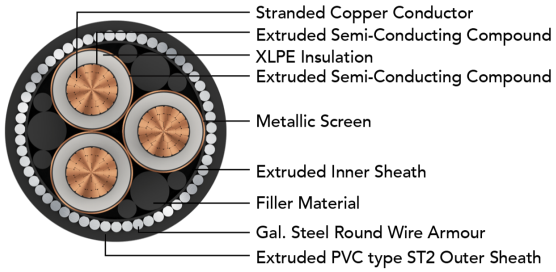
POLYCAB MV AL IEC 60502-2 8.7/15 KV
Medium Voltage Aluminium Armoured Cable, 8.7/15 (17.5) KV AC



Images not to scale. Follow table for dimensions

APPLICATION

POLYCAB MV 8.7/15 KV XLPE insulated with Aluminium 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 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
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

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POLYCAB
IDEAS. CONNECTED.

DIMENSIONS AND WEIGHTS:

Product Code	No. of Cores	Core Cross sectional Area	Nominal Diameter			Weight
			Under armour	Over armour	Overall	(Approx.)
	No.	mm^2	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

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^2	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

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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
No.	mm^2	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

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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