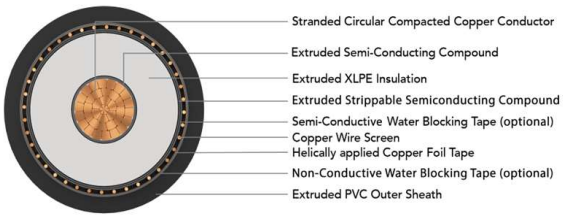
POLYCAB SC MV AS/NZS 1429.1 12.7/22 (24) KV
MV Cable Cu Conductor, XLPE Insulation, Cu Screen and UA



Images not to scale. Follow table for dimensions

APPLICATION

POLYCAB MV 12.7/22 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: 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 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)
- Metallic Sheath: Lead Alloy (optional)
- 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 3808

COMPLIANCE

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

OUR ACCREDITATIONS

NABL

APPROVAL

FQC CE CPRI APPROVED

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

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POLYCAB
IDEAS. CONNECTED.

DIMENSIONSAL CHARACTERISTICS :

Product Code	No. of Cores	Core Cross sectional Area	Nominal Diameter		
			Under metallic screen	Over metallic screen	Overall
	No.	mm^2	mm	mm	mm
MVNZ54CXUAPH001C035SAXXXX	1	35	21.1	23.0	27.0
MVNZ54CXUAPH001C050SAXXXX	1	50	22.2	24.1	28.0
MVNZ54CXUAPH001C070SAXXXX	1	70	23.9	25.8	30.0
MVNZ54CXUAPH001C095SAXXXX	1	95	25.4	27.3	31.0
MVNZ54CXUAPH001C120SAXXXX	1	120	27	28.9	33.0
MVNZ54CXUAPH001C150SAXXXX	1	150	28.4	30.3	35.0
MVNZ54CXUAPH001C185SAXXXX	1	185	30.1	32.0	37.0
MVNZ54CXUAPH001C240SAXXXX	1	240	32.4	34.3	39.0
MVNZ54CXUAPH001C300SAXXXX	1	300	34.4	36.3	41.0
MVNZ54CXUAPH001C400SAXXXX	1	400	37.2	39.1	44.0
MVNZ54CXUAPH001C500SAXXXX	1	500	40.6	42.5	48.0
MVNZ54CXUAPH001C630SAXXXX	1	630	44.2	46.1	51.0
MVNZ54CXUAPH001C800SAXXXX	1	800	47.9	49.8	55.0
MVNZ54CXUAPH001C01KSAXXXX	1	1000	52.2	54.1	60.0

• 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	Trefoil	Flat	Trefoil
No.	mm^2	Ω/km	Ω/km	µF/km	mH/km	Ω/km	Amps					
1	35	0.524	0.668	0.16	0.472	0.148	172	166	159	157	203	198
1	50	0.387	0.494	0.17	0.450	0.142	203	196	188	186	243	238
1	70	0.268	0.342	0.2	0.416	0.131	246	239	229	227	303	296
1	95	0.193	0.247	0.22	0.397	0.125	293	285	274	271	369	361
1	120	0.153	0.196	0.24	0.379	0.119	332	323	311	308	426	417
1	150	0.124	0.159	0.26	0.367	0.115	366	361	347	343	481	473

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							In ground at 20°C		In Duct at 20°C		In air at 30°C	
							Flat	Trefoil	Flat	Trefoil	Flat	Trefoil
No.	mm^2	Ω/km	Ω/km	µF/km	mH/km	Ω/km	Amps					
1	185	0.0991	0.128	0.28	0.355	0.112	410	406	391	387	550	543
1	240	0.0754	0.098	0.31	0.340	0.107	470	469	453	447	647	641
1	300	0.0601	0.079	0.33	0.329	0.103	524	526	510	504	739	735
1	400	0.047	0.063	0.37	0.318	0.100	572	590	571	564	837	845
1	500	0.0366	0.051	0.41	0.306	0.096	660	655	640	635	970	960
1	630	0.0283	0.041	0.46	0.296	0.093	735	730	715	710	1110	1100
1	800	0.0221	0.034	0.5	0.287	0.090	770	820	800	790	1260	1250
1	1000	0.0176	0.030	0.56	0.279	0.088	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