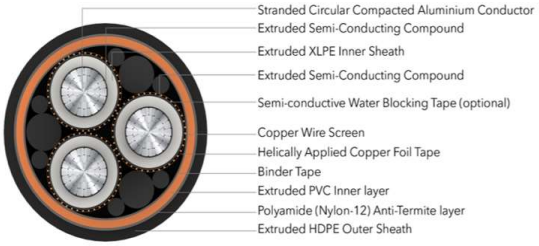
POLYCAB 3 CORE ANTI-TERMITE MV AS/NZS 1429.1 19/33 (36) KV

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



Images not to scale. Follow table for dimensions

APPLICATION

POLYCAB MV 19/33 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: 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 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	
63	38	29	200

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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
MVNZ13AXUAPH003C050SAXXXX	3	50	27.2	28.7	68.0
MVNZ13AXUAPH003C070SAXXXX	3	70	28.8	30.3	72.0
MVNZ13AXUAPH003C095SAXXXX	3	95	30.4	31.9	76.0
MVNZ13AXUAPH003C120SAXXXX	3	120	32	33.5	80.0
MVNZ13AXUAPH003C150SAXXXX	3	150	33.3	34.8	82.0
MVNZ13AXUAPH003C185SAXXXX	3	185	35	36.5	86.0
MVNZ13AXUAPH003C240SAXXXX	3	240	37.3	38.8	92.0
MVNZ13AXUAPH003C300SAXXXX	3	300	39.5	41.0	96.0
MVNZ13AXUAPH003C400SAXXXX	3	400	42.2	43.7	103.0
MVNZ13AXUAPH003C500SAXXXX	3	500	45.6	47.1	110.0

• 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	50	0.641	0.822	0.14	0.643	0.202	140	122	158
3	70	0.443	0.568	0.15	0.608	0.191	171	150	196
3	95	0.32	0.410	0.17	0.586	0.184	203	179	236
3	120	0.253	0.325	0.18	0.567	0.178	232	205	273
3	150	0.206	0.264	0.19	0.554	0.174	260	231	309
3	185	0.164	0.211	0.21	0.541	0.170	294	262	355
3	240	0.125	0.161	0.23	0.525	0.165	340	305	415
3	300	0.1	0.129	0.25	0.511	0.160	384	346	475
3	400	0.0778	0.101	0.27	0.498	0.156	438	398	552
3	500	0.0605	0.079	0.3	0.485	0.152	505	460	646

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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

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	50	2.5	0.84	1.98	4.1	4.5
3	70	3.5	0.9	1.73	3.9	6.2
3	95	4.75	1.01	1.57	3.7	8.5
3	120	6	1.07	1.49	3.6	10.7
3	150	7.5	1.13	1.43	3.5	13.4
3	185	9.25	1.25	1.37	3.4	16.5
3	240	12	1.37	1.32	3.3	21.4
3	300	15	1.49	1.29	3.2	26.8
3	400	20	1.61	1.26	3.1	35.5
3	500	25	1.79	1.24	3.0	44.7