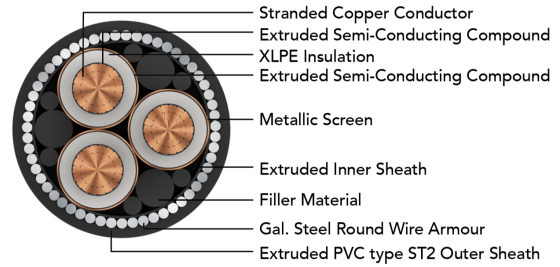


# POLYCAB MV CU IEC 60502-2 6/10 KV

## Medium Voltage Copper Armoured Cable, 6/10 (12) KV AC



Images not to scale. Follow table for dimensions

### APPLICATION

POLYCAB MV 6/10 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: 6/10 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

21kV AC 50 Hz

#### Impulse Test Voltage

Peak 75kV 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  |
| • Fire Retardant         | IEC 60332-3-22 |
| • Partial Discharge test | IEC 60502-2    |

### OUR ACCREDITATIONS



### APPROVAL



# POLYCAB MV CU IEC 60502-2 6/10 KV

## Medium Voltage Copper Armoured Cable, 6/10 (12) KV AC

### 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
MVIE22CXAWY2001C050SA001P	1	50	19.6	22.8	26.0	1200
MVIE22CXAWY2001C070SA001P	1	70	21.2	24.4	28.0	1450
MVIE22CXAWY2001C095SA001P	1	95	23.0	26.2	30.0	1700
MVIE22CXAWY2001C120SA001P	1	120	24.6	27.8	32.0	2050
MVIE22CXAWY2001C150SA001P	1	150	26.3	30.3	35.0	2450
MVIE22CXAWY2001C185SA001P	1	185	28.0	32.0	36.0	2850
MVIE22CXAWY2001C240SA001P	1	240	30.4	34.4	39.0	3450
MVIE22CXAWY2001C300SA001P	1	300	32.9	36.9	41.0	4150
MVIE22CXAWY2001C400SA001P	1	400	36.1	40.1	45.0	5150
MVIE22CXAWY2001C500SA001P	1	500	41.0	44.6	50.0	6450
MVIE22CXAWY2001C630SA001P	1	630	43.2	48.2	54.0	7800
MVIE22CXAWY2001C800SA001P	1	800	47.3	52.3	58.0	9550
MVIE22CXAWY2001C01KSA001P	1	1000	51.8	56.8	63.0	11650
MVIE22CXSWY2003C035SA001P	3	35	38.1	43.1	50.0	4400
MVIE22CXSWY2003C050SA001P	3	50	40.2	45.2	54.0	5050
MVIE22CXSWY2003C070SA001P	3	70	43.6	48.6	59.0	5900
MVIE22CXSWY2003C095SA001P	3	95	47.7	52.7	62.0	7100
MVIE22CXSWY2003C120SA001P	3	120	51.2	56.2	66.0	8200
MVIE22CXSWY2003C150SA001P	3	150	55.0	60.0	70.0	9550
MVIE22CXSWY2003C185SA002PS	3	185	58.8	63.8	77.0	10900
MVIE22CXSWY2003C240SA001P	3	240	64.3	70.6	83.0	14000
MVIE22CXSWY2003C300SA001P	3	300	69.9	76.2	91.0	16550
MVIE22CXSWY2003C400SA001P	3	400	77.0	83.3	26.0	20100

# POLYCAB MV CU IEC 60502-2 6/10 KV

## Medium Voltage Copper Armoured Cable, 6/10 (12) KV AC

### 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	0.23	0.41	0.13	203	196	188	186	243	238
1	70	0.268	0.342	0.26	0.39	0.12	246	239	229	227	303	296
1	95	0.193	0.247	0.30	0.37	0.12	293	285	274	271	369	361
1	120	0.153	0.196	0.33	0.35	0.11	332	323	311	308	426	417
1	150	0.124	0.159	0.36	0.35	0.11	366	361	347	343	481	473
1	185	0.0991	0.127	0.39	0.34	0.11	410	406	391	387	550	543
1	240	0.0754	0.097	0.44	0.32	0.10	470	469	453	447	647	641
1	300	0.0601	0.078	0.49	0.31	0.10	524	526	510	504	739	735
1	400	0.0470	0.062	0.55	0.30	0.09	572	590	571	564	837	845
1	500	0.0366	0.052	0.67	0.25	0.08	660	655	640	635	970	960
1	630	0.0283	0.042	0.74	0.24	0.08	735	730	715	710	1110	1100
1	800	0.0221	0.036	0.82	0.23	0.07	770	820	800	790	1260	1250
1	1000	0.0176	0.032	0.91	0.22	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	0.32	0.41	0.09	154	134	172
3	50	0.387	0.494	0.23	0.33	0.10	181	158	205
3	70	0.268	0.342	0.26	0.31	0.10	220	194	253
3	95	0.193	0.247	0.30	0.30	0.09	263	232	307
3	120	0.153	0.196	0.33	0.29	0.09	298	264	352
3	150	0.124	0.159	0.36	0.28	0.09	332	296	397
3	185	0.0991	0.127	0.39	0.27	0.09	374	335	453
3	240	0.0754	0.097	0.44	0.26	0.08	431	387	529

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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
No.	mm <sup>2</sup>	Ω/km	Ω/km	μF/km	mH/km	Ω/km	Amps		
3	300	0.0601	0.078	0.49	0.26	0.08	482	435	599
3	400	0.0470	0.062	0.55	0.25	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