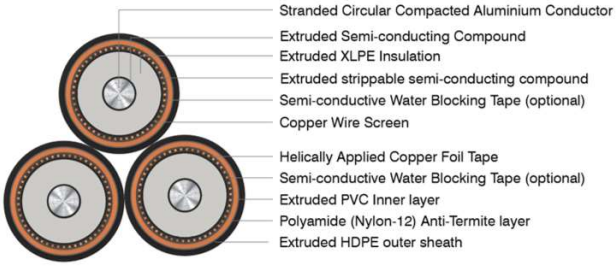
POLYCAB TRIPLEX ANTI-TERMITE MV AS/NZS 1429.1 3.8/6.6 (7.2) KV

MV Cable AL Conductor, XLPE Insulation, Cu Screen - Triplex



Images not to scale. Follow table for dimensions

APPLICATION

POLYCAB MV 3.8/6.6 KV XLPE insulated with Aluminium conductor Triplex 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 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)

Composite sheath

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

Three Single Core Cables twisted and assembled to form triplex formation

OUTSTANDING FEATURES

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

STANDARD FOLLOWS

AS/NZS 1429.1
AS/NZS 1125
AS/NZS 3008

COMPLIANCE

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

OUR ACCREDITATIONS

NABL

APPROVAL

FQC CE

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 Single Cores	Core Cross sectional Area	Nominal Diameter		
			Over Screen	Each Phase	Overall
	No.	mm^2	mm	mm	mm
MVNZ15AXUAPH001T016SAXXXX	3	16	14.7	21.0	45.0
MVNZ15AXUAPH001T025SAXXXX	3	25	16.0	22.0	47.0
MVNZ15AXUAPH001T035SAXXXX	3	35	17.0	23.0	49.0
MVNZ15AXUAPH001T050SAXXXX	3	50	18.1	24.0	52.0
MVNZ15AXUAPH001T070SAXXXX	3	70	19.7	26.0	55.0
MVNZ15AXUAPH001T095SAXXXX	3	95	21.3	27.0	59.0
MVNZ15AXUAPH001T120SAXXXX	3	120	22.9	29.0	62.0
MVNZ15AXUAPH001T150SAXXXX	3	150	24.2	30.0	65.0
MVNZ15AXUAPH001T185SAXXXX	3	185	25.9	32.0	69.0
MVNZ15AXUAPH001T240SAXXXX	3	240	28.4	35.0	74.0
MVNZ15AXUAPH001T300SAXXXX	3	300	31.0	37.0	80.0
MVNZ15AXUAPH001T400SAXXXX	3	400	34.1	40.0	86.0
MVNZ15AXUAPH001T500SAXXXX	3	500	37.9	44.0	95.0

• 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 @ ambient 45°C		
							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 x 1	16	1.91	2.45	0.22	0.500	0.157	78	67	84
3 x 1	25	1.2	1.54	0.25	0.463	0.145	100	87	110
3 x 1	35	0.868	1.11	0.28	0.441	0.138	119	103	132
3 x 1	50	0.641	0.82	0.31	0.421	0.132	140	122	158
3 x 1	70	0.443	0.57	0.36	0.388	0.122	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 x 1	95	0.32	0.41	0.4	0.370	0.116	203	179	236
3 x 1	120	0.253	0.32	0.45	0.352	0.111	232	205	273
3 x 1	150	0.206	0.26	0.49	0.342	0.107	260	231	309
3 x 1	185	0.164	0.21	0.53	0.330	0.104	294	262	355
3 x 1	240	0.125	0.16	0.58	0.318	0.100	340	305	415
3 x 1	300	0.1	0.13	0.6	0.308	0.097	384	346	475
3 x 1	400	0.0778	0.10	0.62	0.300	0.094	438	398	552
3 x 1	500	0.0605	0.08	0.66	0.290	0.091	505	460	646

*: 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 x 1	16	0.8	0.26	3.61	2.1	1.5
3 x 1	25	1.25	0.3	2.70	2.0	2.4
3 x 1	35	1.75	0.33	2.27	2.0	3.3
3 x 1	50	2.5	0.37	1.98	1.9	4.7
3 x 1	70	3.5	0.43	1.73	1.9	6.6
3 x 1	95	4.75	0.48	1.57	1.8	9.0
3 x 1	120	6	0.54	1.48	1.8	11.3
3 x 1	150	7.5	0.58	1.42	1.8	14.2
3 x 1	185	9.25	0.63	1.37	1.7	17.4
3 x 1	240	12	0.69	1.32	1.7	22.6
3 x 1	300	15	0.72	1.29	1.5	28.3
3 x 1	400	20	0.74	1.26	1.4	37.6
3 x 1	500	25	0.79	1.24	1.3	47.2