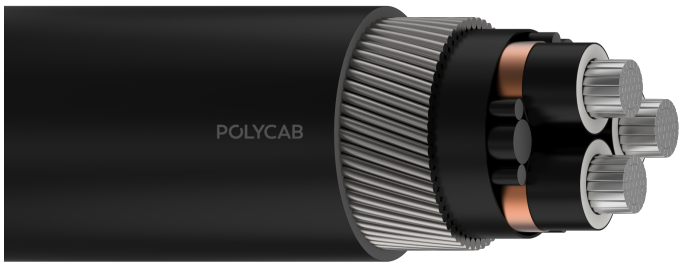
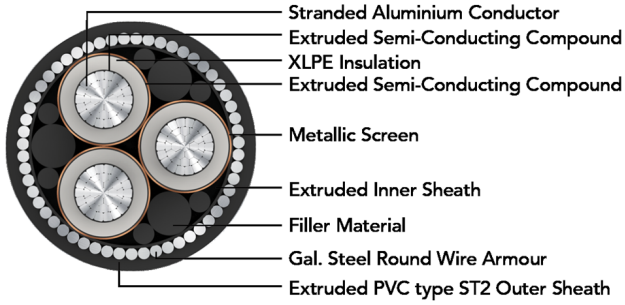
POLYCAB MV MC AL IS 7098-2, 3.3/3.3 KV(UE)
Medium Voltage Multi Core Aluminium Armoured Cable, 3.3/3.3 KV (UE)





Images not to scale. Follow table for dimensions

APPLICATION

POLYCAB MV 3.3/3.3 KV(UE) XLPE insulated with aluminium 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: 3.3/3.3 KV (UE)

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 Aluminium 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

Test Voltage
10kV AC 50 Hz

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

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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.)
A2XWY	No.	mm^2	mm	mm	mm	Kg/Km
MVIS14AXSWY2003C025SA001S	3C	25	27.0	31.0	34.2	1979
MVIS14AXSWY2003C035SA001S	3C	35	29.5	33.5	36.6	2243
MVIS14AXSWY2003C050SA001S	3C	50	32.8	36.8	40.3	2644
MVIS14AXSWY2003C070SA001S	3C	70	36.5	40.5	44.2	3132
MVIS14AXSWY2003C095SA001S	3C	95	40.3	45.3	49.4	4068
MVIS14AXSWY2003C120SA001S	3C	120	43.7	48.7	52.8	4570
MVIS14AXSWY2003C150SA001S	3C	150	47.6	52.6	57.0	5254
MVIS14AXSWY2003C185SA001S	3C	185	51.2	56.2	61.0	5937
MVIS14AXSWY2003C240SA001S	3C	240	56.8	63.1	68.1	7725
MVIS14AXSWY2003C300SA001S	3C	300	62.2	68.5	73.8	8895
MVIS14AXSWY2003C400SA001S	3C	400	69.1	75.4	81.4	10599
MVIS14AXSWY2003C500SA001S	3C	500	77.1	85.1	91.1	13825
MVIS14AXSWY2003C630SA001S	3C	630	85.2	93.2	99.2	16020

Product Code	No. of Cores	Core Cross sectional Area	Nominal Diameter			Weight
			Under armour	Over armour	Overall	(Approx.)
A2XFY	No.	mm^2	mm	mm	mm	Kg/Km
MVIS14AXSFY2003C025SA001S	3C	25	27.0	28.6	31.8	1351
MVIS14AXSFY2003C035SA001S	3C	35	29.5	31.1	34.2	1555
MVIS14AXSFY2003C050SA001S	3C	50	32.8	34.4	37.6	1840
MVIS14AXSFY2003C070SA001S	3C	70	36.5	38.1	41.5	2233
MVIS14AXSFY2003C095SA001S	3C	95	40.3	41.9	45.7	2686
MVIS14AXSFY2003C120SA001S	3C	120	43.7	45.3	49.4	3127
MVIS14AXSFY2003C150SA001S	3C	150	47.6	49.2	53.3	3632
MVIS14AXSFY2003C185SA001S	3C	185	51.2	52.8	57.2	4174
MVIS14AXSFY2003C240SA001S	3C	240	56.8	58.4	63.1	5045
MVIS14AXSFY2003C300SA001S	3C	300	62.2	63.8	68.8	5977

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Product Code	No. of Cores	Core Cross sectional Area	Nominal Diameter			Weight
			Under armour	Over armour	Overall	(Approx.)
A2XFY	No.	mm^2	mm	mm	mm	Kg/Km
MVIS14AXSFY2003C400SA001S	3C	400	69.1	70.7	76.4	7354
MVIS14AXSFY2003C500SA001S	3C	500	77.1	78.7	84.7	8953
MVIS14AXSFY2003C630SA001S	3C	630	85.2	86.8	92.8	10667

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	A2XFY	A2XWY	A2XFY	A2XWY
3	25	1.2	1.539	0.24	0.32	0.33	0.101	0.103
3	35	0.868	1.113	0.27	0.31	0.31	0.099	0.099
3	50	0.641	0.822	0.32	0.29	0.29	0.091	0.091
3	70	0.443	0.568	0.36	0.28	0.28	0.088	0.088
3	95	0.32	0.410	0.41	0.27	0.27	0.084	0.084
3	120	0.253	0.325	0.46	0.26	0.26	0.081	0.081
3	150	0.206	0.264	0.51	0.25	0.25	0.079	0.079
3	185	0.164	0.211	0.55	0.25	0.25	0.078	0.078
3	240	0.125	0.161	0.62	0.24	0.24	0.075	0.075
3	300	0.1	0.129	0.69	0.24	0.24	0.074	0.074
3	400	0.0778	0.101	0.78	0.23	0.23	0.072	0.072
3	500	0.0605	0.079	0.81	0.23	0.23	0.072	0.072
3	630	0.0469	0.061	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	94	81	102
35	112	96	123
50	131	113	146
70	160	138	182
95	191	165	221
120	216	187	254
150	241	208	286
185	273	236	330
240	315	277	385
300	354	312	440
400	403	355	512
500	457	403	590

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