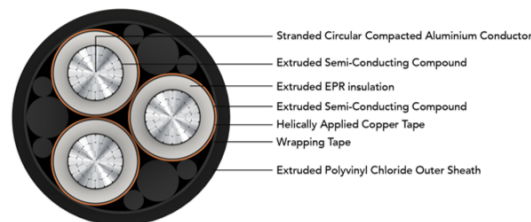


POLYCAB MV MC SCR ICEA S-93-639 35KV

MV Cable with Aluminium Conductor, EPR Insulation and Copper Screen



Images not to scale. Follow table for dimensions

APPLICATION

POLYCAB MV 35KV 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: 35kV 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
	35	84

POLYCAB MV MC SCR ICEA S-93-639 35KV

MV Cable with Aluminium Conductor, EPR Insulation and Copper Screen

DIMENSIONS, WEIGHT AND AMPACITY:

133% insulation:

Product Code	No. of Cores	Core Cross sectional Area	Nominal Diameter			Weight (Approx.)	Current rating *	
			Under metallic screen	Over metallic screen	Overall		Directly buried in ground	In air
	No.	AWG / MCM	mm	mm	mm	Kg/Km	Amps	
MVIC46ARUAYF001C002AA001P	3	2 AWG	30.6	31.1	74.0	4850	105	120
MVIC46ARUAYF001C001AA001P	3	1 AWG	31.4	31.9	75.8	5050	115	140
MVIC46ARUAYF001C1X0AA001P	3	1/0 AWG	32.4	32.9	77.8	5350	140	165
MVIC46ARUAYF001C2X0AA001P	3	2/0 AWG	33.4	33.9	80.1	5750	155	190
MVIC46ARUAYF001C3X0AA001P	3	3/0 AWG	34.6	35.1	82.6	6100	175	215
MVIC46ARUAYF001C4X0AA001P	3	4/0 AWG	35.9	36.4	85.5	6550	210	250
MVIC46ARUAYF001C250CA001P	3	250 MCM	37.2	37.7	88.3	7000	230	280
MVIC46ARUAYF001C350CA001P	3	350 MCM	39.6	40.1	93.5	7950	265	355
MVIC46ARUAYF001C500CA001P	3	500 MCM	42.7	43.2	100.0	9200	355	430
MVIC46ARUAYF001C600CA001P	3	600 MCM	45.2	45.7	105.6	10300	390	485
MVIC46ARUAYF001C750CA001P	3	750 MCM	47.6	48.1	110.8	11450	440	555
MVIC46ARUAYF001C01KCA001P	3	1000 MCM	51.2	51.7	118.4	13200	505	665

100% insulation:

Product Code	No. of Cores	Core Cross sectional Area	Nominal Diameter			Weight (Approx.)	Current rating *	
			Under metallic screen	Over metallic screen	Overall		Directly buried in ground	In air
	No.	AWG / MCM	mm	mm	mm	Kg/Km	Amps	
MVIC46ARUAYF001C002AA002P	3	2 AWG	26.8	27.3	64.5	3800	105	120
MVIC46ARUAYF001C001AA002P	3	1 AWG	27.6	28.1	66.3	4000	115	140
MVIC46ARUAYF001C1X0AA002P	3	1/0 AWG	28.5	29.1	68.4	4250	140	165
MVIC46ARUAYF001C2X0AA002P	3	2/0 AWG	29.6	30.1	70.6	4600	155	190
MVIC46ARUAYF001C3X0AA002P	3	3/0 AWG	30.8	31.3	74.4	5150	175	215
MVIC46ARUAYF001C4X0AA002P	3	4/0 AWG	32.1	32.6	77.2	5600	210	250
MVIC46ARUAYF001C250CA002P	3	250 MCM	33.4	33.9	80.0	6000	230	280
MVIC46ARUAYF001C350CA002P	3	350 MCM	35.8	36.3	85.3	6850	265	355
MVIC46ARUAYF001C500CA002P	3	500 MCM	38.8	39.4	91.8	8100	355	430
MVIC46ARUAYF001C600CA002P	3	600 MCM	40.9	41.4	96.2	8950	390	485
MVIC46ARUAYF001C750CA002P	3	750 MCM	43.3	43.8	101.4	10000	440	555
MVIC46ARUAYF001C01KCA002P	3	1000 MCM	46.8	47.3	109.0	11700	505	665

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

POLYCAB MV MC SCR ICEA S-93-639 35KV

MV Cable with Aluminium Conductor, EPR Insulation and Copper Screen

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	0.13	0.51	0.19	1.7	1.66	1.12	7.1	3.0	3.9
1	1 AWG	0.423	0.528	0.13	0.49	0.19	2.1	1.76	0.89	6.7	3.8	4.0
1	1/0 AWG	0.335	0.420	0.14	0.47	0.18	2.7	1.87	0.72	6.4	4.8	4.1
1	2/0 AWG	0.266	0.331	0.15	0.45	0.17	3.4	1.99	0.58	6.1	6.0	4.3
1	3/0 AWG	0.211	0.266	0.16	0.43	0.16	4.3	2.12	0.46	5.8	7.6	4.4
1	4/0 AWG	0.167	0.210	0.17	0.41	0.16	5.4	2.27	0.38	5.5	9.6	4.6
1	250 MCM	0.141	0.177	0.18	0.40	0.15	6.4	2.41	0.33	5.3	11.3	4.7
1	350 MCM	0.101	0.128	0.20	0.38	0.14	8.9	2.68	0.26	5.0	15.9	5.0
1	500 MCM	0.071	0.092	0.23	0.36	0.14	12.8	3.01	0.20	4.7	22.6	5.4
1	600 MCM	0.059	0.076	0.25	0.35	0.13	15.3	3.28	0.18	4.5	27.2	5.7
1	750 MCM	0.047	0.066	0.27	0.34	0.13	19.2	3.54	0.16	4.4	34.0	6.1
1	1000 MCM	0.035	0.052	0.30	0.32	0.12	25.5	3.91	0.14	4.2	45.3	6.5

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	0.14	0.48	0.18	1.7	1.86	1.11	7.8	3.0	3.4
1	1 AWG	0.423	0.528	0.15	0.46	0.18	2.1	1.97	0.89	7.5	3.8	3.5
1	1/0 AWG	0.335	0.420	0.16	0.45	0.17	2.7	2.10	0.71	7.1	4.8	3.7
1	2/0 AWG	0.266	0.331	0.17	0.42	0.16	3.4	2.25	0.57	6.8	6.0	3.8
1	3/0 AWG	0.211	0.266	0.18	0.41	0.15	4.3	2.41	0.46	6.5	7.6	3.9
1	4/0 AWG	0.167	0.210	0.20	0.39	0.15	5.4	2.58	0.38	6.2	9.6	4.1
1	250 MCM	0.141	0.177	0.21	0.38	0.14	6.4	2.75	0.33	6.0	11.3	4.3
1	350 MCM	0.101	0.128	0.23	0.36	0.14	8.9	3.07	0.25	5.7	15.9	4.6
1	500 MCM	0.071	0.092	0.26	0.34	0.13	12.8	3.47	0.20	5.4	22.6	4.9
1	600 MCM	0.059	0.076	0.28	0.33	0.13	15.3	3.73	0.18	5.2	27.2	5.2
1	750 MCM	0.047	0.066	0.31	0.32	0.12	19.2	4.04	0.16	5.1	34.0	5.5
1	1000 MCM	0.035	0.052	0.34	0.31	0.12	25.5	4.49	0.14	4.9	45.3	5.9