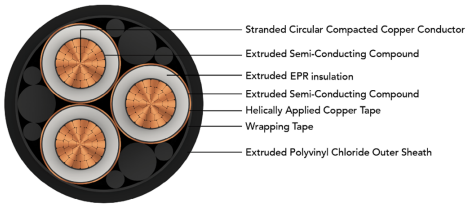
POLYCAB MV MC CU SCR ICEA S-93-639 15KV
MV Cable with Copper Conductor, EPR Insulation and Copper Screen



Images not to scale. Follow table for dimensions

APPLICATION

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

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 15KV
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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	
MVIC37CRUAYF003C002AA001P	3	2 AWG	20.4	20.9	51.0	3200	130	155
MVIC37CRUAYF003C001AA001P	3	1 AWG	21.3	21.8	52.5	3550	150	175
MVIC37CRUAYF003C1X0AA001P	3	1/0 AWG	22.2	22.7	54.5	4000	170	205
MVIC37CRUAYF003C2X0AA001P	3	2/0 AWG	23.3	23.8	57.0	4600	200	240
MVIC37CRUAYF003C3X0AA001P	3	3/0 AWG	24.4	24.9	59.5	5200	225	280
MVIC37CRUAYF003C4X0AA001P	3	4/0 AWG	25.8	26.3	62.5	6000	265	320
MVIC37CRUAYF003C250CA001P	3	250 MCM	27.0	27.6	65.0	6700	290	360
MVIC37CRUAYF003C350CA001P	3	350 MCM	29.5	30.0	70.5	8450	355	450
MVIC37CRUAYF003C500CA001P	3	500 MCM	32.5	33.0	78.0	11200	435	550
MVIC37CRUAYF003C600CA001P	3	600 MCM	35.1	35.6	83.5	13100	480	615
MVIC37CRUAYF003C750CA001P	3	750 MCM	37.5	38.0	89.0	15500	540	695
MVIC37CRUAYF003C01KCA001P	3	1000 MCM	41.0	41.5	96.5	19450	620	830

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	
MVIC37CRUAYF003C002AA002P	3	2 AWG	18.1	18.7	46.0	2850	130	155
MVIC37CRUAYF003C001AA002P	3	1 AWG	19.0	19.5	47.5	3200	150	175
MVIC37CRUAYF003C1X0AA002P	3	1/0 AWG	19.9	20.4	49.5	3600	170	205
MVIC37CRUAYF003C2X0AA002P	3	2/0 AWG	21.0	21.5	52.0	4150	200	240
MVIC37CRUAYF003C3X0AA002P	3	3/0 AWG	22.2	22.7	54.5	4800	225	280
MVIC37CRUAYF003C4X0AA002P	3	4/0 AWG	23.5	24.0	57.5	5550	265	320
MVIC37CRUAYF003C250CA002P	3	250 MCM	24.8	25.3	60.0	6250	290	360
MVIC37CRUAYF003C350CA002P	3	350 MCM	27.2	27.7	65.5	7950	355	450
MVIC37CRUAYF003C500CA002P	3	500 MCM	30.2	30.7	73.0	10650	435	550
MVIC37CRUAYF003C600CA002P	3	600 MCM	32.2	32.7	77.5	12350	480	615
MVIC37CRUAYF003C750CA002P	3	750 MCM	34.6	35.1	82.5	14750	540	695
MVIC37CRUAYF003C01KCA002P	3	1000 MCM	38.2	38.7	90.5	18600	620	830

* 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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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	2.4	1.05	0.69	4.3	4.8	2.6
1	1 AWG	0.423	0.528	0.20	0.41	0.16	3.0	1.13	0.55	4.1	6.1	2.7
1	1/0 AWG	0.335	0.420	0.21	0.40	0.15	3.7	1.21	0.45	4.0	7.7	2.9
1	2/0 AWG	0.266	0.331	0.23	0.38	0.14	4.7	1.30	0.36	3.8	9.7	3.0
1	3/0 AWG	0.211	0.266	0.25	0.36	0.14	6.0	1.41	0.30	3.7	12.2	3.1
1	4/0 AWG	0.167	0.210	0.27	0.35	0.13	7.5	1.52	0.25	3.6	15.3	3.3
1	250 MCM	0.141	0.177	0.29	0.34	0.13	8.9	1.64	0.22	3.4	18.1	3.5
1	350 MCM	0.101	0.128	0.33	0.32	0.12	12.4	1.84	0.18	3.3	25.4	3.8
1	500 MCM	0.071	0.092	0.37	0.31	0.12	17.7	2.11	0.15	3.2	36.2	4.1
1	600 MCM	0.059	0.076	0.41	0.30	0.11	21.3	2.33	0.14	3.0	43.5	4.5
1	750 MCM	0.047	0.066	0.45	0.29	0.11	26.6	2.53	0.13	2.9	54.4	4.8
1	1000 MCM	0.035	0.052	0.50	0.28	0.11	35.4	2.83	0.12	2.8	72.5	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	2.4	1.23	1.11	4.9	4.8	2.3
1	1 AWG	0.423	0.528	0.23	0.39	0.15	3.0	1.32	0.88	4.8	6.1	2.5
1	1/0 AWG	0.335	0.420	0.25	0.38	0.14	3.7	1.43	0.71	4.6	7.7	2.6
1	2/0 AWG	0.266	0.331	0.27	0.35	0.13	4.7	1.54	0.56	4.4	9.7	2.7
1	3/0 AWG	0.211	0.266	0.30	0.34	0.13	6.0	1.67	0.45	4.3	12.2	2.9
1	4/0 AWG	0.167	0.210	0.32	0.33	0.12	7.5	1.81	0.37	4.2	15.3	3.0
1	250 MCM	0.141	0.177	0.35	0.32	0.12	8.9	1.95	0.32	4.0	18.1	3.2
1	350 MCM	0.101	0.128	0.39	0.31	0.12	12.4	2.22	0.24	3.9	25.4	3.5
1	500 MCM	0.071	0.092	0.45	0.29	0.11	17.7	2.54	0.18	3.7	36.2	3.9
1	600 MCM	0.059	0.076	0.49	0.29	0.11	21.3	2.76	0.16	3.6	43.5	4.1
1	750 MCM	0.047	0.066	0.53	0.28	0.10	26.6	3.01	0.14	3.5	54.4	4.4
1	1000 MCM	0.035	0.052	0.60	0.27	0.10	35.4	3.39	0.13	3.5	72.5	4.9