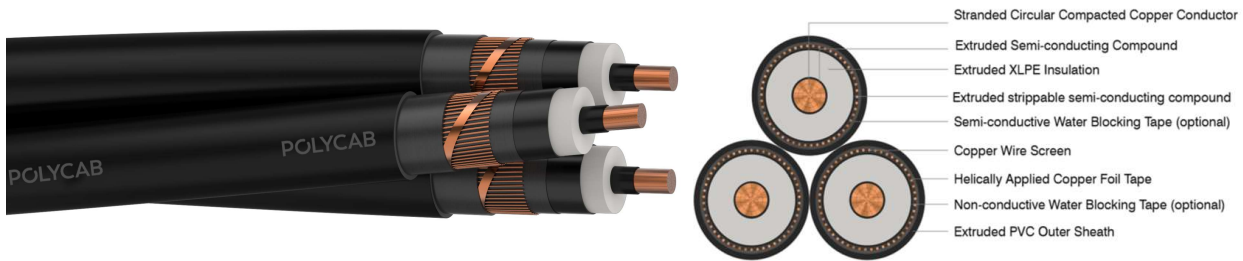


# POLYCAB TRIPLEX MV AS/NZS 1429.1 6.35/11 (12) KV POLYCAB

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

IDEAS. CONNECTED.



Images not to scale. Follow table for dimensions

### APPLICATION

POLYCAB 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

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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
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 <sup>2</sup>	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 <sup>2</sup>	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

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**MV Cable Cu Conductor, XLPE Insulation, Cu Screen - Triplex** IDEAS. CONNECTED.

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	0.36	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