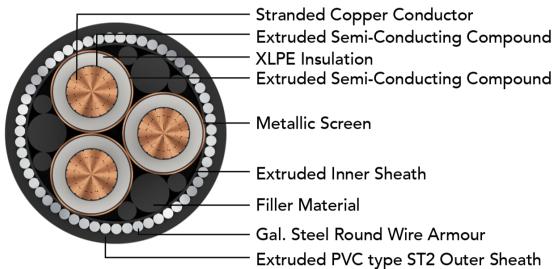


# POLY CAB MV AL IEC 60502-2 3.6/6 KV Medium Voltage Aluminium Armoured Cable, 3.6/6 (7.2) KV AC

**POLY CAB**  
IDEAS. CONNECTED.



Images not to scale. Follow table for dimensions

## APPLICATION

POLY CAB MV 3.6/6 KV XLPE insulated with Aluminium 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 Aluminium 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

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 AL IEC 60502-2 3.6/6 KV  
Medium Voltage Aluminium 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	mm	Kg/Km
MVIE21AXAWY2001C035SA001P	1	35	16.3	19.5	23	650
MVIE21AXAWY2001C050SA001P	1	50	17.8	21.0	25	750
MVIE21AXAWY2001C070SA001P	1	70	19.4	22.6	27	900
MVIE21AXAWY2001C095SA001P	1	95	21.2	24.4	29	1050
MVIE21AXAWY2001C120SA001P	1	120	22.8	26.0	30	1150
MVIE21AXAWY2001C150SA001P	1	150	24.5	27.7	32	1350
MVIE21AXAWY2001C185SA001P	1	185	26.2	30.2	35	1550
MVIE21AXAWY2001C240SA001P	1	240	28.8	32.8	37	1850
MVIE21AXAWY2001C300SA001P	1	300	31.7	35.7	40	2150
MVIE21AXAWY2001C400SA001P	1	400	35.3	39.3	44	2600
MVIE21AXAWY2001C500SA001P	1	500	39.2	44.2	49	3300
MVIE21AXAWY2001C630SA001P	1	630	42.9	47.9	53	3850
MVIE21AXAWY2001C800SA001P	1	800	46.9	51.9	57	4550
MVIE21AXAWY2001C01KSA001P	1	1000	51.2	56.2	62	5400
MVIE21AXSWY2003C035SA001P	3	35	32.6	36.6	41	2750
MVIE21AXSWY2003C050SA001P	3	50	36.1	41.1	46	3550
MVIE21AXSWY2003C070SA001P	3	70	39.7	44.7	50	4100
MVIE21AXSWY2003C095SA001P	3	95	43.6	48.6	54	4700
MVIE21AXSWY2003C120SA001P	3	120	47.1	52.1	58	5350
MVIE21AXSWY2003C150SA001P	3	150	50.9	55.9	62	6000
MVIE21AXSWY2003C185SA001P	3	185	54.7	59.7	66	6700
MVIE21AXSWY2003C240SA001P	3	240	60.6	65.6	72	7950
MVIE21AXSWY2003C300SA001P	3	300	67.1	73.4	80	10200
MVIE21AXSWY2003C400SA001P	3	400	75.3	81.6	89	12250

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

**POLY CAB**  
IDEAS. CONNECTED.

**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 single-way ducts	In air at 30°C	Flat	Trefoil	Flat
No.	mm <sup>2</sup>	Ω/km	Ω/km	μF/km	mH/km	Ω/km	Amps					
1	35	0.868	1.113	0.25	0.42	0.13	134	129	123	122	157	154
1	50	0.641	0.822	0.29	0.39	0.12	157	152	146	142	189	184
1	70	0.443	0.568	0.33	0.37	0.12	192	186	178	176	236	230
1	95	0.320	0.410	0.38	0.36	0.11	229	221	213	210	287	280
1	120	0.253	0.325	0.41	0.34	0.11	260	252	242	240	332	324
1	150	0.206	0.264	0.46	0.33	0.10	288	281	271	267	376	368
1	185	0.164	0.211	0.50	0.33	0.10	324	317	307	303	432	424
1	240	0.125	0.161	0.54	0.31	0.10	373	367	356	351	511	502
1	300	0.100	0.129	0.57	0.31	0.10	419	414	402	397	586	577
1	400	0.0778	0.101	0.61	0.30	0.09	466	470	457	451	676	673
1	500	0.0605	0.080	0.71	0.24	0.08	525	530	510	505	760	750
1	630	0.0469	0.063	0.78	0.24	0.07	580	585	560	555	860	850
1	800	0.0367	0.051	0.87	0.23	0.07	650	655	620	615	960	950
1	1000	0.0291	0.042	0.96	0.22	0.07	715	705	670	665	1060	1050

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 a buried duct	In air at 30°C
No.	mm <sup>2</sup>	Ω/km	Ω/km	μF/km	mH/km	Ω/km	Amps		
3	35	0.868	1.113	0.25	0.42	0.090	119	103	132
3	50	0.641	0.822	0.29	0.32	0.096	140	122	158
3	70	0.443	0.568	0.33	0.30	0.092	171	150	196
3	95	0.320	0.410	0.38	0.29	0.088	203	179	236
3	120	0.253	0.325	0.41	0.28	0.085	232	205	273
3	150	0.206	0.264	0.46	0.27	0.083	260	231	309
3	185	0.164	0.211	0.50	0.26	0.081	294	262	355
3	240	0.125	0.161	0.54	0.26	0.079	340	305	415

Document No.: 00434. Rev No.: 00 Date: 06-01-2024 / We reserve the rights to make technical changes.

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

**POLY CAB**  
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 a buried duct	In air at 30°C
No.	mm <sup>2</sup>	Ω/km	Ω/km	μF/km	mH/km	Ω/km	Amps		
3	300	0.100	0.129	0.57	0.25	0.078	384	346	475
3	400	0.0778	0.101	0.61	0.25	0.077	438	398	552

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