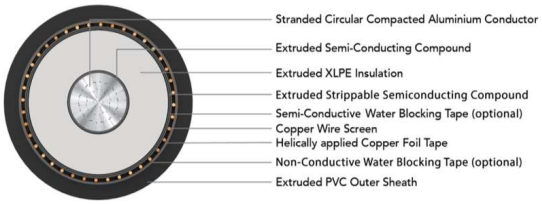
POLYCAB SINGLE CORE MV AS/NZS 1429.1 3.8/6.6 (7.2) KV.

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



Images not to scale. Follow table for dimensions

APPLICATION

POLYCAB MV 3.8/6.6 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: 3.8/6.6 (7.2) 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: 12D (PVC) / 15D (HDPE)
During Installation: 18D (PVC) / 25D (HDPE)
D is overall diameter of cable

CONSTRUCTION

- Conductor: Stranded Compacted Circular aluminium conductor as per AS/NZS 1125
- Conductor Screen: Extruded Semi-conductive compound
- Insulation: XLPE
- Insulation Screen: Extruded strippable 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)
- Metallic Sheath: Lead Alloy (optional)
- Outer Sheath: Extruded Polyvinyl Chloride, Colour: Black

OUTSTANDING FEATURES

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

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

NABL

APPROVAL

FQC CE CPRI APPROVED

NOTES

Alternative Sheath: PVC+HDPE Composite Sheath or LSZH Outer sheath and parameters will change accordingly

High Voltage Test (kV AC)	Partial discharge test (kV AC)		Impulse test Voltage (kV peak)
	200% to rated voltage	150% to rated voltage	
12.5	7.6	5.7	60

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DIMENSIONSAL CHARACTERISTICS:

Product Code	No. of Cores	Core Cross sectional Area	Nominal Diameter		
			Under metallic screen	Over metallic screen	Overall
	No.	mm^2	mm	mm	mm
MVNZ15AXUAPH001C016SAXXXX	1	16	12.8	14.7	19.0
MVNZ15AXUAPH001C025SAXXXX	1	25	14.1	16.0	20.0
MVNZ15AXUAPH001C035SAXXXX	1	35	15.1	17.0	21.0
MVNZ15AXUAPH001C050SAXXXX	1	50	16.2	18.1	22.0
MVNZ15AXUAPH001C070SAXXXX	1	70	17.8	19.7	24.0
MVNZ15AXUAPH001C095SAXXXX	1	95	19.4	21.3	25.0
MVNZ15AXUAPH001C120SAXXXX	1	120	21	22.9	27.0
MVNZ15AXUAPH001C150SAXXXX	1	150	22.3	24.2	28.0
MVNZ15AXUAPH001C185SAXXXX	1	185	24	25.9	30.0
MVNZ15AXUAPH001C240SAXXXX	1	240	26.5	28.4	33.0
MVNZ15AXUAPH001C300SAXXXX	1	300	29.1	31.0	35.0
MVNZ15AXUAPH001C400SAXXXX	1	400	32.2	34.1	39.0
MVNZ15AXUAPH001C500SAXXXX	1	500	36	37.9	43.0
MVNZ15AXUAPH001C630SAXXXX	1	630	39.2	41.1	46.0
MVNZ15AXUAPH001C800SAXXXX	1	800	43.1	45.0	50.0
MVNZ15AXUAPH001C01KSAXXXX	1	1000	47.6	49.5	55.0

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	
							Flat	Trefoil	Flat	Trefoil	Flat	Trefoil
No.	mm^2	Ω/km	Ω/km	µF/km	mH/km	Ω/km	Amps					
1	16	1.91	2.449	0.22	0.478	0.150	88	84	81	80	99	97
1	25	1.2	1.539	0.25	0.442	0.139	112	108	103	102	130	127
1	35	0.868	1.113	0.28	0.421	0.132	134	129	123	122	157	154
1	50	0.641	0.822	0.31	0.401	0.126	157	152	146	142	189	184
1	70	0.443	0.568	0.36	0.370	0.116	192	186	178	176	236	230
1	95	0.32	0.411	0.4	0.353	0.111	229	221	213	210	287	280
1	120	0.253	0.325	0.45	0.336	0.106	260	252	242	240	332	324
1	150	0.206	0.265	0.49	0.326	0.103	288	281	271	267	376	368
1	185	0.164	0.211	0.53	0.317	0.100	324	317	307	303	432	424
1	240	0.125	0.161	0.58	0.306	0.096	373	367	356	351	511	502

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							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	0.6	0.298	0.094	419	414	402	397	586	577
1	400	0.0778	0.102	0.62	0.291	0.091	466	470	457	451	676	673
1	500	0.0605	0.080	0.66	0.284	0.089	525	530	510	505	760	750
1	630	0.0469	0.064	0.73	0.277	0.087	580	585	560	555	860	850
1	800	0.0367	0.052	0.82	0.269	0.085	650	655	620	615	960	950
1	1000	0.0291	0.043	0.91	0.262	0.082	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