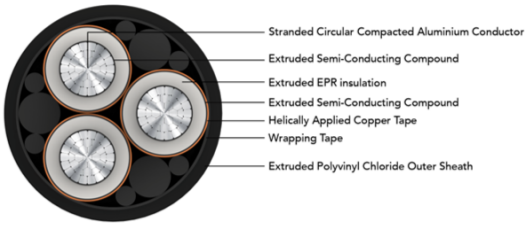
POLYCAB MV MC SCR ICEA S-93-639 15KV
MV Cable with Aluminium Conductor, EPR Insulation and Copper Screen



Images not to scale. Follow table for dimensions

APPLICATION

POLYCAB MV 15KV 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: 15kV 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)		Min. Partial discharge test (kV AC)	
	100% level	133% level	100% level	133% level
15	35	44	11	15

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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	
MVIC37ARUAYF003C002AA001P	3	2 AWG	20.4	20.9	51.0	2600	105	120
MVIC37ARUAYF003C001AA001P	3	1 AWG	21.3	21.8	52.5	2750	115	140
MVIC37ARUAYF003C1X0AA001P	3	1/0 AWG	22.2	22.7	54.5	3000	140	165
MVIC37ARUAYF003C2X0AA001P	3	2/0 AWG	23.3	23.8	57.0	3300	155	190
MVIC37ARUAYF003C3X0AA001P	3	3/0 AWG	24.4	24.9	59.5	3600	175	215
MVIC37ARUAYF003C4X0AA001P	3	4/0 AWG	25.8	26.3	62.5	3950	210	250
MVIC37ARUAYF003C250CA001P	3	250 MCM	27.0	27.6	65.0	4300	230	280
MVIC37ARUAYF003C350CA001P	3	350 MCM	29.5	30.0	70.5	5100	265	355
MVIC37ARUAYF003C500CA001P	3	500 MCM	32.5	33.0	78.0	6400	355	430
MVIC37ARUAYF003C600CA001P	3	600 MCM	35.1	35.6	83.5	7350	390	485
MVIC37ARUAYF003C750CA001P	3	750 MCM	37.5	38.0	89.0	8300	440	555
MVIC37ARUAYF003C01KCA001P	3	1000 MCM	41.0	41.5	96.5	9850	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	
MVIC37ARUAYF003C002AA002P	3	2 AWG	18.1	18.7	46.0	2200	105	120
MVIC37ARUAYF003C001AA002P	3	1 AWG	19.0	19.5	47.5	2400	115	140
MVIC37ARUAYF003C1X0AA002P	3	1/0 AWG	19.9	20.4	49.5	2600	140	165
MVIC37ARUAYF003C2X0AA002P	3	2/0 AWG	21.0	21.5	52.0	2900	155	190
MVIC37ARUAYF003C3X0AA002P	3	3/0 AWG	22.2	22.7	54.5	3150	175	215
MVIC37ARUAYF003C4X0AA002P	3	4/0 AWG	23.5	24.0	57.5	3500	210	250
MVIC37ARUAYF003C250CA002P	3	250 MCM	24.8	25.3	60.0	3850	230	280
MVIC37ARUAYF003C350CA002P	3	350 MCM	27.2	27.7	65.5	4600	265	355
MVIC37ARUAYF003C500CA002P	3	500 MCM	30.2	30.7	73.0	5850	355	430
MVIC37ARUAYF003C600CA002P	3	600 MCM	32.2	32.7	77.5	6600	390	485
MVIC37ARUAYF003C750CA002P	3	750 MCM	34.6	35.1	82.5	7550	440	555
MVIC37ARUAYF003C01KCA002P	3	1000 MCM	38.2	38.7	90.5	9050	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	0.19	0.43	0.16	1.7	1.05	1.11	4.3	3.0	2.6
1	1 AWG	0.423	0.528	0.20	0.41	0.16	2.1	1.13	0.89	4.1	3.8	2.7
1	1/0 AWG	0.335	0.420	0.21	0.40	0.15	2.7	1.21	0.71	4.0	4.8	2.9
1	2/0 AWG	0.266	0.331	0.23	0.38	0.14	3.4	1.30	0.57	3.8	6.0	3.0
1	3/0 AWG	0.211	0.266	0.25	0.36	0.14	4.3	1.41	0.46	3.7	7.6	3.1
1	4/0 AWG	0.167	0.210	0.27	0.35	0.13	5.4	1.52	0.37	3.6	9.6	3.3
1	250 MCM	0.141	0.177	0.29	0.34	0.13	6.4	1.64	0.32	3.4	11.3	3.5
1	350 MCM	0.101	0.128	0.33	0.32	0.12	8.9	1.84	0.24	3.3	15.9	3.8
1	500 MCM	0.071	0.092	0.37	0.31	0.12	12.8	2.11	0.19	3.2	22.6	4.1
1	600 MCM	0.059	0.076	0.41	0.30	0.11	15.3	2.33	0.17	3.0	27.2	4.5
1	750 MCM	0.047	0.066	0.45	0.29	0.11	19.2	2.53	0.15	2.9	34.0	4.8
1	1000 MCM	0.035	0.052	0.50	0.28	0.11	25.5	2.83	0.13	2.8	45.3	5.2

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	0.22	0.40	0.15	1.7	1.23	1.11	4.9	3.0	2.3
1	1 AWG	0.423	0.528	0.23	0.39	0.15	2.1	1.32	0.88	4.8	3.8	2.5
1	1/0 AWG	0.335	0.420	0.25	0.38	0.14	2.7	1.43	0.71	4.6	4.8	2.6
1	2/0 AWG	0.266	0.331	0.27	0.35	0.13	3.4	1.54	0.57	4.4	6.0	2.7
1	3/0 AWG	0.211	0.266	0.30	0.34	0.13	4.3	1.67	0.45	4.3	7.6	2.9
1	4/0 AWG	0.167	0.210	0.32	0.33	0.12	5.4	1.81	0.37	4.2	9.6	3.0
1	250 MCM	0.141	0.177	0.35	0.32	0.12	6.4	1.95	0.32	4.0	11.3	3.2
1	350 MCM	0.101	0.128	0.39	0.31	0.12	8.9	2.22	0.24	3.9	15.9	3.5
1	500 MCM	0.071	0.092	0.45	0.29	0.11	12.8	2.54	0.18	3.7	22.6	3.9
1	600 MCM	0.059	0.076	0.49	0.29	0.11	15.3	2.76	0.17	3.6	27.2	4.1
1	750 MCM	0.047	0.066	0.53	0.28	0.10	19.2	3.01	0.15	3.5	34.0	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	1000 MCM	0.035	0.052	0.60	0.27	0.10	25.5	3.39	0.13	3.5	45.3	4.9