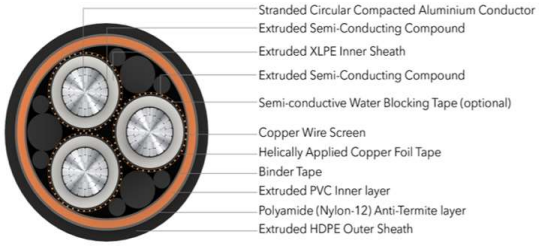
POLYCAB 3 CORE ANTI-TERMITE MV AS/NZS 1429.1 3.8/6.6 (7.2) KV

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 Three 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: 20D
During Installation: 30D
D is diameter over nylon

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
- binder tape / sheath over assembled cores

Composite sheath

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

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

NOTES

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
MVNZ15AXUAPH003C016SAXXXX	3	16	12.8	14.3	35.0
MVNZ15AXUAPH003C025SAXXXX	3	25	14.1	15.6	38.0
MVNZ15AXUAPH003C035SAXXXX	3	35	15.1	16.6	40.0
MVNZ15AXUAPH003C050SAXXXX	3	50	16.2	17.7	43.0
MVNZ15AXUAPH003C070SAXXXX	3	70	17.8	19.3	47.0
MVNZ15AXUAPH003C095SAXXXX	3	95	19.4	20.9	50.0
MVNZ15AXUAPH003C120SAXXXX	3	120	21	22.5	54.0
MVNZ15AXUAPH003C150SAXXXX	3	150	22.3	23.8	57.0
MVNZ15AXUAPH003C185SAXXXX	3	185	24	25.5	61.0
MVNZ15AXUAPH003C240SAXXXX	3	240	26.5	28.0	67.0
MVNZ15AXUAPH003C300SAXXXX	3	300	29.1	30.6	72.0
MVNZ15AXUAPH003C400SAXXXX	3	400	32.2	33.7	80.0
MVNZ15AXUAPH003C500SAXXXX	3	500	36	37.5	89.0

• 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		
							Buried direct in ground	In a buried duct	In Air
No.	mm^2	Ω/km	Ω/km	µF/km	mH/km	Ω/km	Amps		
3	16	1.91	2.449	0.22	0.618	0.194	78	67	84
3	25	1.2	1.539	0.25	0.586	0.184	100	87	110
3	35	0.868	1.113	0.28	0.565	0.177	119	103	132
3	50	0.641	0.822	0.31	0.548	0.172	140	122	158
3	70	0.443	0.568	0.36	0.518	0.163	171	150	196

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							Buried direct in ground	In a buried duct	In Air
No.	mm^2	Ω/km	Ω/km	µF/km	mH/km	Ω/km	Amps		
3	95	0.32	0.411	0.4	0.503	0.158	203	179	236
3	120	0.253	0.325	0.45	0.487	0.153	232	205	273
3	150	0.206	0.265	0.49	0.479	0.150	260	231	309
3	185	0.164	0.211	0.53	0.470	0.148	294	262	355
3	240	0.125	0.161	0.58	0.459	0.144	340	305	415
3	300	0.1	0.129	0.6	0.452	0.142	384	346	475
3	400	0.0778	0.101	0.62	0.447	0.140	438	398	552
3	500	0.0605	0.079	0.66	0.439	0.138	505	460	646

Current ratings are in accordance with IEC 60502-2*: 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

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No. of Cores	Core Cross sectional Area	Max. pulling tension on conductor	Charging Current per phase	Zero sequence impedance	Electric Stress at Conductor Screen	Short circuit rating of Phase conductor
No.	mm^2	kN	Amps/Km	Ohms/Km	kV/mm	kA, 1 sec
3	16	0.8	0.26	3.61	2.1	1.4
3	25	1.25	0.3	2.70	2.0	2.3
3	35	1.75	0.33	2.27	2.0	3.1
3	50	2.5	0.37	1.98	1.9	4.5
3	70	3.5	0.43	1.73	1.9	6.2
3	95	4.75	0.48	1.57	1.8	8.5
3	120	6	0.54	1.48	1.8	10.7
3	150	7.5	0.58	1.42	1.8	13.4
3	185	9.25	0.63	1.37	1.7	16.5
3	240	12	0.69	1.32	1.7	21.4
3	300	15	0.72	1.29	1.5	26.8
3	400	20	0.74	1.26	1.4	35.5
3	500	25	0.79	1.24	1.3	44.7