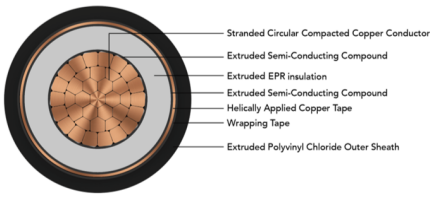
POLYCAB MV SC SCR UAR ICEA S-93-639 8KV
MV Cable with Copper Conductor, EPR Insulation and Copper Screen



Images not to scale. Follow table for dimensions

APPLICATION

POLYCAB MV 8KV EPR insulated with Copper conductor single 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: 8kV 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 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
- Outer Sheath: Extruded Polyvinyl Chloride, Colour: Black

Bending Radius: 12D
D is overall diameter of cable

Voltage Rating (kV AC)	High Voltage Test (kV AC)		Min. Partial discharge test (kV AC)	
	100% level	133% level	100% level	133% level
8	23	28	6	8

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

Round wire / Corrugated copper screen will be provided on demand
Alternative Sheath: CPE Outer Sheath or LSZH Outer sheath, and parameters will change accordingly

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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	
MVIC48CRUAYF001C002AA001P	1	2 AWG	16.4	16.9	20.0	700	140	210
MVIC48CRUAYF001C001AA001P	1	1 AWG	17.2	17.7	21.0	800	160	240
MVIC48CRUAYF001C1X0AA001P	1	1/0 AWG	18.1	18.6	22.5	1000	185	285
MVIC48CRUAYF001C2X0AA001P	1	2/0 AWG	19.2	19.7	24.0	1150	215	330
MVIC48CRUAYF001C3X0AA001P	1	3/0 AWG	20.4	20.9	25.0	1350	245	385
MVIC48CRUAYF001C4X0AA001P	1	4/0 AWG	21.7	22.2	26.5	1550	285	445
MVIC48CRUAYF001C250CA001P	1	250 MCM	23.0	23.5	27.5	1800	315	500
MVIC48CRUAYF001C350CA001P	1	350 MCM	25.4	25.9	30.0	2300	385	625
MVIC48CRUAYF001C500CA001P	1	500 MCM	28.4	28.9	33.0	3100	470	765
MVIC48CRUAYF001C600CA001P	1	600 MCM	30.5	31.0	35.0	3600	520	855
MVIC48CRUAYF001C750CA001P	1	750 MCM	32.9	33.4	37.5	4350	585	970
MVIC48CRUAYF001C01KCA001P	1	1000 MCM	36.4	36.9	41.0	5600	675	1155

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	
MVIC48CRUAYF001C002AA002P	1	2 AWG	15.1	15.6	19.0	650	140	210
MVIC48CRUAYF001C001AA002P	1	1 AWG	15.9	16.4	19.5	750	160	240
MVIC48CRUAYF001C1X0AA002P	1	1/0 AWG	16.9	17.4	20.5	900	185	285
MVIC48CRUAYF001C2X0AA002P	1	2/0 AWG	17.9	18.4	21.5	1050	215	330
MVIC48CRUAYF001C3X0AA002P	1	3/0 AWG	19.1	19.6	23.5	1300	245	385
MVIC48CRUAYF001C4X0AA002P	1	4/0 AWG	20.4	20.9	25.0	1500	285	445
MVIC48CRUAYF001C250CA002P	1	250 MCM	21.7	22.2	26.5	1750	315	500
MVIC48CRUAYF001C350CA002P	1	350 MCM	24.1	24.6	28.5	2250	385	625
MVIC48CRUAYF001C500CA002P	1	500 MCM	27.2	27.7	31.5	3000	470	765
MVIC48CRUAYF001C600CA002P	1	600 MCM	29.7	30.2	34.5	3600	520	855
MVIC48CRUAYF001C750CA002P	1	750 MCM	32.1	32.7	36.5	4350	585	970
MVIC48CRUAYF001C01KCA002P	1	1000 MCM	35.7	36.2	40.0	5550	675	1155

* Current Rating 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	0.26	0.42	0.16	2.4	0.77	0.69	3.0	4.8	2.1
1	1 AWG	0.423	0.528	0.28	0.41	0.15	3.0	0.83	0.55	2.9	6.1	2.2
1	1/0 AWG	0.335	0.420	0.30	0.40	0.15	3.7	0.90	0.45	2.8	7.7	2.3
1	2/0 AWG	0.266	0.331	0.32	0.38	0.14	4.7	0.98	0.36	2.7	9.7	2.5
1	3/0 AWG	0.211	0.266	0.35	0.36	0.14	6.0	1.06	0.30	2.7	12.2	2.6
1	4/0 AWG	0.167	0.210	0.38	0.35	0.13	7.5	1.16	0.25	2.6	15.3	2.8
1	250 MCM	0.141	0.177	0.41	0.34	0.13	8.9	1.25	0.22	2.5	18.1	3.0
1	350 MCM	0.101	0.128	0.47	0.32	0.12	12.4	1.42	0.18	2.4	25.4	3.3
1	500 MCM	0.071	0.092	0.54	0.31	0.12	17.7	1.64	0.15	2.3	36.2	3.6
1	600 MCM	0.059	0.076	0.59	0.30	0.11	21.3	1.78	0.14	2.2	43.5	3.9
1	750 MCM	0.047	0.066	0.65	0.29	0.11	26.6	1.95	0.13	2.2	54.4	4.2
1	1000 MCM	0.035	0.052	0.73	0.28	0.11	35.4	2.20	0.12	2.2	72.5	4.6

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	0.30	0.41	0.15	2.4	0.56	0.68	2.1	4.8	2.0
1	1 AWG	0.423	0.528	0.32	0.39	0.15	3.0	0.60	0.55	2.1	6.1	2.1
1	1/0 AWG	0.335	0.420	0.35	0.38	0.14	3.7	0.66	0.44	2.0	7.7	2.2
1	2/0 AWG	0.266	0.331	0.38	0.36	0.13	4.7	0.71	0.36	1.9	9.7	2.3
1	3/0 AWG	0.211	0.266	0.41	0.35	0.13	6.0	0.78	0.30	1.9	12.2	2.5
1	4/0 AWG	0.167	0.210	0.45	0.34	0.13	7.5	0.85	0.25	1.9	15.3	2.6
1	250 MCM	0.141	0.177	0.49	0.33	0.13	8.9	0.92	0.22	1.8	18.1	2.8
1	350 MCM	0.101	0.128	0.56	0.31	0.12	12.4	1.05	0.17	1.7	25.4	3.1
1	500 MCM	0.071	0.092	0.64	0.30	0.11	17.7	1.21	0.15	1.7	36.2	3.5
1	600 MCM	0.059	0.076	0.72	0.30	0.11	21.3	1.35	0.13	1.5	43.5	3.8
1	750 MCM	0.047	0.066	0.79	0.29	0.11	26.6	1.48	0.13	1.5	54.4	4.1
1	1000 MCM	0.035	0.052	0.89	0.27	0.10	35.4	1.67	0.12	1.5	72.5	4.5