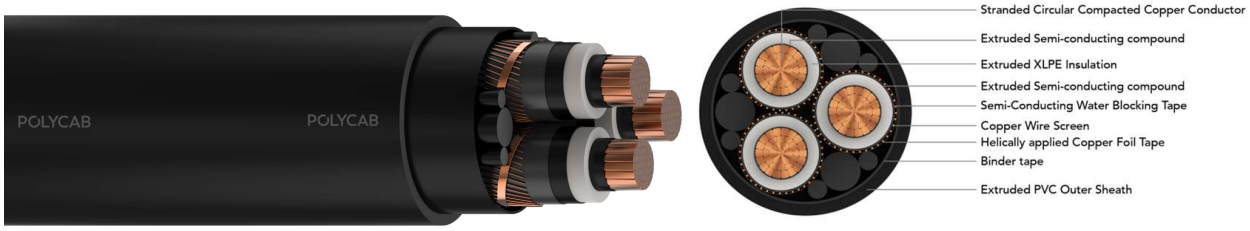
POLYCAB 3 CORE MV AS/NZS 1429.1 1.9/3.3 (3.6) KV
MV Cable Cu Conductor, XLPE Insulation, Cu Screen and UA



Images not to scale. Follow table for dimensions

APPLICATION

POLYCAB MV 1.9/3.3 KV XLPE insulated with Copper conductor Three core cable is suitable to use for power supply to wide networks i.e. Commercial, Industrial and Urban / Residential.

CHARACTERISTICS

Voltage Rating
Nominal Voltage: 1.9/3.3 (3.6) 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
High Voltage Test
6.5 kV AC

CONSTRUCTION

- Conductor: Stranded Compacted Circular Copper conductor as per AS/NZS 1125
- Conductor Screen: Extruded Semi-conductive compound
- Insulation: XLPE
- Insulation Screen: Extruded Semi-conductive compound
- Longitudinal Water blocking : Water blocking tape below copper screen (Optional)
- Metallic Insulation Screen: Copper Wire Screen + helically applied copper tape (E/F current capacity – Based on requirement)
- binder tape / sheath over assembled cores
- Metallic Sheath: Lead Alloy (optional)
- Outer Sheath: Extruded Polyvinyl Chloride, Colour: Black
- Insect attack Protection: Polyamide Nylon (optional)

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

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.

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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
MVNZ10CXUAPH003C016SAXXXX	3	16	11.9	13.4	33.0
MVNZ10CXUAPH003C025SAXXXX	3	25	13.1	14.6	35.0
MVNZ10CXUAPH003C035SAXXXX	3	35	14.1	15.6	38.0
MVNZ10CXUAPH003C050SAXXXX	3	50	15.2	16.7	40.0
MVNZ10CXUAPH003C070SAXXXX	3	70	16.9	18.4	44.0
MVNZ10CXUAPH003C095SAXXXX	3	95	18.4	19.9	48.0
MVNZ10CXUAPH003C120SAXXXX	3	120	20	21.5	51.0
MVNZ10CXUAPH003C150SAXXXX	3	150	21.4	22.9	55.0
MVNZ10CXUAPH003C185SAXXXX	3	185	23.1	24.6	58.0
MVNZ10CXUAPH003C240SAXXXX	3	240	25.4	26.9	64.0
MVNZ10CXUAPH003C300SAXXXX	3	300	27.4	28.9	68.0
MVNZ10CXUAPH003C400SAXXXX	3	400	30.2	31.7	75.0
MVNZ10CXUAPH003C500SAXXXX	3	500	34	35.5	83.0

• 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	16	1.15	1.466	0.26	0.600	0.189	101	87	109
3	25	0.727	0.927	0.3	0.569	0.179	129	112	142
3	35	0.524	0.668	0.34	0.551	0.173	153	133	170
3	50	0.387	0.494	0.38	0.534	0.168	181	158	204
3	70	0.268	0.342	0.44	0.505	0.159	221	193	253

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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	95	0.193	0.247	0.49	0.492	0.154	262	231	304
3	120	0.153	0.196	0.55	0.477	0.150	298	264	351
3	150	0.124	0.159	0.59	0.468	0.147	334	297	398
3	185	0.0991	0.127	0.65	0.459	0.144	377	336	455
3	240	0.0754	0.097	0.73	0.450	0.141	434	390	531
3	300	0.0601	0.078	0.8	0.441	0.139	489	441	606
3	400	0.047	0.062	0.9	0.433	0.136	553	501	696
3	500	0.0366	0.049	0.93	0.427	0.134	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 of Phase conductor
No.	mm^2	kN	Amps/Km	Ohms/Km	kV/mm	kA, 1 sec
3	16	1.12	0.16	2.63	1.3	2.3
3	25	1.75	0.18	2.09	1.2	3.6
3	35	2.45	0.2	1.83	1.2	5.0
3	50	3.5	0.23	1.65	1.1	7.2
3	70	4.9	0.26	1.50	1.1	10.0
3	95	6.65	0.29	1.41	1.1	13.6
3	120	8.4	0.33	1.36	1.1	17.1
3	150	10.5	0.35	1.32	1.1	21.4
3	185	12.95	0.39	1.29	1.1	26.4
3	240	16.8	0.44	1.26	1.0	34.3
3	300	21	0.48	1.24	1.0	42.8
3	400	28	0.54	1.22	1.0	56.9
3	500	35	0.56	1.21	0.9	71.5