



Images not to scale. Follow table for dimensions

## APPLICATION

POLY CAB MV 3.6/6 KV XLPE insulated with copper conductor single & multi core cable is suitable to use for power distribution for external and direct burial applications in power network system.

## CHARACTERISTICS

### Voltage Rating

Nominal Voltage: 3.6/6 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 Armoured (SWA)

- Outer Sheath: Extruded Polyvinyl Chloride, Colour: Black

### Bending Radius:

Fixed Installation: 12D  
D is overall diameter of cable

### Test Voltage

12.5kV AC 50 Hz

### Impulse Test Voltage

Peak 60kV 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



**POLY CAB MV CU IEC 60502-2 3.6/6 KV**  
**Medium Voltage Copper Armoured Cable, 3.6/6 (7.2) KV AC**

**POLY CAB**  
 IDEAS. CONNECTED.

**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	
MVIE21CXA WY2001C035SA001P	1	35	16.3	19.5	23.0	950
MVIE21CXA WY2001C050SA001P	1	50	17.8	21.0	25.0	1100
MVIE21CXA WY2001C070SA001P	1	70	19.4	22.6	27.0	1350
MVIE21CXA WY2001C095SA001P	1	95	21.2	24.4	29.0	1600
MVIE21CXA WY2001C120SA001P	1	120	22.8	26	30.0	1900
MVIE21CXA WY2001C150SA001P	1	150	24.5	27.7	32.0	2250
MVIE21CXA WY2001C185SA001P	1	185	26.2	30.2	35.0	2700
MVIE21CXA WY2001C240SA001P	1	240	28.8	32.8	37.0	3350
MVIE21CXA WY2001C300SA001P	1	300	31.7	35.7	40.0	4050
MVIE21CXA WY2001C400SA001P	1	400	35.3	39.3	44.0	5050
MVIE21CXA WY2001C500SA001P	1	500	39.2	44.2	49.0	6400
MVIE21CXA WY2001C630SA001P	1	630	42.9	47.9	53.0	7700
MVIE21CXA WY2001C800SA001P	1	800	46.9	51.9	57.0	9450
MVIE21CXA WY2001C01KSA001P	1	1000	51.2	56.2	62.0	11450
MVIE21CXSWY2003C035SA001P	3	35	32.6	36.6	41.0	3400
MVIE21CXSWY2003C050SA001P	3	50	36.1	41.1	46.0	4500
MVIE21CXSWY2003C070SA001P	3	70	39.7	44.7	50.0	5400
MVIE21CXSWY2003C095SA001P	3	95	43.6	48.6	54.0	6500
MVIE21CXSWY2003C120SA001P	3	120	47.1	52.1	58.0	7600
MVIE21CXSWY2003C150SA001P	3	150	50.9	55.9	62.0	8850
MVIE21CXSWY2003C185SA001P	3	185	54.7	59.7	66.0	10200
MVIE21CXSWY2003C240SA001P	3	240	60.6	65.6	72.0	12500
MVIE21CXSWY2003C300SA001P	3	300	67.1	73.4	80.0	15950
MVIE21CXSWY2003C400SA001P	3	400	75.3	81.6	89.0	19800

**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	Flat	Trefoil	In Ducts	In air at 30°C	
No.	mm <sup>2</sup>	Ω/km	Ω/km	μF/km	mH/km	Ω/km	Flat	Trefoil	Flat	Trefoil	Amps	
1	35	0.524	0.668	0.25	0.42	0.13	172	166	159	157	203	198
1	50	0.387	0.494	0.29	0.39	0.12	203	196	188	186	243	238

**POLYCAP MV CU IEC 60502-2 3.6/6 KV**  
**Medium Voltage Copper Armoured Cable, 3.6/6 (7.2) KV AC**

**POLYCAP**  
 IDEAS. CONNECTED.

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	Flat	Trefoil	Flat	Trefoil	Flat	Trefoil
1	70	0.268	0.342	0.33	0.37	0.12	246	239	229	227	303	296
1	95	0.193	0.247	0.38	0.36	0.11	293	285	274	271	369	361
1	120	0.153	0.196	0.41	0.34	0.11	332	323	311	308	426	417
1	150	0.124	0.159	0.46	0.33	0.10	366	361	347	343	481	473
1	185	0.0991	0.127	0.50	0.33	0.10	410	406	391	387	550	543
1	240	0.0754	0.097	0.54	0.31	0.10	470	469	453	447	647	641
1	300	0.0601	0.078	0.57	0.31	0.10	524	526	510	504	739	735
1	400	0.0470	0.062	0.61	0.30	0.09	572	590	571	564	837	845
1	500	0.0366	0.052	0.71	0.24	0.08	660	655	640	635	970	960
1	630	0.0283	0.042	0.78	0.24	0.07	735	730	715	710	1110	1100
1	800	0.0221	0.036	0.87	0.23	0.07	770	820	800	790	1260	1250
1	1000	0.0176	0.032	0.96	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
3	35	0.524	0.668	0.25	0.42	0.090	154	134	172
3	50	0.387	0.494	0.29	0.32	0.096	181	158	205
3	70	0.268	0.342	0.33	0.30	0.092	220	194	253
3	95	0.193	0.247	0.38	0.29	0.088	263	232	307
3	120	0.153	0.196	0.41	0.28	0.085	298	264	352
3	150	0.124	0.159	0.46	0.27	0.083	332	296	397
3	185	0.0991	0.127	0.50	0.26	0.081	374	335	453
3	240	0.0754	0.097	0.54	0.26	0.079	431	387	529
3	300	0.0601	0.078	0.57	0.25	0.078	482	435	599
3	400	0.0470	0.062	0.61	0.25	0.077	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

**POLY CAB MV CU IEC 60502-2 3.6/6 KV  
Medium Voltage Copper Armoured Cable, 3.6/6 (7.2) KV AC**

**POLY CAB**  
IDEAS. CONNECTED.

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