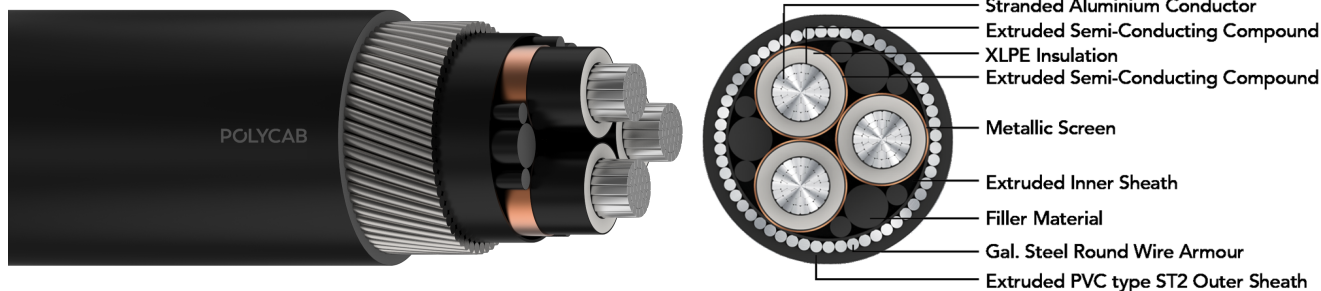


# POLYCAB MV MC AL IS 7098-2, 6.35/11 KV(E)

## Medium Voltage Multi Core Aluminium Armoured Cable, 6.35/11 KV (E)



Images not to scale. Follow table for dimensions

### APPLICATION

POLYCAB MV 6.35/11 KV(E) XLPE insulated with aluminium 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: 6.35/11 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 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

21kV AC 50 Hz

#### Impulse test Voltage

75 KV

### 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 (Approx.)
			Under armour	Over armour	Overall	
A2XWY	No.	mm <sup>2</sup>	mm	mm	mm	Kg/Km
MVIS17AXSWY2003C025SA001S	3C	25	33.1	37.1	40.5	2547
MVIS17AXSWY2003C035SA001S	3C	35	35.6	39.6	43.0	2834
MVIS17AXSWY2003C050SA001S	3C	50	39.1	43.1	46.8	3316
MVIS17AXSWY2003C070SA001S	3C	70	42.5	47.5	51.6	4228
MVIS17AXSWY2003C095SA001S	3C	95	46.6	51.6	56.0	4887
MVIS17AXSWY2003C120SA001S	3C	120	49.9	54.9	59.3	5422
MVIS17AXSWY2003C150SA001S	3C	150	53.7	58.7	63.4	6121
MVIS17AXSWY2003C185SA001S	3C	185	57.5	63.8	68.8	7611
MVIS17AXSWY2003C240SA001S	3C	240	62.8	69.1	74.5	8747
MVIS17AXSWY2003C300SA001S	3C	300	68.2	74.5	80.2	10033
MVIS17AXSWY2003C400SA001S	3C	400	75.1	83.1	89.1	13016
MVIS17AXSWY2003C500SA001S	3C	500	82.2	90.2	96.2	14887
MVIS17AXSWY2003C630SA001S	3C	630	89.5	97.5	103.5	17017

Product Code	No. of Cores	Core Cross sectional Area	Nominal Diameter			Weight (Approx.)
			Under armour	Over armour	Overall	
A2XFY	No.	mm <sup>2</sup>	mm	mm	mm	Kg/Km
MVIS17AXSFY2003C025SA001S	3C	25	33.1	34.7	37.8	1742
MVIS17AXSFY2003C035SA001S	3C	35	35.6	37.2	40.6	1999
MVIS17AXSFY2003C050SA001S	3C	50	39.1	40.7	44.4	2389
MVIS17AXSFY2003C070SA001S	3C	70	42.5	44.1	47.9	2767
MVIS17AXSFY2003C095SA001S	3C	95	46.6	48.2	52.3	3284
MVIS17AXSFY2003C120SA001S	3C	120	49.9	51.5	55.9	3764
MVIS17AXSFY2003C150SA001S	3C	150	53.7	55.3	60.0	4325
MVIS17AXSFY2003C185SA001S	3C	185	57.5	59.1	63.8	4888
MVIS17AXSFY2003C240SA001S	3C	240	62.8	64.4	69.5	5786
MVIS17AXSFY2003C300SA001S	3C	300	68.2	69.8	75.2	6772
MVIS17AXSFY2003C400SA001S	3C	400	75.1	76.7	82.7	8223
MVIS17AXSFY2003C500SA001S	3C	500	82.2	83.8	89.8	9694
MVIS17AXSFY2003C630SA001S	3C	630	89.5	91.1	97.1	11344

The above data is approximate & subject to manufacturing tolerance.

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### 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 <sup>2</sup>	Ω/km	Ω/km	μF/km	mH/km		Ω/km	
					A2XFY	A2XWY	A2XFY	A2XWY
3	25	1.2	1.539	0.18	0.37	0.37	0.116	0.116
3	35	0.868	1.113	0.20	0.35	0.35	0.111	0.111
3	50	0.641	0.822	0.23	0.33	0.33	0.102	0.102
3	70	0.443	0.568	0.25	0.31	0.31	0.098	0.098
3	95	0.32	0.410	0.29	0.30	0.30	0.093	0.093
3	120	0.253	0.325	0.32	0.29	0.29	0.090	0.090
3	150	0.206	0.264	0.35	0.28	0.28	0.087	0.087
3	185	0.164	0.211	0.38	0.27	0.27	0.085	0.085
3	240	0.125	0.161	0.42	0.26	0.26	0.082	0.082
3	300	0.1	0.129	0.47	0.25	0.25	0.080	0.080
3	400	0.0778	0.101	0.52	0.25	0.25	0.078	0.078
3	500	0.0605	0.079	0.58	0.24	0.24	0.076	0.076
3	630	0.0469	0.061	0.64	0.24	0.24	0.074	0.074

### CURRENT CARRYING CAPACITY:

Nominal area of conductor	Buried direct in ground	In a buried duct	In air
Sqmm	A	A	A
25	94	81	103
35	112	97	124
50	131	114	148
70	161	139	184
95	190	165	222
120	216	188	256
150	242	209	288
185	273	240	330
240	315	278	387
300	354	312	441
400	404	356	512
500	457	403	590

# POLYCAB MV MC AL IS 7098-2, 6.35/11 KV(E)

## Medium Voltage Multi Core Aluminium Armoured Cable, 6.35/11 KV (E)

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 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

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