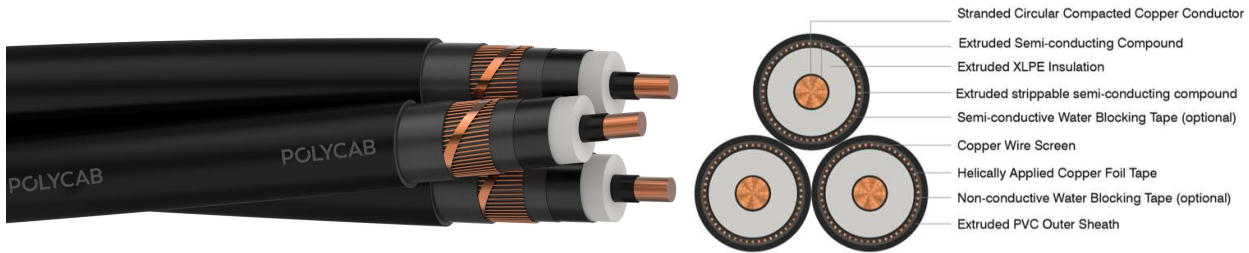


# POLYCAB TRIPLEX MV AS/NZS 1429.1 3.8/6.6 (7.2) KV

## MV Cable with Cu Conductor, XLPE Insulation, Cu Screen - Triplex

**POLYCAB**  
IDEAS. CONNECTED.



Images not to scale. Follow table for dimensions

### APPLICATION

POLYCAB MV 3.8/6.6 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: 3.8/6.6 (7.2) 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)

### 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

Three Single Core Cables twisted and assembled to form triplex formation

High Voltage Test (kV AC)	Partial discharge test (kV AC)		Impulse test Voltage (kV peak)
	200% to rated voltage	150% to rated voltage	
12.5	7.6	5.7	60

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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 <sup>2</sup>	mm	mm	mm
MVNZ15CXUAPH001T016SAXXXX	3	16	14.8	19.0	40.0
MVNZ15CXUAPH001T025SAXXXX	3	25	16.0	20.0	43.0
MVNZ15CXUAPH001T035SAXXXX	3	35	17.0	21.0	45.0
MVNZ15CXUAPH001T050SAXXXX	3	50	18.1	22.0	47.0
MVNZ15CXUAPH001T070SAXXXX	3	70	19.8	24.0	51.0
MVNZ15CXUAPH001T095SAXXXX	3	95	21.3	25.0	54.0
MVNZ15CXUAPH001T120SAXXXX	3	120	22.9	27.0	58.0
MVNZ15CXUAPH001T150SAXXXX	3	150	24.3	28.0	61.0
MVNZ15CXUAPH001T185SAXXXX	3	185	26.0	30.0	65.0
MVNZ15CXUAPH001T240SAXXXX	3	240	28.5	33.0	70.0
MVNZ15CXUAPH001T300SAXXXX	3	300	30.9	35.0	76.0
MVNZ15CXUAPH001T400SAXXXX	3	400	34.1	39.0	83.0
MVNZ15CXUAPH001T500SAXXXX	3	500	37.9	43.0	92.0

• 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 <sup>2</sup>	Ω/km	Ω/km	μF/km	mH/km	Ω/km	Amps		
3 x 1	16	1.15	1.466	0.22	0.475	0.149	101	87	109
3 x 1	25	0.727	0.927	0.25	0.442	0.139	129	112	142
3 x 1	35	0.524	0.668	0.28	0.421	0.132	153	133	170
3 x 1	50	0.387	0.494	0.31	0.401	0.126	181	158	204
3 x 1	70	0.268	0.342	0.36	0.369	0.116	221	193	253
3 x 1	95	0.193	0.247	0.4	0.353	0.111	262	231	304

Document No.: 00413.Rev No.: 00 Date: 05-01-2024 / We reserve the rights to make technical changes.

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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 <sup>2</sup>	Ω/km	Ω/km	μF/km	mH/km	Ω/km	Amps		
3 x 1	120	0.153	0.196	0.45	0.336	0.106	298	264	351
3 x 1	150	0.124	0.159	0.49	0.326	0.102	334	297	398
3 x 1	185	0.0991	0.128	0.54	0.316	0.099	377	336	455
3 x 1	240	0.0754	0.098	0.58	0.305	0.096	434	390	531
3 x 1	300	0.0601	0.079	0.59	0.299	0.094	489	441	606
3 x 1	400	0.047	0.063	0.62	0.291	0.091	553	501	696
3 x 1	500	0.0366	0.051	0.66	0.284	0.089	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

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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 Phase conductor
No.	mm <sup>2</sup>	kN	Amps/Km	Ohms/Km	kV/mm	kA, 1 sec
3 x 1	16	1.1	0.26	2.6	2.1	2.3
3 x 1	25	1.8	0.3	2.1	2.0	3.6
3 x 1	35	2.5	0.33	1.8	2.0	5.0
3 x 1	50	3.5	0.37	1.7	1.9	7.2
3 x 1	70	4.9	0.43	1.5	1.9	10.0
3 x 1	95	6.7	0.48	1.4	1.8	13.6
3 x 1	120	8.4	0.54	1.4	1.8	17.1
3 x 1	150	10.5	0.58	1.3	1.8	21.4
3 x 1	185	13.0	0.64	1.3	1.7	26.4
3 x 1	240	16.8	0.69	1.3	1.7	34.3
3 x 1	300	21.0	0.7	1.2	1.5	42.8
3 x 1	400	28.0	0.74	1.2	1.4	56.9
3 x 1	500	35.0	0.79	1.2	1.3	71.5