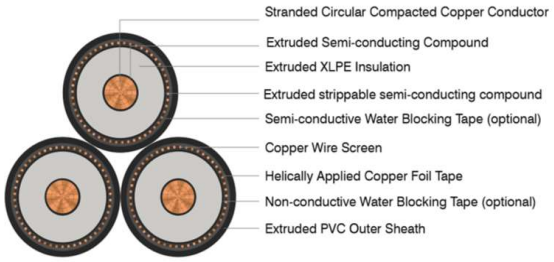
POLYCAB TRIPLEX MV AS/NZS 1429.1 12.7/22 (24) KV
MV Cable Cu Conductor, XLPE Insulation, Cu Screen - Triplex



Images not to scale. Follow table for dimensions

APPLICATION

POLYCAB MV 12.7/22 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: 12.7/22 (24) 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

NABL

APPROVAL

FQC CE

NOTES

High Voltage Test (kV AC)	Partial discharge test (kV AC)		Impulse test Voltage (kV peak)
	200% to rated voltage	150% to rated voltage	
42	25	19	150

POLYCAB TRIPLEX MV AS/NZS 1429.1 12.7/22 (24) KV
MV Cable Cu Conductor, XLPE Insulation, Cu Screen - Triplex

POLYCAB
IDEAS. CONNECTED.

DIMENSIONSAL CHARACTERISTICS :

Product Code	No. of Single Cores	Core Cross sectional Area	Nominal Diameter		
			Over Screen	Each Phase	Overall
	No.	mm^2	mm	mm	mm
MVNZ12CXUAPH001T035SAXXXX	3	35	23.0	27.0	58.0
MVNZ12CXUAPH001T050SAXXXX	3	50	24.1	28.0	60.0
MVNZ12CXUAPH001T070SAXXXX	3	70	25.8	30.0	64.0
MVNZ12CXUAPH001T095SAXXXX	3	95	27.3	31.0	67.0
MVNZ12CXUAPH001T120SAXXXX	3	120	28.9	33.0	71.0
MVNZ12CXUAPH001T150SAXXXX	3	150	30.3	35.0	74.0
MVNZ12CXUAPH001T185SAXXXX	3	185	32.0	37.0	78.0
MVNZ12CXUAPH001T240SAXXXX	3	240	34.3	39.0	83.0
MVNZ12CXUAPH001T300SAXXXX	3	300	36.3	41.0	88.0
MVNZ12CXUAPH001T400SAXXXX	3	400	39.1	44.0	94.0
MVNZ12CXUAPH001T500SAXXXX	3	500	42.5	48.0	102.0

• 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	35	0.524	0.668	0.16	0.472	0.148	153	133	170
3 x 1	50	0.387	0.494	0.17	0.450	0.142	181	158	204
3 x 1	70	0.268	0.342	0.2	0.416	0.131	221	193	253
3 x 1	95	0.193	0.247	0.22	0.397	0.125	262	231	304
3 x 1	120	0.153	0.196	0.24	0.379	0.119	298	264	351
3 x 1	150	0.124	0.159	0.26	0.367	0.115	334	297	398
3 x 1	185	0.0991	0.128	0.28	0.355	0.112	377	336	455
3 x 1	240	0.0754	0.098	0.31	0.340	0.107	434	390	531
3 x 1	300	0.0601	0.079	0.33	0.329	0.103	489	441	606
3 x 1	400	0.047	0.063	0.37	0.318	0.100	553	501	696

POLYCAB TRIPLEX MV AS/NZS 1429.1 12.7/22 (24) KV
MV Cable Cu Conductor, XLPE Insulation, Cu Screen - Triplex

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	500	0.0366	0.051	0.41	0.306	0.096	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	35	2.5	0.64	1.8	3.7	5.0
3 x 1	50	3.5	0.68	1.7	3.5	7.2
3 x 1	70	4.9	0.8	1.5	3.4	10.0
3 x 1	95	6.7	0.88	1.4	3.2	13.6
3 x 1	120	8.4	0.96	1.4	3.1	17.1
3 x 1	150	10.5	1.04	1.3	3.1	21.4
3 x 1	185	13.0	1.12	1.3	3.0	26.4
3 x 1	240	16.8	1.24	1.3	2.9	34.3
3 x 1	300	21.0	1.32	1.2	2.9	42.8
3 x 1	400	28.0	1.48	1.2	2.8	56.9
3 x 1	500	35.0	1.64	1.2	2.7	71.5