4	37.6	2796
MVIS10CXSFY2003C070SA001S	3C	70	36.5	38.1	41.5	3551
MVIS10CXSFY2003C095SA001S	3C	95	40.3	41.9	45.7	4480
MVIS10CXSFY2003C120SA001S	3C	120	43.7	45.3	49.4	5395
MVIS10CXSFY2003C150SA001S	3C	150	47.6	49.2	53.3	6492
MVIS10CXSFY2003C185SA001S	3C	185	51.2	52.8	57.2	7667
MVIS10CXSFY2003C240SA001S	3C	240	56.8	58.4	63.1	9596
MVIS10CXSFY2003C300SA001S	3C	300	62.2	63.8	68.8	11737

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Product Code	No. of Cores	Core Cross sectional Area	Nominal Diameter			Weight (Approx.)
			Under armour	Over armour	Overall	
2XFY	No.	mm ²	mm	mm	mm	Kg/Km
MVIS10CXSFY2003C400SA001S	3C	400	69.1	70.7	76.4	14878
MVIS10CXSFY2003C500SA001S	3C	500	77.1	78.7	84.7	18533
MVIS10CXSFY2003C630SA001S	3C	630	85.2	86.8	92.8	22603

The above data is approximate & subject to manufacturing tolerance.

ELECTRICAL CHARACTERISTICS:

No. of Cores	Core Cross sectional Area	Max. DC Resistance at 20°C	Max. AC Resistance at 90°C	Approx. Capacitance	Approx. Inductance		Approx. Reactance	
					mH/km		Ω/km	
No.	mm ²	Ω/km	Ω/km	μF/km	2XFY	2XWY	2XFY	2XWY
3	25	0.727	0.932	0.24	0.33	0.33	0.103	0.103
3	35	0.524	0.672	0.27	0.31	0.31	0.099	0.099
3	50	0.387	0.496	0.32	0.29	0.29	0.091	0.091
3	70	0.268	0.344	0.36	0.28	0.28	0.088	0.088
3	95	0.193	0.248	0.41	0.27	0.27	0.084	0.084
3	120	0.153	0.197	0.46	0.26	0.26	0.081	0.081
3	150	0.124	0.159	0.51	0.25	0.25	0.079	0.079
3	185	0.0991	0.128	0.55	0.25	0.25	0.078	0.078
3	240	0.0754	0.098	0.62	0.24	0.24	0.075	0.075
3	300	0.0601	0.078	0.69	0.24	0.24	0.074	0.074
3	400	0.047	0.062	0.78	0.23	0.23	0.072	0.072
3	500	0.0366	0.049	0.81	0.23	0.23	0.072	0.072
3	630	0.0283	0.038	0.84	0.23	0.23	0.071	0.071

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CURRENT CARRYING CAPACITY:

Nominal area of conductor	Buried direct in ground	In a buried duct	In air
Sqmm	A	A	A
25	121	104	132
35	144	124	159
50	169	146	188
70	206	178	234
95	246	212	284
120	278	240	326
150	310	268	368
185	350	302	422
240	401	353	492
300	449	395	559
400	506	445	642
500	565	497	730

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 7):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