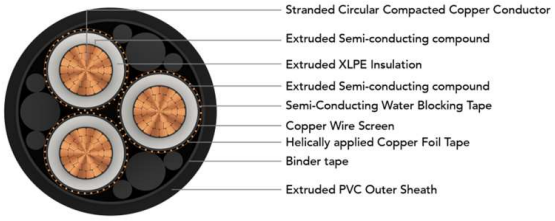
POLYCAB 3 CORE MV AS/NZS 1429.1 1.9/3.3 (3.6) KV
MV Cable Cu Conductor, XLPE Insulation, Cu Screen and UA



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.

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

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

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

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	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

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

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