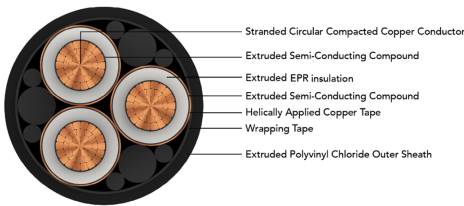


POLYCAB MV MC CU SCR ICEA S-93-639 35KV

MV Cable with Copper Conductor, EPR Insulation and Copper Screen



Images not to scale. Follow table for dimensions

APPLICATION

POLYCAB MV 35KV EPR insulated with Copper 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

Bending Radius: 7D

D is overall diameter of cable

CONSTRUCTION

- Conductor: Circular Compacted Copper 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)

Voltage Rating (kV AC)	High Voltage Test (kV AC)	
	100% level	133% level
35	69	84

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



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

MV Cable with Copper 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	
MVIC46CRUAYF001C002AA001P	3	2 AWG	30.6	31.1	74.0	5450	130	155
MVIC46CRUAYF001C001AA001P	3	1 AWG	31.4	31.9	75.8	5900	150	175
MVIC46CRUAYF001C1X0AA001P	3	1/0 AWG	32.4	32.9	77.8	6350	170	205
MVIC46CRUAYF001C2X0AA001P	3	2/0 AWG	33.4	33.9	80.1	7000	200	240
MVIC46CRUAYF001C3X0AA001P	3	3/0 AWG	34.6	35.1	82.6	7750	225	280
MVIC46CRUAYF001C4X0AA001P	3	4/0 AWG	35.9	36.4	85.5	8600	265	320
MVIC46CRUAYF001C250CA001P	3	250 MCM	37.2	37.7	88.3	9400	290	360
MVIC46CRUAYF001C350CA001P	3	350 MCM	39.6	40.1	93.5	11300	355	450
MVIC46CRUAYF001C500CA001P	3	500 MCM	42.7	43.2	100.0	14000	435	550
MVIC46CRUAYF001C600CA001P	3	600 MCM	45.2	45.7	105.6	16100	480	615
MVIC46CRUAYF001C750CA001P	3	750 MCM	47.6	48.1	110.8	18650	540	695
MVIC46CRUAYF001C01KCA001P	3	1000 MCM	51.2	51.7	118.4	22750	620	830

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	
MVIC46CRUAYF001C002AA002P	3	2 AWG	26.8	27.3	64.5	4450	130	155
MVIC46CRUAYF001C001AA002P	3	1 AWG	27.6	28.1	66.3	4800	150	175
MVIC46CRUAYF001C1X0AA002P	3	1/0 AWG	28.5	29.1	68.4	5250	170	205
MVIC46CRUAYF001C2X0AA002P	3	2/0 AWG	29.6	30.1	70.6	5900	200	240
MVIC46CRUAYF001C3X0AA002P	3	3/0 AWG	30.8	31.3	74.4	6800	225	280
MVIC46CRUAYF001C4X0AA002P	3	4/0 AWG	32.1	32.6	77.2	7600	265	320
MVIC46CRUAYF001C250CA002P	3	250 MCM	33.4	33.9	80.0	8400	290	360
MVIC46CRUAYF001C350CA002P	3	350 MCM	35.8	36.3	85.3	10250	355	450
MVIC46CRUAYF001C500CA002P	3	500 MCM	38.8	39.4	91.8	12900	435	550
MVIC46CRUAYF001C600CA002P	3	600 MCM	40.9	41.4	96.2	14750	480	615
MVIC46CRUAYF001C750CA002P	3	750 MCM	43.3	43.8	101.4	17200	540	695
MVIC46CRUAYF001C01KCA002P	3	1000 MCM	46.8	47.3	109.0	21250	620	830

* 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 CU SCR ICEA S-93-639 35KV

MV Cable with Copper 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	
No.	AWG / MCM	Ω/km	Ω/km	μF/km	mH/km	Ω/km	kN	Amps/Km	Ohms/Km	kV/mm	Phase conductor	Metallic screen
1	2 AWG	0.531	0.666	0.13	0.51	0.19	2.4	1.66	0.69	7.1	4.8	3.9
1	1 AWG	0.423	0.528	0.13	0.49	0.19	3.0	1.76	0.56	6.7	6.1	4.0
1	1/0 AWG	0.335	0.420	0.14	0.47	0.18	3.7	1.87	0.46	6.4	7.7	4.1
1	2/0 AWG	0.266	0.331	0.15	0.45	0.17	4.7	1.99	0.37	6.1	9.7	4.3
1	3/0 AWG	0.211	0.266	0.16	0.43	0.16	6.0	2.12	0.31	5.8	12.2	4.4
1	4/0 AWG	0.167	0.210	0.17	0.41	0.16	7.5	2.27	0.26	5.5	15.3	4.6
1	250 MCM	0.141	0.177	0.18	0.40	0.15	8.9	2.41	0.23	5.3	18.1	4.7
1	350 MCM	0.101	0.128	0.20	0.38	0.14	12.4	2.68	0.19	5.0	25.4	5.0
1	500 MCM	0.071	0.092	0.23	0.36	0.14	17.7	3.01	0.16	4.7	36.2	5.4
1	600 MCM	0.059	0.076	0.25	0.35	0.13	21.3	3.28	0.15	4.5	43.5	5.7
1	750 MCM	0.047	0.066	0.27	0.34	0.13	26.6	3.54	0.14	4.4	54.4	6.1
1	1000 MCM	0.035	0.052	0.30	0.32	0.12	35.4	3.91	0.13	4.2	72.5	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	
No.	AWG / MCM	Ω/km	Ω/km	μF/km	mH/km	Ω/km	kN	Amps/Km	Ohms/Km	kV/mm	Phase conductor	Metallic screen
1	2 AWG	0.531	0.666	0.14	0.48	0.18	2.4	1.86	1.11	7.8	4.8	3.4
1	1 AWG	0.423	0.528	0.15	0.46	0.18	3.0	1.97	0.89	7.5	6.1	3.5
1	1/0 AWG	0.335	0.420	0.16	0.45	0.17	3.7	2.10	0.71	7.1	7.7	3.7
1	2/0 AWG	0.266	0.331	0.17	0.42	0.16	4.7	2.25	0.57	6.8	9.7	3.8
1	3/0 AWG	0.211	0.266	0.18	0.41	0.15	6.0	2.41	0.46	6.5	12.2	3.9
1	4/0 AWG	0.167	0.210	0.20	0.39	0.15	7.5	2.58	0.38	6.2	15.3	4.1
1	250 MCM	0.141	0.177	0.21	0.38	0.14	8.9	2.75	0.33	6.0	18.1	4.3
1	350 MCM	0.101	0.128	0.23	0.36	0.14	12.4	3.07	0.25	5.7	25.4	4.6
1	500 MCM	0.071	0.092	0.26	0.34	0.13	17.7	3.47	0.19	5.4	36.2	4.9
1	600 MCM	0.059	0.076	0.28	0.33	0.13	21.3	3.73	0.18	5.2	43.5	5.2
1	750 MCM	0.047	0.066	0.31	0.32	0.12	26.6	4.04	0.16	5.1	54.4	5.5
1	1000 MCM	0.035	0.052	0.34	0.31	0.12	35.4	4.49	0.14	4.9	72.5	5.9