



Images not to scale. Follow table for dimensions

APPLICATION

POLY CAB MV 6.35/11 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: 6.35/11 (12) 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	
21	13	17	95

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
MVNZ17CXUAPH001T016SAXXXX	3	16	16.6	21.0	44.0
MVNZ17CXUAPH001T025SAXXXX	3	25	17.8	22.0	46.0
MVNZ17CXUAPH001T035SAXXXX	3	35	18.8	23.0	49.0
MVNZ17CXUAPH001T050SAXXXX	3	50	19.9	24.0	51.0
MVNZ17CXUAPH001T070SAXXXX	3	70	21.5	25.0	54.0
MVNZ17CXUAPH001T095SAXXXX	3	95	23.1	27.0	58.0
MVNZ17CXUAPH001T120SAXXXX	3	120	24.7	29.0	61.0
MVNZ17CXUAPH001T150SAXXXX	3	150	26.0	30.0	65.0
MVNZ17CXUAPH001T185SAXXXX	3	185	27.7	32.0	68.0
MVNZ17CXUAPH001T240SAXXXX	3	240	30.0	34.0	74.0
MVNZ17CXUAPH001T300SAXXXX	3	300	32.2	37.0	79.0
MVNZ17CXUAPH001T400SAXXXX	3	400	34.9	40.0	85.0
MVNZ17CXUAPH001T500SAXXXX	3	500	38.3	43.0	93.0

• 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	16	1.15	1.466	0.18	0.493	0.155	101	87	109
3 x 1	25	0.727	0.927	0.2	0.460	0.144	129	112	142
3 x 1	35	0.524	0.668	0.22	0.437	0.137	153	133	170
3 x 1	50	0.387	0.494	0.25	0.417	0.131	181	158	204
3 x 1	70	0.268	0.342	0.28	0.385	0.121	221	193	253
3 x 1	95	0.193	0.247	0.31	0.367	0.115	262	231	304

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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	120	0.153	0.196	0.35	0.349	0.110	298	264	351
3 x 1	150	0.124	0.159	0.37	0.340	0.107	334	297	398
3 x 1	185	0.0991	0.128	0.41	0.329	0.103	377	336	455
3 x 1	240	0.0754	0.098	0.46	0.317	0.099	434	390	531
3 x 1	300	0.0601	0.079	0.5	0.306	0.096	489	441	606
3 x 1	400	0.047	0.063	0.56	0.296	0.093	553	501	696
3 x 1	500	0.0366	0.051	0.63	0.286	0.090	632	574	800

*: 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	16	1.1	0.36	2.6	2.8	2.3
3 x 1	25	1.3	0.4	2.7	2.7	3.6
3 x 1	35	1.8	0.44	2.3	2.6	5.0
3 x 1	50	2.5	0.5	2.0	2.5	7.2
3 x 1	70	3.5	0.56	1.7	2.4	10.0
3 x 1	95	4.8	0.62	1.6	2.3	13.6
3 x 1	120	6.0	0.7	1.5	2.3	17.1
3 x 1	150	7.5	0.74	1.4	2.3	21.4
3 x 1	185	9.3	0.82	1.4	2.2	26.4
3 x 1	240	12.0	0.92	1.3	2.2	34.3
3 x 1	300	15.0	1	1.3	2.2	42.8
3 x 1	400	20.0	1.12	1.3	2.1	56.9
3 x 1	500	25.0	1.26	1.2	2.1	71.5