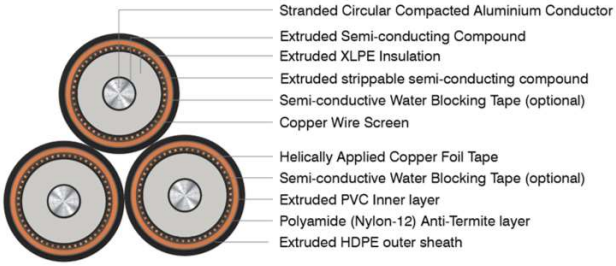
POLYCAB TRIPLEX ANTI-TERMITE MV AS/NZS 1429.1 19/33 (36) KV

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



Images not to scale. Follow table for dimensions

APPLICATION

POLYCAB MV 19/33 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: 19/33 (36) 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	
63	38	29	200

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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
MVNZ13AXUAPH001T050SAXXXX	3	50	29.1	35.0	76.0
MVNZ13AXUAPH001T070SAXXXX	3	70	30.7	37.0	79.0
MVNZ13AXUAPH001T095SAXXXX	3	95	32.3	38.0	83.0
MVNZ13AXUAPH001T120SAXXXX	3	120	33.9	40.0	86.0
MVNZ13AXUAPH001T150SAXXXX	3	150	35.2	41.0	89.0
MVNZ13AXUAPH001T185SAXXXX	3	185	36.9	43.0	92.0
MVNZ13AXUAPH001T240SAXXXX	3	240	39.2	45.0	97.0
MVNZ13AXUAPH001T300SAXXXX	3	300	41.4	48.0	102.0
MVNZ13AXUAPH001T400SAXXXX	3	400	44.1	50.0	108.0
MVNZ13AXUAPH001T500SAXXXX	3	500	47.5	54.0	115.0

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	50	0.641	0.82	0.14	0.497	0.156	140	122	158
3 x 1	70	0.443	0.57	0.15	0.460	0.145	171	150	196
3 x 1	95	0.32	0.41	0.17	0.438	0.138	203	179	236
3 x 1	120	0.253	0.32	0.18	0.417	0.131	232	205	273
3 x 1	150	0.206	0.26	0.19	0.404	0.127	260	231	309
3 x 1	185	0.164	0.21	0.21	0.390	0.122	294	262	355
3 x 1	240	0.125	0.16	0.23	0.373	0.117	340	305	415

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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	300	0.1	0.13	0.25	0.358	0.113	384	346	475
3 x 1	400	0.0778	0.10	0.27	0.344	0.108	438	398	552
3 x 1	500	0.0605	0.08	0.3	0.330	0.104	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	50	2.5	0.84	1.98	4.1	4.7
3 x 1	70	3.5	0.9	1.73	3.9	6.6
3 x 1	95	4.75	1.01	1.57	3.7	9.0
3 x 1	120	6	1.07	1.49	3.6	11.3
3 x 1	150	7.5	1.13	1.43	3.5	14.2
3 x 1	185	9.25	1.25	1.37	3.4	17.4
3 x 1	240	12	1.37	1.32	3.3	22.6
3 x 1	300	15	1.49	1.29	3.2	28.3
3 x 1	400	20	1.61	1.26	3.1	37.6
3 x 1	500	25	1.79	1.24	3.0	47.2