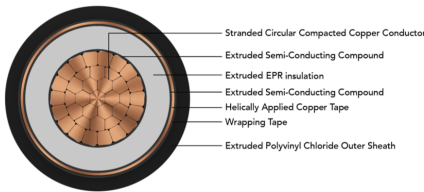


# POLYCAB MV SC SCR ICEA S-93-639 25KV

## MV Cable with Copper Conductor, EPR Insulation and Copper Screen

**POLYCAB**  
IDEAS. CONNECTED.



Images not to scale. Follow table for dimensions

### APPLICATION

POLYCAB MV 25KV 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: 25kV AC

#### Operation Temperature

Operating temperature: -35°C to +105°C  
Emergency operating temperature: 140°C  
Max. Short Circuit Temperature: 250°C

#### Bending Radius: 12D

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 wire / Corrugated copper screen 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)

#### AC High Voltage Test :

100% Level - 52 kV AC  
133% Level - 64 kV AC

### OUTSTANDING FEATURES

- 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

# POLYCAB MV SC SCR ICEA S-93-639 25KV

## 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 *	
	No.	AWG / MCM	Under metallic screen mm	Over metallic screen mm	Overall mm	Kg/Km	Directly buried in ground Amps	In air
MVIC32CRUAYF001C002AA001P	1	2 AWG	25.5	26.0	30.0	1250	140	210
MVIC32CRUAYF001C001AA001P	1	1 AWG	26.3	26.9	31.0	1350	160	240
MVIC32CRUAYF001C1X0AA001P	1	1/0 AWG	27.3	27.8	32.0	1500	185	285
MVIC32CRUAYF001C2X0AA001P	1	2/0 AWG	28.3	28.8	33.0	1650	215	330
MVIC32CRUAYF001C3X0AA001P	1	3/0 AWG	29.5	30.0	34.0	1900	245	385
MVIC32CRUAYF001C4X0AA001P	1	4/0 AWG	30.8	31.3	35.5	2150	285	445
MVIC32CRUAYF001C250CA001P	1	250 MCM	32.1	32.6	36.5	2400	315	500
MVIC32CRUAYF001C350CA001P	1	350 MCM	34.5	35.1	39.0	2950	385	625
MVIC32CRUAYF001C500CA001P	1	500 MCM	37.6	38.1	42.0	3800	470	765
MVIC32CRUAYF001C600CA001P	1	600 MCM	40.2	40.7	44.5	4400	520	855
MVIC32CRUAYF001C750CA001P	1	750 MCM	42.6	43.1	47.0	5200	585	970
MVIC32CRUAYF001C01KCA001P	1	1000 MCM	46.1	46.6	52.0	6650	675	1155

#### 100% insulation:

Product Code	No. of Cores	Core Cross sectional Area	Nominal Diameter			Weight (Approx.)	Current rating *	
	No.	AWG / MCM	Under metallic screen mm	Over metallic screen mm	Overall mm	Kg/Km	Directly buried in ground Amps	In air
MVIC32CRUAYF001C002AA002P	1	2 AWG	22.5	23.0	27.0	1050	140	210
MVIC32CRUAYF001C001AA002P	1	1 AWG	23.3	23.8	28.0	1150	160	240
MVIC32CRUAYF001C1X0AA002P	1	1/0 AWG	24.2	24.7	29.0	1300	185	285
MVIC32CRUAYF001C2X0AA002P	1	2/0 AWG	25.3	25.8	30.0	1500	215	330
MVIC32CRUAYF001C3X0AA002P	1	3/0 AWG	26.5	27.0	31.0	1700	245	385
MVIC32CRUAYF001C4X0AA002P	1	4/0 AWG	27.8	28.3	32.5	1950	285	445
MVIC32CRUAYF001C250CA002P	1	250 MCM	29.1	29.6	33.5	2150	315	500
MVIC32CRUAYF001C350CA002P	1	350 MCM	31.5	32.0	36.0	2750	385	625
MVIC32CRUAYF001C500CA002P	1	500 MCM	34.5	35.0	39.0	3550	470	765
MVIC32CRUAYF001C600CA002P	1	600 MCM	36.5	37.1	42.5	4250	520	855
MVIC32CRUAYF001C750CA002P	1	750 MCM	39.0	39.5	45.0	5000	585	970
MVIC32CRUAYF001C01KCA002P	1	1000 MCM	42.5	43.0	48.5	6300	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

# POLYCAB MV SC SCR ICEA S-93-639 25KV

## 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	kA/S	
1	2 AWG	0.531	0.666	0.15	0.50	0.19	2.4	1.39	0.69	5.8	4.8	3.3
1	1 AWG	0.423	0.528	0.16	0.48	0.18	3.0	1.48	0.56	5.6	6.1	3.4
1	1/0 AWG	0.335	0.420	0.17	0.47	0.18	3.7	1.57	0.46	5.3	7.7	3.5
1	2/0 AWG	0.266	0.331	0.18	0.44	0.17	4.7	1.68	0.37	5.1	9.7	3.6
1	3/0 AWG	0.211	0.266	0.19	0.42	0.16	6.0	1.81	0.31	4.9	12.2	3.8
1	4/0 AWG	0.167	0.210	0.21	0.41	0.15	7.5	1.94	0.26	4.7	15.3	3.9
1	250 MCM	0.141	0.177	0.22	0.40	0.15	8.9	2.07	0.23	4.5	18.1	4.1
1	350 MCM	0.101	0.128	0.25	0.38	0.14	12.4	2.32	0.19	4.3	25.4	4.4
1	500 MCM	0.071	0.092	0.28	0.35	0.13	17.7	2.62	0.16	4.1	36.2	4.8
1	600 MCM	0.059	0.076	0.31	0.35	0.13	21.3	2.88	0.15	3.8	43.5	5.1
1	750 MCM	0.047	0.066	0.33	0.34	0.13	26.6	3.11	0.14	3.7	54.4	5.4
1	1000 MCM	0.035	0.052	0.37	0.33	0.12	35.4	3.46	0.13	3.6	72.5	5.9

**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	kA/S	
1	2 AWG	0.531	0.666	0.17	0.48	0.18	2.4	1.58	0.69	6.5	4.8	2.9
1	1 AWG	0.423	0.528	0.18	0.46	0.17	3.0	1.68	0.56	6.2	6.1	3.0
1	1/0 AWG	0.335	0.420	0.19	0.45	0.17	3.7	1.80	0.45	6.0	7.7	3.1
1	2/0 AWG	0.266	0.331	0.21	0.42	0.16	4.7	1.94	0.37	5.7	9.7	3.2
1	3/0 AWG	0.211	0.266	0.22	0.41	0.15	6.0	2.08	0.31	5.5	12.2	3.4
1	4/0 AWG	0.167	0.210	0.24	0.39	0.15	7.5	2.25	0.26	5.3	15.3	3.6
1	250 MCM	0.141	0.177	0.26	0.38	0.14	8.9	2.41	0.23	5.1	18.1	3.7
1	350 MCM	0.101	0.128	0.29	0.36	0.14	12.4	2.70	0.19	4.9	25.4	4.0
1	500 MCM	0.071	0.092	0.33	0.34	0.13	17.7	3.07	0.16	4.7	36.2	4.4
1	600 MCM	0.059	0.076	0.35	0.34	0.13	21.3	3.32	0.15	4.5	43.5	4.7
1	750 MCM	0.047	0.066	0.38	0.33	0.12	26.6	3.61	0.14	4.4	54.4	5.0
1	1000 MCM	0.035	0.052	0.43	0.31	0.12	35.4	4.03	0.13	4.3	72.5	5.4