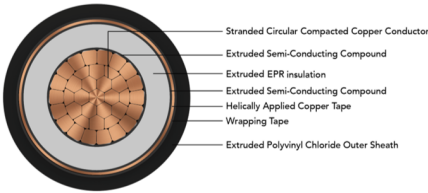


# POLYCAB MV SC SCR ICEA S-93-639 15KV

## 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 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: 15kV 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
	15	35	44	11

### 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

# POLYCAB MV SC SCR ICEA S-93-639 15KV

## 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	
MVIC37CRUAYF001C002AA001P	1	2 AWG	20.4	20.9	25.0	950	140	210
MVIC37CRUAYF001C001AA001P	1	1 AWG	21.3	21.8	26.0	1050	160	240
MVIC37CRUAYF001C1X0AA001P	1	1/0 AWG	22.2	22.7	27.0	1200	185	285
MVIC37CRUAYF001C2X0AA001P	1	2/0 AWG	23.3	23.8	28.0	1350	215	330
MVIC37CRUAYF001C3X0AA001P	1	3/0 AWG	24.4	24.9	29.0	1550	245	385
MVIC37CRUAYF001C4X0AA001P	1	4/0 AWG	25.8	26.3	30.5	1800	285	445
MVIC37CRUAYF001C250CA001P	1	250 MCM	27.0	27.6	31.5	2050	315	500
MVIC37CRUAYF001C350CA001P	1	350 MCM	29.5	30.0	34.0	2600	385	625
MVIC37CRUAYF001C500CA001P	1	500 MCM	32.5	33.0	37.0	3350	470	765
MVIC37CRUAYF001C600CA001P	1	600 MCM	35.1	35.6	39.5	3950	520	855
MVIC37CRUAYF001C750CA001P	1	750 MCM	37.5	38.0	42.0	4750	585	970
MVIC37CRUAYF001C01KCA001P	1	1000 MCM	41.0	41.5	47.0	6150	675	1155

#### 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	
MVIC37CRUAYF001C002AA002P	1	2 AWG	18.1	18.7	22.0	800	140	210
MVIC37CRUAYF001C001AA002P	1	1 AWG	19.0	19.5	23.5	950	160	240
MVIC37CRUAYF001C1X0AA002P	1	1/0 AWG	19.9	20.4	24.5	1050	185	285
MVIC37CRUAYF001C2X0AA002P	1	2/0 AWG	21.0	21.5	25.5	1250	215	330
MVIC37CRUAYF001C3X0AA002P	1	3/0 AWG	22.2	22.7	26.5	1450	245	385
MVIC37CRUAYF001C4X0AA002P	1	4/0 AWG	23.5	24.0	28.0	1650	285	445
MVIC37CRUAYF001C250CA002P	1	250 MCM	24.8	25.3	29.5	1900	315	500
MVIC37CRUAYF001C350CA002P	1	350 MCM	27.2	27.7	31.5	2450	385	625
MVIC37CRUAYF001C500CA002P	1	500 MCM	30.2	30.7	35.0	3200	470	765
MVIC37CRUAYF001C600CA002P	1	600 MCM	32.2	32.7	37.0	3750	520	855
MVIC37CRUAYF001C750CA002P	1	750 MCM	34.6	35.1	39.0	4500	585	970
MVIC37CRUAYF001C01KCA002P	1	1000 MCM	38.2	38.7	44.5	5900	675	1155

# POLYCAB MV SC SCR ICEA S-93-639 15KV

## 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	
											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	0.46	0.18	2.4	1.05	0.69	1.61	4.3	4.8
1	1 AWG	0.423	0.528	0.20	0.45	0.17	3.0	1.13	0.56	1.43	4.1	6.1
1	1/0 AWG	0.335	0.420	0.21	0.43	0.16	3.7	1.21	0.45	1.29	4.0	7.7
1	2/0 AWG	0.266	0.331	0.23	0.41	0.15	4.7	1.30	0.37	1.16	3.8	9.7
1	3/0 AWG	0.211	0.266	0.25	0.39	0.15	6.0	1.41	0.30	1.06	3.7	12.2
1	4/0 AWG	0.167	0.210	0.27	0.38	0.14	7.5	1.52	0.25	0.96	3.6	15.3
1	250 MCM	0.141	0.177	0.29	0.37	0.14	8.9	1.64	0.23	0.89	3.4	18.1
1	350 MCM	0.101	0.128	0.33	0.35	0.13	12.4	1.84	0.18	0.79	3.3	25.4
1	500 MCM	0.071	0.092	0.37	0.33	0.12	17.7	2.11	0.15	0.69	3.2	36.2
1	600 MCM	0.059	0.076	0.41	0.32	0.12	21.3	2.33	0.14	0.56	3.0	43.5
1	750 MCM	0.047	0.066	0.45	0.31	0.12	26.6	2.53	0.14	0.59	2.9	54.4
1	1000 MCM	0.035	0.052	0.50	0.31	0.12	35.4	2.83	0.13	0.53	2.8	72.5

#### 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	
											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	0.44	0.17	2.4	1.23	0.69	1.72	4.9	4.8
1	1 AWG	0.423	0.528	0.23	0.43	0.16	3.0	1.32	0.56	1.54	4.8	6.1
1	1/0 AWG	0.335	0.420	0.25	0.41	0.16	3.7	1.43	0.45	1.38	4.6	7.7
1	2/0 AWG	0.266	0.331	0.27	0.39	0.15	4.7	1.54	0.36	1.25	4.4	9.7
1	3/0 AWG	0.211	0.266	0.30	0.38	0.14	6.0	1.67	0.30	1.14	4.3	12.2
1	4/0 AWG	0.167	0.210	0.32	0.36	0.14	7.5	1.81	0.25	1.03	4.2	15.3
1	250 MCM	0.141	0.177	0.35	0.35	0.13	8.9	1.95	0.22	0.96	4.0	18.1
1	350 MCM	0.101	0.128	0.39	0.33	0.13	12.4	2.22	0.18	0.84	3.9	25.4
1	500 MCM	0.071	0.092	0.45	0.32	0.12	17.7	2.54	0.15	0.73	3.7	36.2
1	600 MCM	0.059	0.076	0.49	0.31	0.12	21.3	2.76	0.14	0.60	3.6	43.5
1	750 MCM	0.047	0.066	0.53	0.30	0.11	26.6	3.01	0.13	0.63	3.5	54.4
1	1000 MCM	0.035	0.052	0.60	0.29	0.11	35.4	3.39	0.12	0.56	3.5	72.5