

## POLYCARB MEDIUM VOLTAGE HIGH TENSION CABLE CONFORMING TO IEC 60502 - 2



Polycarb Medium Voltage High Tension cables of voltage grade ranging from 3.6 kV to 36 kV are widely used for power distribution, external and direct burial applications in power network system, underground, in cable ducting and in direct burial condition. These cables are available with XLPE insulation having temperature rating of 90°C.

These cables are halogen free flame retardant in characteristic and provide continuous load and Extraprotection from short circuit and Fire.

Conductor: High conductivity annealed plain stranded compacted aluminium / copper conductor produced in-house from state-of-the art machine.

Conductor Screen: an extruded layer of cross-linkable semi conducting compound to eliminate sharp points on conductor surface and also nullifies chance of electric discharge at interface between conductor / insulation

Insulation: In-house developed high insulation resistance cross-linked polyethylene thermoset insulation compound.

Non-metallic Insulation Screen: an extruded layer of cross-linkable semi conducting compound, applied in triple extrusion with conductor screen and insulation extrusion, to eliminate micro voids and curing resulting longer life of cables

Metallic Screen: a helically applied copper tape screen to carry fault current

Laying Up: in case of 3 cores Cable, insulated cores laid up together with in-house developed fillers to maintain circularity of cable

Inner Sheath: In-house developed thermoplastic PVC compound/ halogen free compound having low emission of smoke and corrosive gases when exposed to fire and also ensures circular shape of cable  
Armour: Aluminium / Galvanised Steel Round Wire Armoured to give mechanical protection and also acts as return path for earth fault current

Outer Sheath: In-house developed thermoplastic compound having low emission of smoke and corrosive gases when exposed to fire.

The construction is based on the application and requirement of the user against IEC 60502-2 / BS 6622.



[POLYCAB MV CU IEC 60502-2 3.6/6.0 KV - Medium Voltage Armoured Cable, 3.6/6.0 \(7.2\) KV AC](#)



[POLYCAB MV CU IEC 60502-2 6.0/10 KV - Medium Voltage Armoured Cable, 6.0/10 \(12\) KV AC](#)



[POLYCAB MV CU IEC 60502-2 8.7/15 KV - Medium Voltage Armoured Cable, 8.7/15 \(17.5\) KV AC](#)



[POLYCAB MV CU IEC 60502-2 12/20 KV - Medium Voltage Armoured Cable, 12/20 \(24\) KV AC](#)



[POLYCAB MV CU IEC 60502-2 18/30 KV - Medium Voltage Armoured Cable, 18/30 \(36\) KV AC](#)



[POLYCAB MV AL IEC 60502-2 3.6/6.0 KV - Medium Voltage Armoured Cable, 3.6/6.0 \(7.2\) KV AC](#)



[POLYCAB MV AL IEC 60502-2 6.0/10 KV - Medium Voltage Armoured Cable, 6.0/10 \(12\) KV AC](#)



[POLYCAB MV AL IEC 60502-2 8.7/15 KV - Medium Voltage Armoured Cable, 8.7/15 \(17.5\) KV AC](#)



[POLYCAB MV AL IEC 60502-2 12/20 KV - Medium Voltage Armoured Cable, 12/20 \(24\) KV AC](#)



[POLYCAB MV AL IEC 60502-2 18/30 KV - Medium Voltage Armoured Cable, 18/30 \(36\) KV AC](#)

# POLYCAB MV CU IEC 60502-2 3.6/6 KV

## Medium Voltage Copper Armoured Cable, 3.6/6 (7.2) KV AC

### Single Core



### Three Core



### Outstanding Features

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

### Application

POLYCAB 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.

### 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

### Standard and References:

IEC 60228

IEC 60502-2

BS 6622

### Test Voltage

12.5kV AC 50 Hz

### Impulse Test Voltage

Peak 60kV AC

### Compliance

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

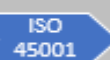
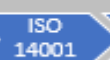
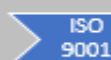


### Bending Radius:

Fixed Installation: 12D

D is overall diameter of cable

### OUR ACCREDITATION



## POLYCAB MV CU IEC 60502-2 3.6/6 KV

### Medium Voltage Copper Armoured Cable, 3.6/6 (7.2) 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
MVIE21CXAWY2001C035SA001P	1	35	16.3	19.5	23.0	950
MVIE21CXAWY2001C050SA001P	1	50	17.8	21.0	25.0	1100
MVIE21CXAWY2001C070SA001P	1	70	19.4	22.6	27.0	1350
MVIE21CXAWY2001C095SA001P	1	95	21.2	24.4	29.0	1600
MVIE21CXAWY2001C120SA001P	1	120	22.8	26	30.0	1900
MVIE21CXAWY2001C150SA001P	1	150	24.5	27.7	32.0	2250
MVIE21CXAWY2001C185SA001P	1	185	26.2	30.2	35.0	2700
MVIE21CXAWY2001C240SA001P	1	240	28.8	32.8	37.0	3350
MVIE21CXAWY2001C300SA001P	1	300	31.7	35.7	40.0	4050
MVIE21CXAWY2001C400SA001P	1	400	35.3	39.3	44.0	5050
MVIE21CXAWY2001C500SA001P	1	500	39.2	44.2	49.0	6400
MVIE21CXAWY2001C630SA001P	1	630	42.9	47.9	53.0	7700
MVIE21CXAWY2001C800SA001P	1	800	46.9	51.9	57.0	9450
MVIE21CXAWY2001C01KSA001P	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

#### OUR ACCREDITATION



# POLYCAB MV CU IEC 60502-2 3.6/6 KV

## Medium Voltage Copper Armoured Cable, 3.6/6 (7.2) 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	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
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
								Amps		
No.	mm <sup>2</sup>	Ω/km	Ω/km	μF/km	mH/km	Ω/km	Amps			
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  
 Thermal resistivity of earthenware ducts 1.2 K.m/W  
 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

### OUR ACCREDITATION



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

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

#### Single Core



#### Three Core



#### Outstanding Features

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

#### 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.

#### 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

#### Standard and References:

IEC 60228

IEC 60502-2

BS 6622

#### Test Voltage

21kV AC 50 Hz

#### Impulse Test Voltage

Peak 75kV AC

#### 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

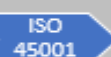
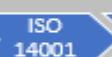
#### Bending Radius:

Fixed Installation: 12D

D is overall diameter of cable



#### OUR ACCREDITATION



## 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

#### OUR ACCREDITATION



## 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		
No.	mm <sup>2</sup>	Ω/km	Ω/km	μF/km	mH/km	Ω/km	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
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

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

#### OUR ACCREDITATION





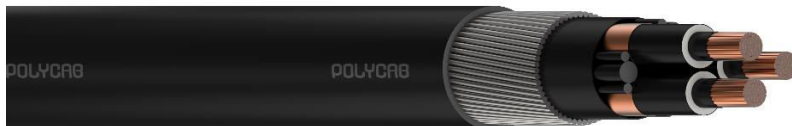
## POLYCAB MV CU IEC 60502-2 8.7/15 KV

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

#### Single Core



#### Three Core



#### Outstanding Features

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

#### 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.

#### 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

#### Standard and References:

IEC 60228

IEC 60502-2

BS 6622

#### Test Voltage

30.5kV AC 50Hz

#### Impulse Test Voltage

Peak 95kV AC

#### Compliance

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

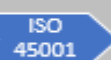


#### Bending Radius:

Fixed Installation: 12D

D is overall diameter of cable

#### OUR ACCREDITATION



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

### Medium Voltage Copper Armoured Cable, 8.7/15 (17.5) 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
MVIE23CXAWY2001C050SA001P	1	50	21.8	25.0	29.0	1300
MVIE23CXAWY2001C070SA001P	1	70	23.4	26.6	30.0	1600
MVIE23CXAWY2001C095SA001P	1	95	25.2	29.2	33.0	1950
MVIE23CXAWY2001C120SA001P	1	120	26.8	30.8	35.0	2200
MVIE23CXAWY2001C150SA001P	1	150	28.5	32.5	37.0	2600
MVIE23CXAWY2001C185SA001P	1	185	30.2	34.2	39.0	3000
MVIE23CXAWY2001C240SA001P	1	240	32.6	36.6	41.0	3650
MVIE23CXAWY2001C300SA001P	1	300	35.1	39.1	44.0	4300
MVIE23CXAWY2001C400SA001P	1	400	38.5	43.5	49.0	5350
MVIE23CXAWY2001C500SA001P	1	500	41.8	46.8	52.0	6700
MVIE23CXAWY2001C630SA001P	1	630	45.4	50.4	56.0	8050
MVIE23CXAWY2001C800SA001P	1	800	49.7	54.7	60.0	9850
MVIE23CXAWY2001C01KSA001P	1	1000	54.2	59.2	65.0	11950
MVIE23CXSWY2003C035SA001P	3	35	38.1	43.1	48.0	4900
MVIE23CXSWY2003C050SA001P	3	50	40.2	45.2	50.0	5700
MVIE23CXSWY2003C070SA001P	3	70	43.6	48.6	54.0	6650
MVIE23CXSWY2003C095SA001P	3	95	47.7	52.7	59.0	7850
MVIE23CXSWY2003C120SA001P	3	120	51.2	56.2	62.0	8950
MVIE23CXSWY2003C150SA001P	3	150	55.0	60.0	66.0	10300
MVIE23CXSWY2003C185SA001P	3	185	58.8	63.8	70.0	12550
MVIE23CXSWY2003C240SA001P	3	240	64.3	70.6	77.0	14950
MVIE23CXSWY2003C300SA001P	3	300	69.9	76.2	83.0	17500
MVIE23CXSWY2003C400SA001P	3	400	77.0	83.3	91.0	21100

#### OUR ACCREDITATION



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

### Medium Voltage Copper Armoured Cable, 8.7/15 (17.5) 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	0.19	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
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		
No.	mm <sup>2</sup>	Ω/km	Ω/km	μF/km	mH/km	Ω/km	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

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

#### OUR ACCREDITATION



## POLYCAB MV CU IEC 60502-2 12/20 KV

### Medium Voltage Copper Armoured Cable, 12/20 (24) KV AC

#### Single Core



#### Three Core



#### Outstanding Features

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

#### Application

POLYCAB MV 12/20 KV XLPE insulated with copper conductor single & multi core cable is suitable to use for power networks, underground and in cable ducting.

#### Voltage Rating

Nominal Voltage: 12/20 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

#### Standard and References:

IEC 60228

IEC 60502-2

BS 6622

#### Test Voltage

42kV AC 50 Hz

#### Impulse Test Voltage

Peak 125kV AC

#### Compliance

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

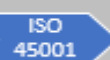
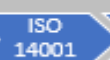
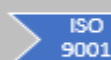


#### Bending Radius:

Fixed Installation: 12D

D is overall diameter of cable

#### OUR ACCREDITATION



## POLYCAB MV CU IEC 60502-2 12/20 KV

### Medium Voltage Copper Armoured Cable, 12/20 (24) 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
MVIE20CXAWY2001C050SA001P	1	50	23.8	27.0	31.0	1500
MVIE20CXAWY2001C070SA001P	1	70	25.4	29.4	33.0	1800
MVIE20CXAWY2001C095SA001P	1	95	27.2	31.2	35.0	2100
MVIE20CXAWY2001C120SA001P	1	120	28.8	32.8	37.0	2400
MVIE20CXAWY2001C150SA001P	1	150	30.5	34.5	39.0	2800
MVIE20CXAWY2001C185SA001P	1	185	32.2	36.2	41.0	3200
MVIE20CXAWY2001C240SA001P	1	240	34.6	38.6	43.0	3800
MVIE20CXAWY2001C300SA001P	1	300	37.3	42.3	47.0	4700
MVIE20CXAWY2001C400SA001P	1	400	40.5	45.5	51.0	5700
MVIE20CXAWY2001C500SA001P	1	500	44.0	49.0	54.0	6950
MVIE20CXAWY2001C630SA001P	1	630	47.4	52.4	58.0	8300
MVIE20CXAWY2001C800SA001P	1	800	51.7	56.7	63.0	10100
MVIE20CXAWY2001C01KSA001P	1	1000	56.2	61.2	67.0	12200
MVIE20CXSWY2003C050SA001P	3	50	49.6	54.6	60.0	6350
MVIE20CXSWY2003C070SA001P	3	70	53.1	58.1	64.0	7350
MVIE20CXSWY2003C095SA001P	3	95	57.1	62.1	69.0	8550
MVIE20CXSWY2003C120SA001P	3	120	60.5	66.8	73.0	10500
MVIE20CXSWY2003C150SA001P	3	150	64.4	70.7	78.0	11900
MVIE20CXSWY2003C185SA001P	3	185	68.2	74.5	82.0	13450
MVIE20CXSWY2003C240SA001P	3	240	73.8	80.1	88.0	15800
MVIE20CXSWY2003C300SA001P	3	300	79.2	85.5	93.0	18400
MVIE20CXSWY2003C400SA001P	3	400	86.5	92.8	101.0	22050

#### OUR ACCREDITATION



## POLYCAB MV CU IEC 60502-2 12/20 KV

### Medium Voltage Copper Armoured Cable, 12/20 (24) 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	0.17	0.44	0.14	203	196	188	186	243	238
1	70	0.268	0.342	0.19	0.42	0.13	246	239	229	227	303	296
1	95	0.193	0.247	0.21	0.40	0.13	293	285	274	271	369	361
1	120	0.153	0.196	0.23	0.38	0.12	332	323	311	308	426	417
1	150	0.124	0.159	0.25	0.37	0.12	366	361	347	343	481	473
1	185	0.0991	0.127	0.27	0.36	0.11	410	406	391	387	550	543
1	240	0.0754	0.097	0.30	0.34	0.11	470	469	453	447	647	641
1	300	0.0601	0.078	0.33	0.34	0.11	524	526	510	504	739	735
1	400	0.0470	0.062	0.37	0.33	0.10	572	590	571	564	837	845
1	500	0.0366	0.052	0.44	0.26	0.08	660	655	640	635	970	960
1	630	0.0283	0.042	0.48	0.26	0.08	735	730	715	710	1110	1100
1	800	0.0221	0.036	0.53	0.25	0.08	770	820	800	790	1260	1250
1	1000	0.0176	0.032	0.59	0.24	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		
No.	mm <sup>2</sup>	Ω/km	Ω/km	μF/km	mH/km	Ω/km	Amps		
3	50	0.387	0.494	0.17	0.37	0.12	181	158	205
3	70	0.268	0.342	0.19	0.35	0.11	220	194	253
3	95	0.193	0.247	0.21	0.34	0.11	263	232	307
3	120	0.153	0.196	0.23	0.32	0.10	298	264	352
3	150	0.124	0.159	0.25	0.31	0.10	332	296	397
3	185	0.0991	0.127	0.27	0.30	0.10	374	335	453
3	240	0.0754	0.097	0.30	0.29	0.09	431	387	529
3	300	0.0601	0.078	0.33	0.28	0.09	482	435	599
3	400	0.0470	0.062	0.37	0.27	0.09	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

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

#### OUR ACCREDITATION



# POLYCAB MV CU IEC 60502-2 18/30 KV

## Medium Voltage Copper Armoured Cable, 18/30 (36) KV AC

### Single Core



### Three Core



### Outstanding Features

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

### Application

POLYCAB medium voltage power cables are for power networks, underground, in cable ducting and also suitable for direct burial.

### Voltage Rating

Nominal Voltage: 18/30 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

### Standard and References:

IEC 60228  
IEC 60502-2  
BS 6622

### Test Voltage

63kV AC 50 Hz

### Impulse Test Voltage

Peak 170kV AC

### Compliance

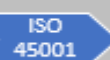
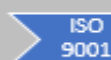
- Conductor resistance IEC 60228
- Insulation resistance IEC 60502-2
- Flammability test IEC 60332-1-2
- Partial Discharge test IEC 60502-2



### Bending Radius:

Fixed Installation: 12D  
D is overall diameter of cable

### OUR ACCREDITATION



## POLYCAB MV CU IEC 60502-2 18/30 KV

### Medium Voltage Copper Armoured Cable, 18/30 (36) 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
MVIE19CXAWY2001C050SA001P	1	50	28.8	32.8	37.0	1900
MVIE19CXAWY2001C070SA001P	1	70	30.4	34.4	39.0	2150
MVIE19CXAWY2001C095SA001P	1	95	32.2	36.2	41.0	2500
MVIE19CXAWY2001C120SA001P	1	120	33.8	37.8	42.0	2850
MVIE19CXAWY2001C150SA001P	1	150	35.7	40.7	46.0	3400
MVIE19CXAWY2001C185SA001P	1	185	37.4	42.4	47.0	3800
MVIE19CXAWY2001C240SA001P	1	240	39.8	44.8	50.0	4450
MVIE19CXAWY2001C300SA001P	1	300	42.5	47.5	53.0	5250
MVIE19CXAWY2001C400SA001P	1	400	45.7	50.7	56.0	6300
MVIE19CXAWY2001C500SA001P	1	500	49.2	54.2	60.0	7550
MVIE19CXAWY2001C630SA001P	1	630	52.6	57.6	63.0	8950
MVIE19CXAWY2001C800SA001P	1	800	56.9	61.9	68.0	10800
MVIE19CXAWY2001C01KSA001P	1	1000	61.4	66.4	73.0	12950
MVIE19CXSWY2003C050SA001P	3	50	60.8	67.1	74.0	8950
MVIE19CXSWY2003C070SA001P	3	70	64.3	70.6	78.0	10050
MVIE19CXSWY2003C095SA001P	3	95	68.3	74.6	82.0	11400
MVIE19CXSWY2003C120SA001P	3	120	71.9	78.2	86.0	12650
MVIE19CXSWY2003C150SA001P	3	150	75.6	81.9	90.0	14150
MVIE19CXSWY2003C185SA001P	3	185	79.4	85.7	94.0	15750
MVIE19CXSWY2003C240SA001P	3	240	85.0	91.3	100.0	18250
MVIE19CXSWY2003C300SA001P	3	300	90.6	96.9	106.0	21050
MVIE19CXSWY2003C400SA001P	3	400	97.7	104.0	113.0	24900

#### OUR ACCREDITATION





# POLYCAB MV CU IEC 60502-2 18/30 KV

## Medium Voltage Copper Armoured Cable, 18/30 (36) 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	0.13	0.47	0.15	203	196	188	186	243	238
1	70	0.268	0.342	0.15	0.45	0.14	246	239	229	227	303	296
1	95	0.193	0.247	0.16	0.43	0.14	293	285	274	271	369	361
1	120	0.153	0.196	0.18	0.41	0.13	332	323	311	308	426	417
1	150	0.124	0.159	0.19	0.40	0.13	366	361	347	343	481	473
1	185	0.0991	0.127	0.21	0.39	0.12	410	406	391	387	550	543
1	240	0.0754	0.097	0.23	0.37	0.12	470	469	453	447	647	641
1	300	0.0601	0.078	0.25	0.36	0.11	524	526	510	504	739	735
1	400	0.0470	0.062	0.28	0.35	0.11	572	590	571	564	837	845
1	500	0.0366	0.052	0.32	0.28	0.09	660	655	640	635	970	960
1	630	0.0283	0.042	0.35	0.27	0.09	735	730	715	710	1110	1100
1	800	0.0221	0.036	0.39	0.26	0.08	770	820	800	790	1260	1250
1	1000	0.0176	0.032	0.42	0.25	0.08	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		
No.	mm <sup>2</sup>	Ω/km	Ω/km	μF/km	mH/km	Ω/km	Amps		
3	50	0.387	0.494	0.13	0.41	0.13	181	158	205
3	70	0.268	0.342	0.15	0.39	0.12	220	194	253
3	95	0.193	0.247	0.16	0.37	0.12	263	232	307
3	120	0.153	0.196	0.18	0.36	0.11	298	264	352
3	150	0.124	0.159	0.19	0.35	0.11	332	296	397
3	185	0.0991	0.127	0.21	0.34	0.11	374	335	453
3	240	0.0754	0.097	0.23	0.32	0.10	431	387	529
3	300	0.0601	0.078	0.25	0.31	0.10	482	435	599
3	400	0.0470	0.062	0.28	0.30	0.09	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

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

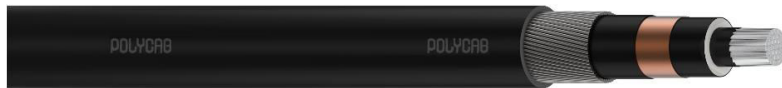
### OUR ACCREDITATION



## POLYCAB MV AL IEC 60502-2 3.6/6 KV

### Medium Voltage Aluminium Armoured Cable, 3.6/6 (7.2) KV AC

#### Single Core



#### Three Core



#### Outstanding Features

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

#### Application

POLYCAB 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.

#### 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

#### Standard and References:

IEC 60228

IEC 60502-2

BS 6622

#### Test Voltage

12.5kV AC 50 Hz

#### Impulse Test Voltage

Peak 60kV AC

#### Compliance

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

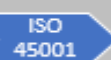
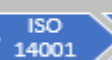
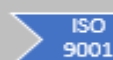


#### Bending Radius:

Fixed Installation: 12D

D is overall diameter of cable

#### OUR ACCREDITATION



## POLYCAB MV AL IEC 60502-2 3.6/6 KV

### Medium Voltage Aluminium Armoured Cable, 3.6/6 (7.2) KV AC

#### DIMENSIONS AND WEIGHTS:

Product Code	No. of Cores	Core Cross sectional Area mm <sup>2</sup>	Nominal Diameter			Weight (Approx.) Kg/Km
			Under armour mm	Over armour mm	Overall mm	
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

#### OUR ACCREDITATION



# POLYCAB MV AL IEC 60502-2 3.6/6 KV

## Medium Voltage Aluminium Armoured Cable, 3.6/6 (7.2) 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 single-way 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	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
							Amps		
No.	mm <sup>2</sup>	Ω/km	Ω/km	μF/km	mH/km	Ω/km			
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
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  
 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

### OUR ACCREDITATION



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

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

#### Single Core



#### Three Core



#### Outstanding Features

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

#### Application

POLYCAB MV 6/10 KV XLPE insulated with Aluminium conductor single & multi core cable is suitable to use for power networks, underground and in cable ducting.

#### Voltage Rating

Nominal Voltage: 6/10 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

#### Standard and References:

IEC 60228

IEC 60502-2

BS 6622

#### Test Voltage

21kV AC 50 Hz

#### Impulse Test Voltage

Peak 75kV AC

#### 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



#### Bending Radius:

Fixed Installation: 12D

D is overall diameter of cable

#### OUR ACCREDITATION



ISO  
9001

ISO  
14001

ISO  
45001

NABL

ABS

IRS

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

### Medium Voltage Aluminium 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
MVIE22AXAWY2001C050SA001P	1	50	19.6	22.8	26.0	850
MVIE22AXAWY2001C070SA001P	1	70	21.2	24.4	28.0	1000
MVIE22AXAWY2001C095SA001P	1	95	23.0	26.2	30.0	1150
MVIE22AXAWY2001C120SA001P	1	120	24.6	27.8	32.0	1300
MVIE22AXAWY2001C150SA001P	1	150	26.3	30.3	35.0	1550
MVIE22AXAWY2001C185SA001P	1	185	28.0	32.0	36.0	1700
MVIE22AXAWY2001C240SA001P	1	240	30.4	34.4	39.0	1950
MVIE22AXAWY2001C300SA001P	1	300	32.9	36.9	41.0	2250
MVIE22AXAWY2001C400SA001P	1	400	36.1	40.1	45.0	2700
MVIE22AXAWY2001C500SA001P	1	500	39.6	44.6	50.0	3350
MVIE22AXAWY2001C630SA001P	1	630	43.2	48.2	54.0	3900
MVIE22AXAWY2001C800SA001P	1	800	47.3	52.3	58.0	4600
MVIE22AXAWY2001C01KSA001P	1	1000	51.8	56.8	63.0	5450
MVIE22AXSWY2003C050SA001P	3	50	40.2	45.2	50.0	4100
MVIE22AXSWY2003C070SA001P	3	70	43.6	48.6	54.0	4600
MVIE22AXSWY2003C095SA001P	3	95	47.7	52.7	59.0	5300
MVIE22AXSWY2003C120SA001P	3	120	51.2	56.2	62.0	5950
MVIE22AXSWY2003C150SA001P	3	150	55.0	60.0	66.0	6650
MVIE22AXSWY2003C185SA001P	3	185	58.8	63.8	70.0	7400
MVIE22AXSWY2003C240SA001P	3	240	64.3	70.6	77.0	9450
MVIE22AXSWY2003C300SA001P	3	300	69.9	76.2	83.0	10750
MVIE22AXSWY2003C400SA001P	3	400	77.0	83.3	91.0	12600

#### OUR ACCREDITATION



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

### Medium Voltage Aluminium 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	0.641	0.822	0.23	0.41	0.13	157	152	146	142	189	184
1	70	0.443	0.568	0.26	0.39	0.12	192	186	178	176	236	230
1	95	0.320	0.410	0.30	0.37	0.12	229	221	213	210	287	280
1	120	0.253	0.325	0.33	0.35	0.11	260	252	242	240	332	324
1	150	0.206	0.264	0.36	0.35	0.11	288	281	271	267	376	368
1	185	0.164	0.211	0.39	0.34	0.11	324	317	307	303	432	424
1	240	0.125	0.161	0.44	0.32	0.10	373	367	356	351	511	502
1	300	0.100	0.129	0.49	0.31	0.10	419	414	402	397	586	577
1	400	0.0778	0.101	0.55	0.30	0.09	466	470	457	451	676	673
1	500	0.0605	0.080	0.67	0.25	0.08	525	530	510	505	760	750
1	630	0.0469	0.063	0.74	0.24	0.08	580	585	560	555	860	850
1	800	0.0367	0.051	0.82	0.23	0.07	650	655	620	615	960	950
1	1000	0.0291	0.042	0.91	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 Ducts	In air at 30°C
							Amps		
No.	mm <sup>2</sup>	Ω/km	Ω/km	μF/km	mH/km	Ω/km	Amps		
3	50	0.641	0.822	0.23	0.33	0.10	140	122	158
3	70	0.443	0.568	0.26	0.31	0.10	171	150	196
3	95	0.320	0.410	0.30	0.30	0.09	203	179	236
3	120	0.253	0.325	0.33	0.29	0.09	232	205	273
3	150	0.206	0.264	0.36	0.28	0.09	260	231	309
3	185	0.164	0.211	0.39	0.27	0.09	294	262	355
3	240	0.125	0.161	0.44	0.26	0.08	340	305	415
3	300	0.100	0.129	0.49	0.26	0.08	384	346	475
3	400	0.0778	0.101	0.55	0.25	0.08	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

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

#### OUR ACCREDITATION



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

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

#### Single Core



#### Three Core



#### Outstanding Features

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

#### Application

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

#### 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 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

#### Standard and References:

IEC 60228

IEC 60502-2

BS 6622

#### Test Voltage

30.5kV AC 50Hz

#### Impulse Test Voltage

Peak 95kV AC

#### Compliance

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

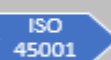
#### Bending Radius:

Fixed Installation: 12D

D is overall diameter of cable



#### OUR ACCREDITATION





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

### Medium Voltage Aluminium Armoured Cable, 8.7/15 (17.5) 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
MVIE23AXAWY2001C050SA001P	1	50	21.8	25.0	29.0	1000
MVIE23AXAWY2001C070SA001P	1	70	23.4	26.6	30.0	1100
MVIE23AXAWY2001C095SA001P	1	95	25.2	29.2	33.0	1350
MVIE23AXAWY2001C120SA001P	1	120	26.8	30.8	35.0	1550
MVIE23AXAWY2001C150SA001P	1	150	28.5	32.5	37.0	1700
MVIE23AXAWY2001C185SA001P	1	185	30.2	34.2	39.0	1900
MVIE23AXAWY2001C240SA001P	1	240	32.6	36.6	41.0	2150
MVIE23AXAWY2001C300SA001P	1	300	35.1	39.1	44.0	2450
MVIE23AXAWY2001C400SA001P	1	400	38.5	43.5	49.0	3100
MVIE23AXAWY2001C500SA001P	1	500	41.8	46.8	52.0	3550
MVIE23AXAWY2001C630SA001P	1	630	45.4	50.4	56.0	4150
MVIE23AXAWY2001C800SA001P	1	800	49.7	54.7	60.0	4900
MVIE23AXAWY2001C01KSA001P	1	1000	54.2	59.2	65.0	5800
MVIE23AXSWY2003C050SA001P	3	50	40.2	45.2	50.0	4750
MVIE23AXSWY2003C070SA001P	3	70	43.6	48.6	54.0	5350
MVIE23AXSWY2003C095SA001P	3	95	47.7	52.7	59.0	6050
MVIE23AXSWY2003C120SA001P	3	120	51.2	56.2	62.0	6700
MVIE23AXSWY2003C150SA001P	3	150	55.0	60.0	66.0	7450
MVIE23AXSWY2003C185SA001P	3	185	58.8	63.8	70.0	9050
MVIE23AXSWY2003C240SA001P	3	240	64.3	70.6	77.0	10400
MVIE23AXSWY2003C300SA001P	3	300	69.9	76.2	83.0	11750
MVIE23AXSWY2003C400SA001P	3	400	77.0	83.3	91.0	13700

#### OUR ACCREDITATION



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

### Medium Voltage Aluminium Armoured Cable, 8.7/15 (17.5) 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	0.641	0.822	0.19	0.42	0.13	157	152	146	142	189	184
1	70	0.443	0.568	0.22	0.40	0.13	192	186	178	176	236	230
1	95	0.320	0.410	0.24	0.39	0.12	229	221	213	210	287	280
1	120	0.253	0.325	0.27	0.37	0.12	260	252	242	240	332	324
1	150	0.206	0.264	0.29	0.36	0.11	288	281	271	267	376	368
1	185	0.164	0.211	0.32	0.35	0.11	324	317	307	303	432	424
1	240	0.125	0.161	0.35	0.34	0.11	373	367	356	351	511	502
1	300	0.100	0.129	0.39	0.32	0.10	419	414	402	397	586	577
1	400	0.0778	0.101	0.44	0.32	0.10	466	470	457	451	676	673
1	500	0.0605	0.080	0.52	0.26	0.08	525	530	510	505	760	750
1	630	0.0469	0.063	0.57	0.25	0.08	580	585	560	555	860	850
1	800	0.0367	0.051	0.64	0.24	0.07	650	655	620	615	960	950
1	1000	0.0291	0.042	0.70	0.23	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 Ducts	In air at 30°C
							Amps		
No.	mm <sup>2</sup>	Ω/km	Ω/km	μF/km	mH/km	Ω/km	Amps		
3	50	0.641	0.822	0.19	0.35	0.11	140	122	158
3	70	0.443	0.568	0.22	0.34	0.11	171	150	196
3	95	0.320	0.410	0.24	0.32	0.10	203	179	236
3	120	0.253	0.325	0.27	0.31	0.10	232	205	273
3	150	0.206	0.264	0.29	0.30	0.09	260	231	309
3	185	0.164	0.211	0.32	0.29	0.09	294	262	355
3	240	0.125	0.161	0.35	0.28	0.09	340	305	415
3	300	0.100	0.129	0.39	0.27	0.09	384	346	475
3	400	0.0778	0.101	0.44	0.26	0.08	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

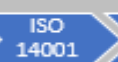
Current rating de-rating factors for other than 30°C ambient air temperature.

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
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#### OUR ACCREDITATION



## POLYCAB MV AL IEC 60502-2 12/20 KV

### Medium Voltage Aluminium Armoured Cable, 12/20 (24) KV AC

#### Single Core



#### Three Core



#### Outstanding Features

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

#### Application

POLYCAB MV 12/20 KV XLPE insulated with Aluminium conductor single & multi core cable is suitable to use for power networks, underground and in cable ducting.

#### Voltage Rating

Nominal Voltage: 12/20 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

#### Standard and References:

IEC 60228

IEC 60502-2

BS 6622

#### Test Voltage

42kV AC 50 Hz

#### Impulse Test Voltage

Peak 125kV AC

#### Compliance

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

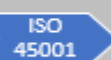
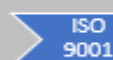


#### Bending Radius:

Fixed Installation: 12D

D is overall diameter of cable

#### OUR ACCREDITATION



## POLYCAB MV AL IEC 60502-2 12/20 KV

### Medium Voltage Aluminium Armoured Cable, 12/20 (24) 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
MVIE19AXAWY2001C050SA001P	1	50	23.8	27.0	31.0	1150
MVIE19AXAWY2001C070SA001P	1	70	25.4	29.4	33.0	1350
MVIE19AXAWY2001C095SA001P	1	95	27.2	31.2	35.0	1500
MVIE19AXAWY2001C120SA001P	1	120	28.8	32.8	37.0	1650
MVIE19AXAWY2001C150SA001P	1	150	30.5	34.5	39.0	1850
MVIE19AXAWY2001C185SA001P	1	185	32.2	36.2	41.0	2050
MVIE19AXAWY2001C240SA001P	1	240	34.6	38.6	43.0	2350
MVIE19AXAWY2001C300SA001P	1	300	37.3	42.3	47.0	2800
MVIE19AXAWY2001C400SA001P	1	400	40.5	45.5	51.0	3250
MVIE19AXAWY2001C500SA001P	1	500	44.0	49.0	54.0	3800
MVIE19AXAWY2001C630SA001P	1	630	47.4	52.4	58.0	4400
MVIE19AXAWY2001C800SA001P	1	800	51.7	56.7	63.0	5150
MVIE19AXAWY2001C01KSA001P	1	1000	56.2	61.2	67.0	6000
MVIE19AXSWY2003C050SA001P	3	50	49.6	54.6	60.0	5400
MVIE19AXSWY2003C070SA001P	3	70	53.1	58.1	64.0	6000
MVIE19AXSWY2003C095SA001P	3	95	57.1	62.1	69.0	6750
MVIE19AXSWY2003C120SA001P	3	120	60.5	66.8	73.0	8200
MVIE19AXSWY2003C150SA001P	3	150	64.4	70.7	78.0	9050
MVIE19AXSWY2003C185SA001P	3	185	68.2	74.5	82.0	10000
MVIE19AXSWY2003C240SA001P	3	240	73.8	80.1	88.0	11250
MVIE19AXSWY2003C300SA001P	3	300	79.2	85.5	93.0	12650
MVIE19AXSWY2003C400SA001P	3	400	86.5	92.8	101.0	14500

#### OUR ACCREDITATION



## POLYCAB MV AL IEC 60502-2 12/20 KV

### Medium Voltage Aluminium Armoured Cable, 12/20 (24) 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	0.641	0.822	0.17	0.44	0.14	157	152	146	142	189	184
1	70	0.443	0.568	0.19	0.42	0.13	192	186	178	176	236	230
1	95	0.320	0.410	0.21	0.40	0.13	229	221	213	210	287	280
1	120	0.253	0.325	0.23	0.38	0.12	260	252	242	240	332	324
1	150	0.206	0.264	0.25	0.37	0.12	288	281	271	267	376	368
1	185	0.164	0.211	0.27	0.36	0.11	324	317	307	303	432	424
1	240	0.125	0.161	0.30	0.34	0.11	373	367	356	351	511	502
1	300	0.100	0.129	0.33	0.34	0.11	419	414	402	397	586	577
1	400	0.0778	0.101	0.37	0.33	0.10	466	470	457	451	676	673
1	500	0.0605	0.080	0.44	0.26	0.08	525	530	510	505	760	750
1	630	0.0469	0.063	0.48	0.26	0.08	580	585	560	555	860	850
1	800	0.0367	0.051	0.53	0.25	0.08	650	655	620	615	960	950
1	1000	0.0291	0.042	0.59	0.24	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 Ducts	In air at 30°C
							Amps		
No.	mm <sup>2</sup>	Ω/km	Ω/km	μF/km	mH/km	Ω/km	Amps		
3	50	0.641	0.822	0.17	0.37	0.12	140	122	158
3	70	0.443	0.568	0.19	0.35	0.11	171	150	196
3	95	0.320	0.410	0.21	0.34	0.11	203	179	236
3	120	0.253	0.325	0.23	0.32	0.10	232	205	273
3	150	0.206	0.264	0.25	0.31	0.10	260	231	309
3	185	0.164	0.211	0.27	0.30	0.10	294	262	355
3	240	0.125	0.161	0.30	0.29	0.09	340	305	415
3	300	0.100	0.129	0.33	0.28	0.09	384	346	475
3	400	0.0778	0.101	0.37	0.27	0.09	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

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

#### OUR ACCREDITATION



# POLYCAB MV AL IEC 60502-2 18/30 KV

## Medium Voltage Aluminium Armoured Cable, 18/30 (36) KV AC

### Single Core



### Three Core



### Outstanding Features

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

### Application

POLYCAB MV 18/30 KV XLPE insulated with Aluminium conductor single & multi core cable is suitable to use for power networks, underground, in cable ducting and also suitable for direct burial.

### Voltage Rating

Nominal Voltage: 18/30 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

### Standard and References:

IEC 60228

IEC 60502-2

BS 6622

### Test Voltage

63kV AC 50 Hz

### Impulse Test Voltage

Peak 170kV AC

### Compliance

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

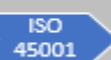


### Bending Radius:

Fixed Installation: 12D

D is overall diameter of cable

### OUR ACCREDITATION



## POLYCAB MV AL IEC 60502-2 18/30 KV

### Medium Voltage Aluminium Armoured Cable, 18/30 (36) 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
MVIE20AXAWY2001C050SA001P	1	50	28.8	32.8	37.0	1600
MVIE20AXAWY2001C070SA001P	1	70	30.4	34.4	39.0	1750
MVIE20AXAWY2001C095SA001P	1	95	32.2	36.2	41.0	1950
MVIE20AXAWY2001C120SA001P	1	120	33.8	37.8	42.0	2100
MVIE20AXAWY2001C150SA001P	1	150	35.7	40.7	46.0	2450
MVIE20AXAWY2001C185SA001P	1	185	37.4	42.4	47.0	2650
MVIE20AXAWY2001C240SA001P	1	240	39.8	44.8	50.0	3000
MVIE20AXAWY2001C300SA001P	1	300	42.5	47.5	53.0	3350
MVIE20AXAWY2001C400SA001P	1	400	45.7	50.7	56.0	3850
MVIE20AXAWY2001C500SA001P	1	500	49.2	54.2	60.0	4400
MVIE20AXAWY2001C630SA001P	1	630	52.6	57.6	63.0	5050
MVIE20AXAWY2001C800SA001P	1	800	56.9	61.9	68.0	5850
MVIE20AXAWY2001C01KSA001P	1	1000	61.4	66.4	73.0	6800
MVIE20AXSWY2003C050SA001P	3	50	60.8	67.1	74.0	8000
MVIE20AXSWY2003C070SA001P	3	70	64.3	70.6	78.0	8750
MVIE20AXSWY2003C095SA001P	3	95	68.3	74.6	82.0	9600
MVIE20AXSWY2003C120SA001P	3	120	71.9	78.2	86.0	10400
MVIE20AXSWY2003C150SA001P	3	150	75.6	81.9	90.0	11300
MVIE20AXSWY2003C185SA001P	3	185	79.4	85.7	94.0	12300
MVIE20AXSWY2003C240SA001P	3	240	85.0	91.3	100.0	13700
MVIE20AXSWY2003C300SA001P	3	300	90.6	96.9	106.0	15300
MVIE20AXSWY2003C400SA001P	3	400	97.7	104.0	113.0	17350

#### OUR ACCREDITATION



## POLYCAB MV AL IEC 60502-2 18/30 KV

### Medium Voltage Aluminium Armoured Cable, 18/30 (36) 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	0.641	0.822	0.13	0.47	0.15	157	152	146	142	189	184
1	70	0.443	0.568	0.15	0.45	0.14	192	186	178	176	236	230
1	95	0.320	0.410	0.16	0.43	0.14	229	221	213	210	287	280
1	120	0.253	0.325	0.18	0.41	0.13	260	252	242	240	332	324
1	150	0.206	0.264	0.19	0.40	0.13	288	281	271	267	376	368
1	185	0.164	0.211	0.21	0.39	0.12	324	317	307	303	432	424
1	240	0.125	0.161	0.23	0.37	0.12	373	367	356	351	511	502
1	300	0.100	0.129	0.25	0.36	0.11	419	414	402	397	586	577
1	400	0.0778	0.101	0.28	0.35	0.11	466	470	457	451	676	673
1	500	0.0605	0.080	0.32	0.28	0.09	525	530	510	505	760	750
1	630	0.0469	0.063	0.35	0.27	0.09	580	585	560	555	860	850
1	800	0.0367	0.051	0.39	0.26	0.08	650	655	620	615	960	950
1	1000	0.0291	0.042	0.42	0.25	0.08	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 Ducts	In air at 30°C
							Amps		
No.	mm <sup>2</sup>	Ω/km	Ω/km	μF/km	mH/km	Ω/km			
3	50	0.641	0.822	0.13	0.41	0.13	140	122	158
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3	150	0.206	0.264	0.19	0.35	0.11	260	231	309
3	185	0.164	0.211	0.21	0.34	0.11	294	262	355
3	240	0.125	0.161	0.23	0.32	0.10	340	305	415
3	300	0.100	0.129	0.25	0.31	0.10	384	346	475
3	400	0.0778	0.101	0.28	0.30	0.09	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

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

#### OUR ACCREDITATION

