

POLYCAB SINGLE CORE ANTI-TERMITE MV AS/NZS 1429.1 1.9/3.3 (3.6) KV



MV Cable AL Conductor, XLPE Insulation, Cu Screen and UA



Images not to scale. Follow table for dimensions

APPLICATION

POLYCAB MV 1.9/3.3 KV XLPE insulated with Aluminium conductor single core cable is suitable to use for power supply to wide networks i.e. Commercial, Industrial and Urban / Residential.

CHARACTERISTICS

Voltage Rating

Nominal Voltage: 1.9/3.3 (3.6) kV

Operation Temperature

Min. installation temperature: 0°C

Operating temperature: -25°C to +90°C

Emergency operating temperature: 105°C
(max. operation of 36hrs, at 3 periods for 12 consecutive months use)

Max. Short Circuit Temperature: 250°C

Bending Radius:

Fixed Installation: 20D

During Installation: 30D

High Voltage Test

6.5 kV AC

OUTSTANDING FEATURES

- Long life
- UV resistant
- Resistant to chemical exposure
- Resistant to weather exposure
- Resistant to water (AD7/AD8)
- Termite resistant

STANDARD FOLLOWS

AS/NZS 1429.1

AS/NZS 1125

AS/NZS 3808

COMPLIANCE

- | | |
|-------------------------|---------------|
| • Conductor resistance | AS/NZS 1125 |
| • Insulation resistance | AS/NZS 1429.1 |
| • Voltage test | AS/NZS 1429.1 |

OUR ACCREDITATIONS



APPROVAL



CONSTRUCTION

- Conductor: Stranded Compacted Circular aluminium conductor as per AS/NZS 1125
- Conductor Screen: Extruded Semi-conductive compound
- Insulation: XLPE
- Insulation Screen: Extruded Semi-conductive compound
- Longitudinal Water blocking : Water blocking tape above and below copper screen (Optional)
- Metallic Insulation Screen: Copper Wire Screen + helically applied copper tape (E/F current capacity – Based on requirement)

Composite sheath

- Inner layer : Extruded Polyvinyl Chloride, Colour: Orange
- Termite Protection: Polyamide (Nylon -12)
- Outer layer: HDPE (Black)

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DIMENSIONAL CHARACTERISTICS:

Product Code	No. of Cores	Core Cross sectional Area	Nominal Diameter		
	No.	mm ²	Under metallic screen mm	Over metallic screen mm	Overall mm
MVNZ10AXUAPH001C016SAXXXX	1	16	11.8	13.7	18.0
MVNZ10AXUAPH001C025SAXXXX	1	25	13.1	15.0	21.0
MVNZ10AXUAPH001C035SAXXXX	1	35	14.1	16.0	22.0
MVNZ10AXUAPH001C050SAXXXX	1	50	15.2	17.1	23.0
MVNZ10AXUAPH001C070SAXXXX	1	70	16.8	18.7	25.0
MVNZ10AXUAPH001C095SAXXXX	1	95	18.4	20.3	26.0
MVNZ10AXUAPH001C120SAXXXX	1	120	20	21.9	28.0
MVNZ10AXUAPH001C150SAXXXX	1	150	21.3	23.2	29.0
MVNZ10AXUAPH001C185SAXXXX	1	185	23	24.9	31.0
MVNZ10AXUAPH001C240SAXXXX	1	240	25.3	27.2	33.0
MVNZ10AXUAPH001C300SAXXXX	1	300	27.5	29.4	36.0
MVNZ10AXUAPH001C400SAXXXX	1	400	30.2	32.1	39.0
MVNZ10AXUAPH001C500SAXXXX	1	500	34	35.9	43.0
MVNZ10AXUAPH001C630SAXXXX	1	630	37.6	39.5	47.0
MVNZ10AXUAPH001C800SAXXXX	1	800	41.9	43.8	51.0
MVNZ10AXUAPH001C01KSAXXXX	1	1000	46.8	48.7	57.0

• Above mentioned parameters are based on 3kA/sec earth fault current capacity of copper screen

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	
No.	mm ²	Ω/km	Ω/km	μF/km	mH/km	Ω/km	Flat	Trefoil	Flat	Trefoil	Flat	Trefoil
1	16	1.91	2.449	0.26	0.475	0.149	88	84	81	80	99	97
1	25	1.2	1.539	0.3	0.454	0.143	112	108	103	102	130	127
1	35	0.868	1.113	0.34	0.432	0.136	134	129	123	122	157	154
1	50	0.641	0.822	0.38	0.412	0.129	157	152	146	142	189	184
1	70	0.443	0.568	0.43	0.380	0.119	192	186	178	176	236	230
1	95	0.32	0.411	0.49	0.362	0.114	229	221	213	210	287	280
1	120	0.253	0.325	0.55	0.345	0.108	260	252	242	240	332	324
1	150	0.206	0.265	0.59	0.335	0.105	288	281	271	267	376	368
1	185	0.164	0.211	0.65	0.323	0.102	324	317	307	303	432	424
1	240	0.125	0.161	0.73	0.311	0.098	373	367	356	351	511	502

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							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	300	0.1	0.130	0.81	0.299	0.094	419	414	402	397	586	577
1	400	0.0778	0.102	0.9	0.291	0.091	466	470	457	451	676	673
1	500	0.0605	0.080	0.93	0.284	0.089	525	530	510	505	760	750
1	630	0.0469	0.064	0.95	0.278	0.087	580	585	560	555	860	850
1	800	0.0367	0.052	0.99	0.273	0.086	650	655	620	615	960	950
1	1000	0.0291	0.043	1.04	0.268	0.084	715	705	670	665	1060	1050

*: Current Ratings are based on IEC 60502-2 & IEC 60287, Max. Conductor Temperature at 90°C, Ambient temperature at 30°C in Air / at 20°C in Ground, Thermal resistivity of Soil 1.5 k.m/W & for earthenware ducts 1.2k.m/W and Depth of Laying 0.8m.

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

20	25	35	40	45	50	55	60
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.

10	15	25	30	35	40	45	50
1.07	1.04	0.96	0.93	0.89	0.85	0.80	0.76