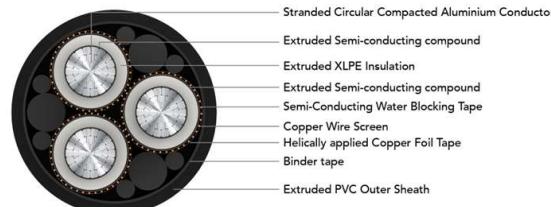


POLY CAB THREE CORE MV AS/NZS 1429.1 1.9/3.3

(3.6) KV

MV Cable AL Conductor, XLPE Insulation, Cu Screen and UA

POLY CAB
IDEAS. CONNECTED.



Images not to scale. Follow table for dimensions

APPLICATION

POLY CAB MV 1.9/3.3 KV XLPE insulated with Aluminium 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)

During Installation: 18D (PVC) / 25D (HDPE)

D is overall diameter of cable

High Voltage Test

6.5 kV AC

CONSTRUCTION

- Conductor: Stranded Compacted Circular aluminium 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 above and below copper screen (Optional)
- Metallic Insulation Screen: Copper Wire Screen + helically applied copper tape
- 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

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



APPROVAL



NOTES

Alternative Sheath: PVC + HDPE Outer Sheath or LSZH
Outer sheath and parameters will change accordingly

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DIMENSIONAL CHARACTERISTICS:

Product Code	No. of Cores	Core Cross sectional Area	Nominal Diameter				
			No.	mm ²	Under metallic screen	Over metallic screen	Overall
					mm	mm	mm
MVNZ10AXUAPH003C016SAXXXX	3	16		11.8	13.3	33.0	
MVNZ10AXUAPH003C025SAXXXX	3	25		13.1	14.6	35.0	
MVNZ10AXUAPH003C035SAXXXX	3	35		14.1	15.6	38.0	
MVNZ10AXUAPH003C050SAXXXX	3	50		15.2	16.7	40.0	
MVNZ10AXUAPH003C070SAXXXX	3	70		16.8	18.3	44.0	
MVNZ10AXUAPH003C095SAXXXX	3	95		18.4	19.9	48.0	
MVNZ10AXUAPH003C120SAXXXX	3	120		20	21.5	51.0	
MVNZ10AXUAPH003C150SAXXXX	3	150		21.3	22.8	54.0	
MVNZ10AXUAPH003C185SAXXXX	3	185		23	24.5	58.0	
MVNZ10AXUAPH003C240SAXXXX	3	240		25.3	26.8	64.0	
MVNZ10AXUAPH003C300SAXXXX	3	300		27.5	29.0	69.0	
MVNZ10AXUAPH003C400SAXXXX	3	400		30.2	31.7	75.0	
MVNZ10AXUAPH003C500SAXXXX	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	1.91	2.449	0.26	0.603	0.189	78	67	84
3	25	1.2	1.539	0.3	0.569	0.179	100	87	110
3	35	0.868	1.113	0.34	0.551	0.173	119	103	132
3	50	0.641	0.822	0.38	0.534	0.168	140	122	158
3	70	0.443	0.568	0.43	0.506	0.159	171	150	196

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(3.6) KV

MV Cable AL Conductor, XLPE Insulation, Cu Screen and UA

POLY CAB
IDEAS. CONNECTED.

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	0.32	0.411	0.49	0.492	0.154	203	179	236
3	120	0.253	0.325	0.55	0.477	0.150	232	205	273
3	150	0.206	0.265	0.59	0.469	0.147	260	231	309
3	185	0.164	0.211	0.65	0.460	0.144	294	262	355
3	240	0.125	0.161	0.73	0.450	0.141	340	305	415
3	300	0.1	0.129	0.81	0.441	0.138	384	346	475
3	400	0.0778	0.101	0.9	0.433	0.136	438	398	552
3	500	0.0605	0.079	0.93	0.427	0.134	505	460	646

Current ratings are in accordance with IEC 60502-2*: 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

(3.6) KV

MV Cable AL 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	0.8	0.16	3.61	1.3	1.4
3	25	1.25	0.18	2.70	1.2	2.3
3	35	1.75	0.2	2.27	1.2	3.1
3	50	2.5	0.23	1.98	1.1	4.5
3	70	3.5	0.26	1.73	1.1	6.2
3	95	4.75	0.29	1.57	1.1	8.5
3	120	6	0.33	1.48	1.1	10.7
3	150	7.5	0.35	1.42	1.1	13.4
3	185	9.25	0.39	1.37	1.1	16.5
3	240	12	0.44	1.32	1.0	21.4
3	300	15	0.48	1.29	1.0	26.8
3	400	20	0.54	1.26	1.0	35.5
3	500	25	0.56	1.24	0.9	44.7