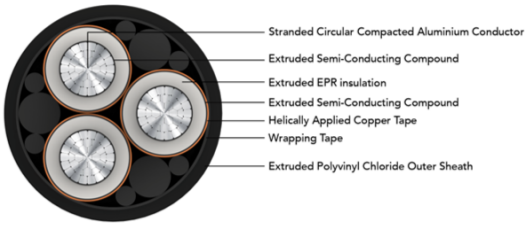
POLYCAB MV MC SCR ICEA S-93-639 25KV
MV Cable with Aluminium Conductor, EPR Insulation and Copper Screen



Images not to scale. Follow table for dimensions

APPLICATION

POLYCAB MV 25KV EPR insulated with Aluminium conductor Three core cable is suitable to use in conduits, ducts, troughs, trays, direct burial in wet and dry conditions for power supply to wide networks.

CHARACTERISTICS

Voltage Rating
Nominal Voltage: 25kV AC

Operation Temperature
Operating temperature: -35°C to +105°C
Emergency operating temperature: 140°C
Max. Short Circuit Temperature: 250°C

CONSTRUCTION

- Conductor: Circular Compacted Aluminium conductor as per ASTM B496
- Conductor Screen: Extruded Semi-conductive compound
- Insulation: Extruded EPR (TR-XLPE will be provided on demand)
- Insulation Screen: Extruded Semi-conductive compound
- Metallic Insulation Screen: Helically applied copper tape

(Round / Corrugated copper screen will be provided on demand)

- Cores assembled together along with fillers (and ground wire optional)
- Binder: Wrapping tape
- (Armour will be provided on demand)
- Outer Sheath: Extruded Polyvinyl Chloride, Colour: Black

(Alternative Sheath: CPE Outer Sheath or LSZH Outer sheath, and parameters will change accordingly)

Bending Radius: 7D
D is overall diameter of cable

OUTSTANDING FEATURES

- Flame retardant
- High life
- Sunlight resistant
- Oil, Acid and Alkalies resistant
- Corona resistant
- Treeing resistant
- Moisture resistant

STANDARD FOLLOWS

ASTM B496
ICEA S-93-639 (NEMA WC-74)
UL 1072
UL 1685 / FT-1
IEEE 1202
UL 2556

COMPLIANCE

• Conductor resistance	ICEA S-93-639
• Insulation resistance	ICEA S-93-639
• Vertical Tray Flame	UL 1685
• Smoke Release	UL 1685
• Flame Test	IEEE 1202

OUR ACCREDITATIONS

APPROVAL

NOTES

Voltage Rating (kV AC)	High Voltage Test (kV AC)	
	100% level	133% level
25	52	64

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DIMENSIONS, WEIGHT AND AMPACITY:

133% insulation:

Product Code	No. of Cores	Core Cross sectional Area	Nominal Diameter			Weight	Current rating *	
			Under metallic screen	Over metallic screen	Overall	(Approx.)	Directly buried in ground	In air
	No.	AWG / MCM	mm	mm	mm	Kg/Km	Amps	
MVIC32ARUAYF001C002AA001P	3	2 AWG	25.5	26.0	62.0	3550	105	120
MVIC32ARUAYF001C001AA001P	3	1 AWG	26.3	26.9	63.5	3750	115	140
MVIC32ARUAYF001C1X0AA001P	3	1/0 AWG	27.3	27.8	65.5	4000	140	165
MVIC32ARUAYF001C2X0AA001P	3	2/0 AWG	28.3	28.8	68.0	4350	155	190
MVIC32ARUAYF001C3X0AA001P	3	3/0 AWG	29.5	30.0	70.5	4650	175	215
MVIC32ARUAYF001C4X0AA001P	3	4/0 AWG	30.8	31.3	74.5	5250	210	250
MVIC32ARUAYF001C250CA001P	3	250 MCM	32.1	32.6	77.5	5650	230	280
MVIC32ARUAYF001C350CA001P	3	350 MCM	34.5	35.1	82.5	6550	265	355
MVIC32ARUAYF001C500CA001P	3	500 MCM	37.6	38.1	89.0	7750	355	430
MVIC32ARUAYF001C600CA001P	3	600 MCM	40.2	40.7	94.5	8750	390	485
MVIC32ARUAYF001C750CA001P	3	750 MCM	42.6	43.1	100.0	9800	440	555
MVIC32ARUAYF001C01KCA001P	3	1000 MCM	46.1	46.6	107.5	11450	505	665

100% insulation:

Product Code	No. of Cores	Core Cross sectional Area	Nominal Diameter			Weight	Current rating *	
			Under metallic screen	Over metallic screen	Overall	(Approx.)	Directly buried in ground	In air
	No.	AWG / MCM	mm	mm	mm	Kg/Km	Amps	
MVIC32ARUAYF001C002AA002P	3	2 AWG	22.5	23.0	55.0	2950	105	120
MVIC32ARUAYF001C001AA002P	3	1 AWG	23.3	23.8	57.0	3150	115	140
MVIC32ARUAYF001C1X0AA002P	3	1/0 AWG	24.2	24.7	59.0	3350	140	165
MVIC32ARUAYF001C2X0AA002P	3	2/0 AWG	25.3	25.8	61.5	3700	155	190
MVIC32ARUAYF001C3X0AA002P	3	3/0 AWG	26.5	27.0	64.0	4000	175	215
MVIC32ARUAYF001C4X0AA002P	3	4/0 AWG	27.8	28.3	66.5	4400	210	250
MVIC32ARUAYF001C250CA002P	3	250 MCM	29.1	29.6	69.5	4750	230	280
MVIC32ARUAYF001C350CA002P	3	350 MCM	31.5	32.0	76.0	5750	265	355
MVIC32ARUAYF001C500CA002P	3	500 MCM	34.5	35.0	82.5	6900	355	430
MVIC32ARUAYF001C600CA002P	3	600 MCM	36.5	37.1	87.0	7750	390	485
MVIC32ARUAYF001C750CA002P	3	750 MCM	39.0	39.5	92.0	8750	440	555
MVIC32ARUAYF001C01KCA002P	3	1000 MCM	42.5	43.0	99.5	10300	505	665

* Current Rating is based on Table 310.16 (20°C Ambient Ground Temperature) and Table 310.17 (30°C Ambient Air Temperature) of National Electric Code

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POLYCAB
IDEAS. CONNECTED.

ELECTRICAL CHARACTERISTICS:

133% insulation:

No. of Cores	Core Cross sectional Area	Nom. DC Resistance at 25°C	Nom. AC Resistance at 90°C	Approx. Capacitance	Approx. Inductance	Approx. Reactance	Max. pulling tension on conductor	Charging Current per phase	Positive sequence impedance	Electric Stress at Conductor Screen	Short circuit rating	
											Phase conductor	Metallic screen
No.	AWG / MCM	Ω/km	Ω/km	µF/km	mH/km	Ω/km	kN	Amps/Km	Ohms/Km	kV/mm	kA/S	
1	2 AWG	0.531	0.666	0.15	0.47	0.18	2.4	1.39	1.11	5.8	3.0	3.3
1	1 AWG	0.423	0.528	0.16	0.45	0.17	3.0	1.48	0.89	5.6	3.8	3.4
1	1/0 AWG	0.335	0.420	0.17	0.44	0.17	3.7	1.57	0.71	5.3	4.8	3.5
1	2/0 AWG	0.266	0.331	0.18	0.41	0.16	4.7	1.68	0.57	5.1	6.0	3.6
1	3/0 AWG	0.211	0.266	0.19	0.40	0.15	6.0	1.81	0.46	4.9	7.6	3.8
1	4/0 AWG	0.167	0.210	0.21	0.38	0.15	7.5	1.94	0.38	4.7	9.6	3.9
1	250 MCM	0.141	0.177	0.22	0.38	0.14	8.9	2.07	0.33	4.5	11.3	4.1
1	350 MCM	0.101	0.128	0.25	0.35	0.13	12.4	2.32	0.25	4.3	15.9	4.4
1	500 MCM	0.071	0.092	0.28	0.33	0.13	17.7	2.62	0.19	4.1	22.6	4.8
1	600 MCM	0.059	0.076	0.31	0.33	0.12	21.3	2.88	0.18	3.8	27.2	5.1
1	750 MCM	0.047	0.066	0.33	0.32	0.12	26.6	3.11	0.16	3.7	34.0	5.4
1	1000 MCM	0.035	0.052	0.37	0.30	0.11	35.4	3.46	0.14	3.6	45.3	5.9

100% insulation:

No. of Cores	Core Cross sectional Area	Nom. DC Resistance at 25°C	Nom. AC Resistance at 90°C	Approx. Capacitance	Approx. Inductance	Approx. Reactance	Max. pulling tension on conductor	Charging Current per phase	Positive sequence impedance	Electric Stress at Conductor Screen	Short circuit rating	
											Phase conductor	Metallic screen
No.	AWG / MCM	Ω/km	Ω/km	µF/km	mH/km	Ω/km	kN	Amps/Km	Ohms/Km	kV/mm	kA/S	
1	2 AWG	0.531	0.666	0.17	0.45	0.17	2.4	1.58	1.11	6.5	3.0	2.9
1	1 AWG	0.423	0.528	0.18	0.43	0.16	3.0	1.68	0.89	6.2	3.8	3.0
1	1/0 AWG	0.335	0.420	0.19	0.42	0.16	3.7	1.80	0.71	6.0	4.8	3.1
1	2/0 AWG	0.266	0.331	0.21	0.39	0.15	4.7	1.94	0.57	5.7	6.0	3.2
1	3/0 AWG	0.211	0.266	0.22	0.38	0.14	6.0	2.08	0.46	5.5	7.6	3.4
1	4/0 AWG	0.167	0.210	0.24	0.36	0.14	7.5	2.25	0.37	5.3	9.6	3.6
1	250 MCM	0.141	0.177	0.26	0.36	0.13	8.9	2.41	0.32	5.1	11.3	3.7
1	350 MCM	0.101	0.128	0.29	0.34	0.13	12.4	2.70	0.25	4.9	15.9	4.0
1	500 MCM	0.071	0.092	0.33	0.32	0.12	17.7	3.07	0.19	4.7	22.6	4.4

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No. of Cores	Core Cross sectional Area	Nom. DC Resistance at 25°C	Nom. AC Resistance at 90°C	Approx. Capacitance	Approx. Inductance	Approx. Reactance	Max. pulling tension on conductor	Charging Current per phase	Positive sequence impedance	Electric Stress at Conductor Screen	Short circuit rating	
											Phase conductor	Metallic screen
No.	AWG / MCM	Ω/km	Ω/km	µF/km	mH/km	Ω/km	kN	Amps/Km	Ohms/Km	kV/mm	kA/S	
1	600 MCM	0.059	0.076	0.35	0.31	0.12	21.3	3.32	0.17	4.5	27.2	4.7
1	750 MCM	0.047	0.066	0.38	0.30	0.11	26.6	3.61	0.15	4.4	34.0	5.0
1	1000 MCM	0.035	0.052	0.43	0.29	0.11	35.4	4.03	0.13	4.3	45.3	5.4