



Images not to scale. Follow table for dimensions

#### APPLICATION

POLY CAB MV 1.9/3.3 KV XLPE insulated with Copper conductor single core cable is suitable to use for power supply to wide networks i.e. Commercial, Industrial and Urban / Residential.

#### CHARACTERISTICS

##### Voltage Rating

Nominal Voltage: 1.9/3.3 (3.6) 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 cable

##### High Voltage Test

6.5 kV AC

#### CONSTRUCTION

- Conductor: Stranded Compacted Circular Copper 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 (E/F current capacity – Based on requirement)
- Metallic Sheath: Lead Alloy (optional)
- Outer Sheath: Extruded Polyvinyl Chloride, Colour: Black
- Termite Protection: Polyamide (Nylon -12) (optional)

#### 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 3808

#### COMPLIANCE

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

#### OUR ACCREDITATIONS



#### APPROVAL



#### NOTES

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

**DIMENSIONAL CHARACTERISTICS :**

Product Code	No. of Cores	Core Cross sectional Area	Nominal Diameter			
			No.	mm <sup>2</sup>	Under metallic screen mm	Over metallic screen mm
MVNZ10CXUAPH001C016SAXXXX	1	16		11.9	13.8	18.0
MVNZ10CXUAPH001C025SAXXXX	1	25		13.1	15.0	19.0
MVNZ10CXUAPH001C035SAXXXX	1	35		14.1	16.0	20.0
MVNZ10CXUAPH001C050SAXXXX	1	50		15.2	17.1	21.0
MVNZ10CXUAPH001C070SAXXXX	1	70		16.9	18.8	23.0
MVNZ10CXUAPH001C095SAXXXX	1	95		18.4	20.3	24.0
MVNZ10CXUAPH001C120SAXXXX	1	120		20.0	21.9	26.0
MVNZ10CXUAPH001C150SAXXXX	1	150		21.4	23.3	27.0
MVNZ10CXUAPH001C185SAXXXX	1	185		23.1	25.0	29.0
MVNZ10CXUAPH001C240SAXXXX	1	240		25.4	27.3	31.0
MVNZ10CXUAPH001C300SAXXXX	1	300		27.4	29.3	34.0
MVNZ10CXUAPH001C400SAXXXX	1	400		30.2	32.1	37.0
MVNZ10CXUAPH001C500SAXXXX	1	500		34.0	35.9	41.0
MVNZ10CXUAPH001C630SAXXXX	1	630		38.0	39.9	45.0
MVNZ10CXUAPH001C800SAXXXX	1	800		42.1	44.0	49.0
MVNZ10CXUAPH001C01KSAXXXX	1	1000		46.8	48.7	54.0

• 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					
							In ground at 20°C	In Duct at 20°C	In air at 30°C	Flat	Trefoil	Flat
No.	mm <sup>2</sup>	Ω/km	Ω/km	μF/km	mH/km	Ω/km	Amps					
1	16	1.15	1.466	0.26	0.463	0.146	113	109	104	103	128	125
1	25	0.727	0.927	0.3	0.431	0.135	144	140	133	132	167	163
1	35	0.524	0.668	0.34	0.411	0.129	172	166	159	157	203	198
1	50	0.387	0.494	0.38	0.392	0.123	203	196	188	186	243	238
1	70	0.268	0.342	0.44	0.360	0.113	246	239	229	227	303	296
1	95	0.193	0.247	0.49	0.345	0.108	293	285	274	271	369	361
1	120	0.153	0.196	0.55	0.328	0.103	332	323	311	308	426	417
1	150	0.124	0.159	0.59	0.318	0.100	366	361	347	343	481	473
1	185	0.0991	0.128	0.65	0.308	0.097	410	406	391	387	550	543
1	240	0.0754	0.098	0.73	0.298	0.094	470	469	453	447	647	641
1	300	0.0601	0.079	0.8	0.289	0.091	524	526	510	504	739	735
1	400	0.047	0.064	0.9	0.280	0.088	572	590	571	564	837	845
1	500	0.0366	0.051	0.93	0.274	0.086	660	655	640	635	970	960
1	630	0.0283	0.042	0.96	0.268	0.084	735	730	715	710	1110	1100
1	800	0.0221	0.035	0.99	0.263	0.083	770	820	800	790	1260	1250
1	1000	0.0176	0.031	1.04	0.259	0.081	825	885	865	855	1420	1410

\*: 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