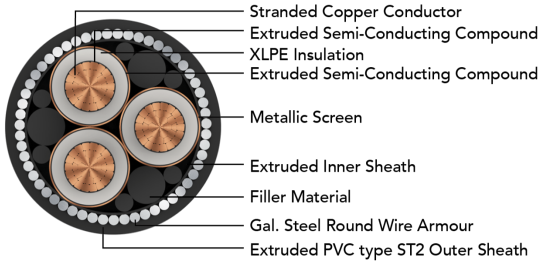
POLYCAB MV AL IEC 60502-2 18/30 KV
Medium Voltage Aluminium Armoured Cable, 18/30 (36) KV AC



Images not to scale. Follow table for dimensions

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.

CHARACTERISTICS

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

Bending Radius:
Fixed Installation: 12D
D is overall diameter of cable

Test Voltage
63kV AC 50 Hz

Impulse Test Voltage
Peak 170kV 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

NABL

APPROVAL

FQC CE

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DIMENSIONS AND WEIGHTS:

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

ELECTRICAL CHARACTERISTICS:

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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	
							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	0.13	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
No.	mm^2	Ω/km	Ω/km	µF/km	mH/km	Ω/km	Amps		
3	50	0.641	0.822	0.13	0.41	0.13	140	122	158
3	70	0.443	0.568	0.15	0.39	0.12	171	150	196
3	95	0.320	0.410	0.16	0.37	0.12	203	179	236
3	120	0.253	0.325	0.18	0.36	0.11	232	205	273
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

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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