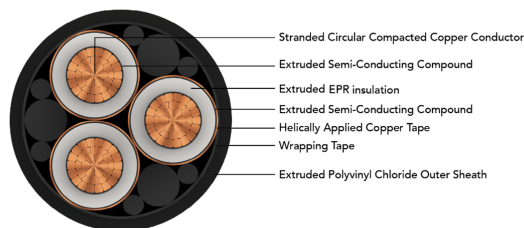
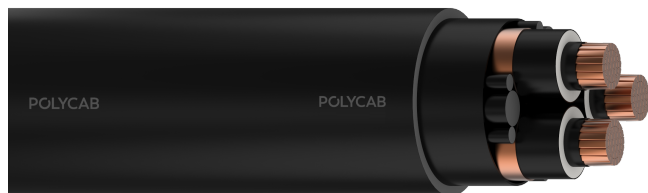


POLYCAB MV MC CU SCR ICEA S-93-639 25KV

MV Cable with Copper Conductor, EPR Insulation and Copper Screen



Images not to scale. Follow table for dimensions

APPLICATION

POLYCAB MV 25KV 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: 25kV 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 |
| | 25 | 64 |

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 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 * | |
|---------------------------|--------------|---------------------------|-----------------------|----------------------|---------|------------------|---------------------------|--------|
| | | | Under metallic screen | Over metallic screen | Overall | | Directly buried in ground | In air |
| | No. | AWG / MCM | mm | mm | mm | Kg/Km | Amps | |
| MVIC32CRUAYF001C002AA001P | 3 | 2 AWG | 25.5 | 26.0 | 62.0 | 4150 | 130 | 155 |
| MVIC32CRUAYF001C001AA001P | 3 | 1 AWG | 26.3 | 26.9 | 63.5 | 4550 | 150 | 175 |
| MVIC32CRUAYF001C1X0AA001P | 3 | 1/0 AWG | 27.3 | 27.8 | 65.5 | 5000 | 170 | 205 |
| MVIC32CRUAYF001C2X0AA001P | 3 | 2/0 AWG | 28.3 | 28.8 | 68.0 | 5600 | 200 | 240 |
| MVIC32CRUAYF001C3X0AA001P | 3 | 3/0 AWG | 29.5 | 30.0 | 70.5 | 6300 | 225 | 280 |
| MVIC32CRUAYF001C4X0AA001P | 3 | 4/0 AWG | 30.8 | 31.3 | 74.5 | 7300 | 265 | 320 |
| MVIC32CRUAYF001C250CA001P | 3 | 250 MCM | 32.1 | 32.6 | 77.5 | 8050 | 290 | 360 |
| MVIC32CRUAYF001C350CA001P | 3 | 350 MCM | 34.5 | 35.1 | 82.5 | 9900 | 355 | 450 |
| MVIC32CRUAYF001C500CA001P | 3 | 500 MCM | 37.6 | 38.1 | 89.0 | 12550 | 435 | 550 |
| MVIC32CRUAYF001C600CA001P | 3 | 600 MCM | 40.2 | 40.7 | 94.5 | 14500 | 480 | 615 |
| MVIC32CRUAYF001C750CA001P | 3 | 750 MCM | 42.6 | 43.1 | 100.0 | 17000 | 540 | 695 |
| MVIC32CRUAYF001C01KCA001P | 3 | 1000 MCM | 46.1 | 46.6 | 107.5 | 21050 | 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 | |
| MVIC32CRUAYF001C002AA002P | 3 | 2 AWG | 22.5 | 23.0 | 55.0 | 3600 | 130 | 155 |
| MVIC32CRUAYF001C001AA002P | 3 | 1 AWG | 23.3 | 23.8 | 57.0 | 3950 | 150 | 175 |
| MVIC32CRUAYF001C1X0AA002P | 3 | 1/0 AWG | 24.2 | 24.7 | 59.0 | 4350 | 170 | 205 |
| MVIC32CRUAYF001C2X0AA002P | 3 | 2/0 AWG | 25.3 | 25.8 | 61.5 | 4950 | 200 | 240 |
| MVIC32CRUAYF001C3X0AA002P | 3 | 3/0 AWG | 26.5 | 27.0 | 64.0 | 5600 | 225 | 280 |
| MVIC32CRUAYF001C4X0AA002P | 3 | 4/0 AWG | 27.8 | 28.3 | 66.5 | 6400 | 265 | 320 |
| MVIC32CRUAYF001C250CA002P | 3 | 250 MCM | 29.1 | 29.6 | 69.5 | 7150 | 290 | 360 |
| MVIC32CRUAYF001C350CA002P | 3 | 350 MCM | 31.5 | 32.0 | 76.0 | 9150 | 355 | 450 |
| MVIC32CRUAYF001C500CA002P | 3 | 500 MCM | 34.5 | 35.0 | 82.5 | 11700 | 435 | 550 |
| MVIC32CRUAYF001C600CA002P | 3 | 600 MCM | 36.5 | 37.1 | 87.0 | 13500 | 480 | 615 |
| MVIC32CRUAYF001C750CA002P | 3 | 750 MCM | 39.0 | 39.5 | 92.0 | 15950 | 540 | 695 |
| MVIC32CRUAYF001C01KCA002P | 3 | 1000 MCM | 42.5 | 43.0 | 99.5 | 19900 | 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 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 | Phase conductor | Metallic screen |
| 1 | 2 AWG | 0.531 | 0.666 | 0.15 | 0.47 | 0.18 | 2.4 | 1.39 | 0.69 | 5.8 | 4.8 | 3.3 |
| 1 | 1 AWG | 0.423 | 0.528 | 0.16 | 0.45 | 0.17 | 3.0 | 1.48 | 0.56 | 5.6 | 6.1 | 3.4 |
| 1 | 1/0 AWG | 0.335 | 0.420 | 0.17 | 0.44 | 0.17 | 3.7 | 1.57 | 0.45 | 5.3 | 7.7 | 3.5 |
| 1 | 2/0 AWG | 0.266 | 0.331 | 0.18 | 0.41 | 0.16 | 4.7 | 1.68 | 0.37 | 5.1 | 9.7 | 3.6 |
| 1 | 3/0 AWG | 0.211 | 0.266 | 0.19 | 0.40 | 0.15 | 6.0 | 1.81 | 0.31 | 4.9 | 12.2 | 3.8 |
| 1 | 4/0 AWG | 0.167 | 0.210 | 0.21 | 0.38 | 0.15 | 7.5 | 1.94 | 0.26 | 4.7 | 15.3 | 3.9 |
| 1 | 250 MCM | 0.141 | 0.177 | 0.22 | 0.38 | 0.14 | 8.9 | 2.07 | 0.23 | 4.5 | 18.1 | 4.1 |
| 1 | 350 MCM | 0.101 | 0.128 | 0.25 | 0.35 | 0.13 | 12.4 | 2.32 | 0.19 | 4.3 | 25.4 | 4.4 |
| 1 | 500 MCM | 0.071 | 0.092 | 0.28 | 0.33 | 0.13 | 17.7 | 2.62 | 0.16 | 4.1 | 36.2 | 4.8 |
| 1 | 600 MCM | 0.059 | 0.076 | 0.31 | 0.33 | 0.12 | 21.3 | 2.88 | 0.15 | 3.8 | 43.5 | 5.1 |
| 1 | 750 MCM | 0.047 | 0.066 | 0.33 | 0.32 | 0.12 | 26.6 | 3.11 | 0.14 | 3.7 | 54.4 | 5.4 |
| 1 | 1000 MCM | 0.035 | 0.052 | 0.37 | 0.30 | 0.11 | 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 | Phase conductor | Metallic screen |
| 1 | 2 AWG | 0.531 | 0.666 | 0.17 | 0.45 | 0.17 | 2.4 | 1.58 | 1.11 | 6.5 | 4.8 | 2.9 |
| 1 | 1 AWG | 0.423 | 0.528 | 0.18 | 0.43 | 0.16 | 3.0 | 1.68 | 0.88 | 6.2 | 6.1 | 3.0 |
| 1 | 1/0 AWG | 0.335 | 0.420 | 0.19 | 0.42 | 0.16 | 3.7 | 1.80 | 0.71 | 6.0 | 7.7 | 3.1 |
| 1 | 2/0 AWG | 0.266 | 0.331 | 0.21 | 0.39 | 0.15 | 4.7 | 1.94 | 0.57 | 5.7 | 9.7 | 3.2 |
| 1 | 3/0 AWG | 0.211 | 0.266 | 0.22 | 0.38 | 0.14 | 6.0 | 2.08 | 0.46 | 5.5 | 12.2 | 3.4 |
| 1 | 4/0 AWG | 0.167 | 0.210 | 0.24 | 0.36 | 0.14 | 7.5 | 2.25 | 0.37 | 5.3 | 15.3 | 3.6 |
| 1 | 250 MCM | 0.141 | 0.177 | 0.26 | 0.36 | 0.13 | 8.9 | 2.41 | 0.32 | 5.1 | 18.1 | 3.7 |
| 1 | 350 MCM | 0.101 | 0.128 | 0.29 | 0.34 | 0.13 | 12.4 | 2.70 | 0.25 | 4.9 | 25.4 | 4.0 |
| 1 | 500 MCM | 0.071 | 0.092 | 0.33 | 0.32 | 0.12 | 17.7 | 3.07 | 0.19 | 4.7 | 36.2 | 4.4 |
| 1 | 600 MCM | 0.059 | 0.076 | 0.35 | 0.31 | 0.12 | 21.3 | 3.32 | 0.17 | 4.5 | 43.5 | 4.7 |
| 1 | 750 MCM | 0.047 | 0.066 | 0.38 | 0.30 | 0.11 | 26.6 | 3.61 | 0.15 | 4.4 | 54.4 | 5.0 |
| 1 | 1000 MCM | 0.035 | 0.052 | 0.43 | 0.29 | 0.11 | 35.4 | 4.03 | 0.13 | 4.3 | 72.5 | 5.4 |