



Images not to scale. Follow table for dimensions

APPLICATION

POLY CAB MV 19/33 KV XLPE insulated with Copper 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: 12D (PVC) / 15D (HDPE)/20D (Nylon)

During Installation: 18D (PVC) / 25D (HDPE)/30D (Nylon)

D is overall diameter of each cable

CONSTRUCTION

- Conductor: Stranded Compacted Circular Copper 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)
- Outer Sheath: Extruded Polyvinyl Chloride, Colour: Black
- Termite Protection: Polyamide (Nylon -12) (optional)
- (Alternative Sheath: PVC+HDPE Composite Sheath or PVC + Nylon + HDPE (composite sheath with anti-termite properties) or LSZH Outer sheath, and parameters will change accordingly)
- 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 (Optional)

STANDARD FOLLOWS

AS/NZS 1429.1

AS/NZS 1125

AS/NZS 3008

COMPLIANCE

- | | |
|-------------------------|---------------|
| • Conductor resistance | AS/NZS 1125 |
| • Insulation resistance | AS/NZS 1429.1 |
| • Short Circuit Temp. | IEC 60986 |

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

POLYCAT TRIPLEX MV AS/NZS 1429.1 19/33 (36) KV
MV Cable AL Conductor, XLPE Insulation, Cu Screen - Triplex

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DIMENSIONAL CHARACTERISTICS :

Product Code	No. of Single Cores	Core Cross sectional Area	Nominal Diameter		
			Over Screen	Each Phase	Overall
	No.	mm ²	mm	mm	mm
MVNZ13CXUAPH001T050SAXXXX	3	50	29.1	33.0	72.0
MVNZ13CXUAPH001T070SAXXXX	3	70	30.8	35.0	75.0
MVNZ13CXUAPH001T095SAXXXX	3	95	32.3	37.0	79.0
MVNZ13CXUAPH001T120SAXXXX	3	120	33.9	38.0	82.0
MVNZ13CXUAPH001T150SAXXXX	3	150	35.3	40.0	86.0
MVNZ13CXUAPH001T185SAXXXX	3	185	37.0	42.0	90.0
MVNZ13CXUAPH001T240SAXXXX	3	240	39.3	44.0	95.0
MVNZ13CXUAPH001T300SAXXXX	3	300	41.3	46.0	100.0
MVNZ13CXUAPH001T400SAXXXX	3	400	44.1	49.0	106.0
MVNZ13CXUAPH001T500SAXXXX	3	500	47.5	53.0	114.0

• 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 x 1	50	0.387	0.494	0.14	0.486	0.153	181	158	204
3 x 1	70	0.268	0.342	0.15	0.449	0.141	221	193	253
3 x 1	95	0.193	0.247	0.17	0.429	0.135	262	231	304
3 x 1	120	0.153	0.196	0.18	0.409	0.128	298	264	351
3 x 1	150	0.124	0.159	0.19	0.396	0.124	334	297	398
3 x 1	185	0.0991	0.127	0.21	0.382	0.120	377	336	455
3 x 1	240	0.0754	0.098	0.23	0.367	0.115	434	390	531
3 x 1	300	0.0601	0.079	0.25	0.354	0.111	489	441	606
3 x 1	400	0.047	0.063	0.27	0.341	0.107	553	501	696
3 x 1	500	0.0366	0.050	0.3	0.327	0.103	632	574	800

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*: 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 Phase conductor
No.	mm ²	kN	Amps/Km	Ohms/Km	kV/mm	kA, 1 sec
3 x 1	50	3.5	0.84	1.7	4.1	7.2
3 x 1	70	4.9	0.9	1.5	3.9	10.0
3 x 1	95	6.7	1.01	1.4	3.7	13.6
3 x 1	120	8.4	1.07	1.4	3.6	17.1
3 x 1	150	10.5	1.13	1.3	3.5	21.4
3 x 1	185	13.0	1.25	1.3	3.4	26.4
3 x 1	240	16.8	1.37	1.3	3.3	34.3
3 x 1	300	21.0	1.49	1.2	3.2	42.8
3 x 1	400	28.0	1.61	1.2	3.1	56.9
3 x 1	500	35.0	1.79	1.2	3.0	71.5