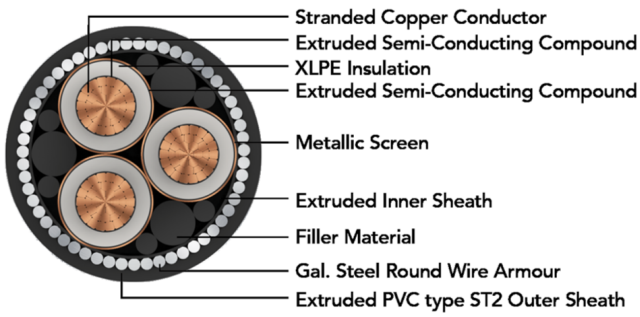
POLYCAB MV MC CU IS 7098-2, 3.8/6.6 KV(E)

Medium Voltage Multi Core Copper Armoured Cable, 3.8/6.6 KV (E) AC



Images not to scale. Follow table for dimensions

APPLICATION

POLYCAB MV 3.8/6.6 KV(E) XLPE insulated with copper conductor multi core cable is suitable to use for power distribution for external and direct burial applications in power network system.

CHARACTERISTICS

Voltage Rating
Nominal Voltage: 3.8/6.6 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
13kV AC 50 Hz

Impulse voltage test
60 kV

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DIMENSIONS AND WEIGHTS:

Product Code	No. of Cores	Core Cross sectional Area	Nominal Diameter			Weight
			Under armour	Over armour	Overall	(Approx.)
2XWY	No.	mm^2	mm	mm	mm	Kg/Km
MVIS15CXSWY2003C025SA001S	3C	25	29.6	33.6	36.7	2683
MVIS15CXSWY2003C035SA001S	3C	35	32.1	36.1	39.5	3171
MVIS15CXSWY2003C050SA001S	3C	50	35.4	39.4	42.9	3851
MVIS15CXSWY2003C070SA001S	3C	70	39.1	43.1	46.8	4716
MVIS15CXSWY2003C095SA001S	3C	95	42.9	47.9	52.0	6161
MVIS15CXSWY2003C120SA001S	3C	120	46.5	51.5	55.9	7256
MVIS15CXSWY2003C150SA001S	3C	150	50.2	55.2	60.0	8528
MVIS15CXSWY2003C185SA001S	3C	185	53.8	58.8	63.5	9773
MVIS15CXSWY2003C240SA001S	3C	240	59.4	65.7	71.0	12765
MVIS15CXSWY2003C300SA001S	3C	300	65.6	71.9	77.6	15324
MVIS15CXSWY2003C400SA001S	3C	400	73.8	81.8	87.8	20183
MVIS15CXSWY2003C500SA001S	3C	500	81.8	89.8	95.8	24411
MVIS15CXSWY2003C630SA001S	3C	630	89.1	97.1	103.1	28792

Product Code	No. of Cores	Core Cross sectional Area	Nominal Diameter			Weight
			Under armour	Over armour	Overall	(Approx.)
2XFY	No.	mm^2	mm	mm	mm	Kg/Km
MVIS15CXSFY2003C025SA001S	3C	25	29.6	31.2	34.3	1995
MVIS15CXSFY2003C035SA001S	3C	35	32.1	33.7	36.8	2392
MVIS15CXSFY2003C050SA001S	3C	50	35.4	37.0	40.5	3016
MVIS15CXSFY2003C070SA001S	3C	70	39.1	40.7	44.4	3789
MVIS15CXSFY2003C095SA001S	3C	95	42.9	44.5	48.3	4699
MVIS15CXSFY2003C120SA001S	3C	120	46.5	48.1	52.2	5653
MVIS15CXSFY2003C150SA001S	3C	150	50.2	51.8	56.2	6784
MVIS15CXSFY2003C185SA001S	3C	185	53.8	55.4	60.1	7977
MVIS15CXSFY2003C240SA001S	3C	240	59.4	61.0	66.0	9933
MVIS15CXSFY2003C300SA001S	3C	300	65.6	67.2	72.6	12211

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Product Code	No. of Cores	Core Cross sectional Area	Nominal Diameter			Weight
			Under armour	Over armour	Overall	(Approx.)
2XFY	No.	mm^2	mm	mm	mm	Kg/Km
MVIS15CXSFY2003C400SA001S	3C	400	73.8	75.4	81.4	15550
MVIS15CXSFY2003C500SA001S	3C	500	81.8	83.4	89.4	19218
MVIS15CXSFY2003C630SA001S	3C	630	89.1	90.7	96.7	23199

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	
No.	mm^2	Ω/km	Ω/km	µF/km	mH/km		Ω/km	
					2XFY	2XWY	2XFY	2XWY
3	25	0.727	0.932	0.21	0.35	0.35	0.109	0.109
3	35	0.524	0.672	0.23	0.33	0.33	0.104	0.104
3	50	0.387	0.496	0.27	0.31	0.31	0.096	0.096
3	70	0.268	0.344	0.30	0.29	0.29	0.092	0.092
3	95	0.193	0.248	0.35	0.28	0.28	0.089	0.089
3	120	0.153	0.197	0.38	0.27	0.27	0.085	0.085
3	150	0.124	0.159	0.42	0.26	0.26	0.083	0.083
3	185	0.0991	0.128	0.46	0.26	0.26	0.081	0.081
3	240	0.0754	0.098	0.51	0.25	0.25	0.078	0.078
3	300	0.0601	0.078	0.54	0.25	0.25	0.077	0.077
3	400	0.047	0.062	0.56	0.24	0.24	0.077	0.077
3	500	0.0366	0.049	0.60	0.24	0.24	0.076	0.076
3	630	0.0283	0.038	0.66	0.24	0.24	0.074	0.074

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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