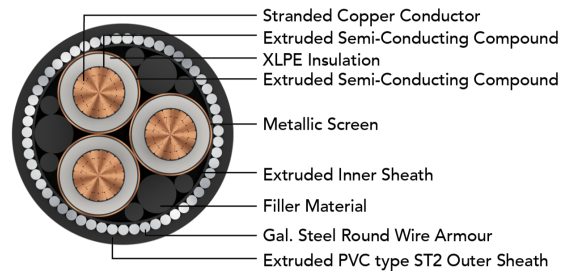


# POLYCAB MV CU IEC 60502-2 8.7/15 KV

## Medium Voltage Copper Armoured Cable, 8.7/15 (17.5) KV AC



Images not to scale. Follow table for dimensions

### APPLICATION

POLYCAB MV 8.7/15 KV XLPE insulated with copper conductor single & multi core cable is suitable to use for power networks, underground and in cable ducting.

### CHARACTERISTICS

#### Voltage Rating

Nominal Voltage: 8.7/15 kV

#### Operation Temperature

Max. operating temperature: +90°C

Max. Short Circuit Temperature: 250°C

### CONSTRUCTION

- Conductor: Circular Compacted Copper conductor as per IEC 60228, class 2
- Conductor Screen: Extruded Semi-conductive compound
- Insulation: XLPE
- Non-Metallic Insulation Screen: Extruded Semi-conductive compound
- Metallic Insulation Screen: Copper tape screen
- Inner Sheath: Extruded Polyvinyl Chloride
- Armour:

Single Core: Aluminium Round Wire Armoured (AWA)

Multi Core: Galvanised Steel Round Wire (SWA)

- Outer Sheath: Extruded Polyvinyl Chloride, Colour: Black

#### Bending Radius:

Fixed Installation: 12D

D is overall diameter of cable

#### Test Voltage

30.5kV AC 50Hz

#### Impulse Test Voltage

Peak 95kV AC

### OUTSTANDING FEATURES

- Flame retardant
- High life
- UV resistant
- Oil resistant

### STANDARD FOLLOWS

IEC 60228

IEC 60502-2

BS 6622

### COMPLIANCE

- Conductor resistance IEC 60228
- Insulation resistance IEC 60502-2
- Flammability test IEC 60332-1-2
- Partial Discharge test IEC 60502-2

### OUR ACCREDITATIONS



### APPROVAL



DIMENSIONS AND WEIGHTS:

Product Code	No. of Cores	Core Cross sectional Area	Nominal Diameter			Weight (Approx.)
			Under armour	Over armour	Overall	
	No.	mm <sup>2</sup>	mm	mm	mm	Kg/Km
MVIE23CXA	1	50	21.8	25.0	29.0	1300
MVIE23CXA	1	70	23.4	26.6	30.0	1600
MVIE23CXA	1	95	25.2	29.2	33.0	1950
MVIE23CXA	1	120	26.8	30.8	35.0	2200
MVIE23CXA	1	150	28.5	32.5	37.0	2600
MVIE23CXA	1	185	30.2	34.2	39.0	3000
MVIE23CXA	1	240	32.6	36.6	41.0	3650
MVIE23CXA	1	300	35.1	39.1	44.0	4300
MVIE23CXA	1	400	38.5	43.5	49.0	5350
MVIE23CXA	1	500	41.8	46.8	52.0	6700
MVIE23CXA	1	630	45.4	50.4	56.0	8050
MVIE23CXA	1	800	49.7	54.7	60.0	9850
MVIE23CXA	1	1000	54.2	59.2	65.0	11950
MVIE23CXS	3	35	38.1	43.1	48.0	4900
MVIE23CXS	3	50	40.2	45.2	50.0	5700
MVIE23CXS	3	70	43.6	48.6	54.0	6650
MVIE23CXS	3	95	47.7	52.7	59.0	7850
MVIE23CXS	3	120	51.2	56.2	62.0	8950
MVIE23CXS	3	150	55.0	60.0	66.0	10300
MVIE23CXS	3	185	58.8	63.8	70.0	12550
MVIE23CXS	3	240	64.3	70.6	77.0	14950
MVIE23CXS	3	300	69.9	76.2	83.0	17500
MVIE23CXS	3	400	77.0	83.3	91.0	21100

ELECTRICAL CHARACTERISTICS:

No. of Cores	Core Cross sectional Area	Max. DC Resistance at 20°C	Max. AC Resistance at 90°C	Approx. Capacitance	Approx. Inductance	Approx. Reactance	Continuous Current Rating					
							In ground at 20°C		In Ducts		In air at 30°C	
							Flat	Trefoil	Flat	Trefoil	Flat	Trefoil
No.	mm <sup>2</sup>	Ω/km	Ω/km	μF/km	mH/km	Ω/km	Amps					
1	50	0.387	0.494	0.19	0.42	0.13	203	196	188	186	243	238
1	70	0.268	0.342	0.22	0.40	0.13	246	239	229	227	303	296

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No. of Cores	Core Cross sectional Area	Max. DC Resistance at 20°C	Max. AC Resistance at 90°C	Approx. Capacitance	Approx. Inductance	Approx. Reactance	Continuous Current Rating					
							In ground at 20°C		In Ducts		In air at 30°C	
							Flat	Trefoil	Flat	Trefoil	Flat	Trefoil
No.	mm <sup>2</sup>	Ω/km	Ω/km	μF/km	mH/km	Ω/km	Amps					
1	95	0.193	0.247	0.24	0.39	0.12	293	285	274	271	369	361
1	120	0.153	0.196	0.27	0.37	0.12	332	323	311	308	426	417
1	150	0.124	0.159	0.29	0.36	0.11	366	361	347	343	481	473
1	185	0.0991	0.127	0.32	0.35	0.11	410	406	391	387	550	543
1	240	0.0754	0.097	0.35	0.34	0.11	470	469	453	447	647	641
1	300	0.0601	0.078	0.39	0.32	0.10	524	526	510	504	739	735
1	400	0.0470	0.062	0.44	0.32	0.10	572	590	571	564	837	845
1	500	0.0366	0.052	0.52	0.26	0.08	660	655	640	635	970	960
1	630	0.0283	0.042	0.57	0.25	0.08	735	730	715	710	1110	1100
1	800	0.0221	0.036	0.64	0.24	0.07	770	820	800	790	1260	1250
1	1000	0.0176	0.032	0.70	0.23	0.07	825	885	865	855	1420	1410

No. of Cores	Core Cross sectional Area	Max. DC Resistance at 20°C	Max. AC Resistance at 90°C	Approx. Capacitance	Approx. Inductance	Approx. Reactance	Continuous Current Rating		
							In ground at 20°C	In Ducts	In air at 30°C
							Amps		
3	35	0.524	0.668	0.26	0.43	0.10	154	134	172
3	50	0.387	0.494	0.19	0.35	0.11	181	158	205
3	70	0.268	0.342	0.22	0.34	0.11	220	194	253
3	95	0.193	0.247	0.24	0.32	0.10	263	232	307
3	120	0.153	0.196	0.27	0.31	0.10	298	264	352
3	150	0.124	0.159	0.29	0.30	0.09	332	296	397
3	185	0.0991	0.127	0.32	0.29	0.09	374	335	453
3	240	0.0754	0.097	0.35	0.28	0.09	431	387	529
3	300	0.0601	0.078	0.39	0.27	0.09	482	435	599
3	400	0.0470	0.062	0.44	0.26	0.08	541	492	683

Maximum conductor temperature 90°C  
 Ambient air temperature 30°C  
 Ground temperature 20°C  
 Depth of laying 0.8 m  
 Thermal resistivity of soil 1.5 K.m/W  
 Thermal resistivity of earthenware ducts 1.2 K.m/W

De-Rating Factor

Current rating de-rating factors for other than 30°C ambient air temperature.

Air Temperature	20	25	35	40	45	50	55	60
De-rating factor	1.08	1.04	0.96	0.91	0.87	0.82	0.76	0.71

Current rating de-rating factors for other than 20°C ground temperature.

Ground Temperature	10	15	25	30	35	40	45	50
De-rating factor	1.07	1.04	0.96	0.93	0.89	0.85	0.8	0.76

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