POLYCAB MEDIUM VOLTAGE HIGH TENSION CABLE CONFORMING TO AS/NZS 1429.1

MANUFACTURING VIDEO

Polycab Medium Voltage High Tension cables of voltage grade ranging from 1.9/3.3 kV to 19/33 kV are suitable to use use for power supply to wide networks i.e. Commercial, Industrial and Urban / Residential. These cables are available with XLPE/EPR insulation having temperature rating of 90°C and 105°C respectively.

These cables are halogen free flame retardant in characteristic and provide continuous load and Extra- protection from short circuit and Fire.

Conductor: High conductivity annealed plain stranded compacted aluminium / copper conductor produced in-house from state-of-the art machine.

Conductor Screen: an extruded layer of cross-linkable semi conducting compound to eliminate sharp points on conductor surface and also nullifies chance of electric discharge at interface between conductor / insulation

Insulation: In-house developed high insulation resistance Cross-linked Polyethylene / Ethylene Propylene Rubber thermoset insulation compound.

Non-metallic Insulation Screen: an extruded layer of cross-linkable semi conducting compound, applied in triple extrusion with conductor screen and insulation extrusion, to eliminate micro voids and curing resulting longer life of cables

Metallic Screen: Copper wire screen and optional helically applied copper tape screen to carry fault current

Laying Up: in case of 3 core Cable, insulated cores laid up together with in-house developed fillers to maintain circularity of cable and optional ground wire for earthing purpose

Inner Sheath: in case of 3 core cable, In-house developed thermoplastic compound applied over laid up core assembly

Optional Metallic Sheath: Lead Alloy

Optional Insect Attack Protective Layer: Polyaminde Nylon

Outer Sheath: In-house developed thermoplastic compound having low emission of smoke and corrosive gases when exposed to fire.

The construction is based on the application and requirement of the user against AS/NZS 1429.1.

POLYCAB SINGLE CORE MV AS/NZS 1429.1 1.9/3.3 (3.6) KV (Copper)

POLYCAB SINGLE CORE MV AS/NZS 1429.1 1.9/3.3 (3.6) KV (Aluminium)

POLYCAB SINGLE CORE ANTI-TERMITE MV AS/NZS 1429.1 1.9/3.3 (3.6) KV (Aluminium)

POLYCAB SINGLE CORE MV AS/NZS 1429.1 3.8/6.6 (7.2) KV (Copper)

POLYCAB SINGLE CORE MV AS/NZS 1429.1 3.8/6.6 (7.2) KV (Aluminium)

POLYCAB SINGLE CORE ANTI-TERMITE MV AS/NZS 1429.1 3.8/6.6 (7.2) KV (Aluminium)

POLYCAB SINGLE CORE MV AS/NZS 1429.1 6.35/11 (12) KV (Copper)

POLYCAB SINGLE CORE MV AS/NZS 1429.1 6.35/11 (12) KV (Aluminium)

POLYCAB SINGLE CORE ANTI-TERMITE MV AS/NZS 1429.1 6.35/11 (12) KV (Aluminium)

POLYCAB SINGLE CORE MV AS/NZS 1429.1 12.7/22 (24) KV (Copper)

POLYCAB SINGLE CORE MV AS/NZS 1429.1 12.7/22 (24) KV (Aluminium)

POLYCAB SINGLE CORE ANTI-TERMITE MV AS/NZS 1429.1 12.7/22 (24) KV (Aluminium)

POLYCAB SINGLE CORE MV AS/NZS 1429.1 19/33 (36) KV (Copper)

POLYCAB SINGLE CORE MV AS/NZS 1429.1 19/33 (36) KV (Aluminium)

POLYCAB SINGLE CORE ANTI-TERMITE MV AS/NZS 1429.1 19/33 (36) KV (Aluminium)

POLYCAB THREE CORE MV AS/NZS 1429.1 1.9/3.3 (3.6) KV (Copper)

POLYCAB THREE CORE MV AS/NZS 1429.1 1.9/3.3 (3.6) KV (Aluminium)

POLYCAB THREE CORE ANTI-TERMITE MV AS/NZS 1429.1 1.9/3.3 (3.6) KV (Aluminium)

POLYCAB THREE CORE MV AS/NZS 1429.1 3.8/6.6 (7.2) KV (Copper)

POLYCAB THREE CORE MV AS/NZS 1429.1 3.8/6.6 (7.2) KV (Aluminium)

POLYCAB THREE CORE ANTI-TERMITE MV AS/NZS 1429.1 3.8/6.6 (7.2) KV (Aluminium)

POLYCAB THREE CORE MV AS/NZS 1429.1 6.35/11 (12) KV (Copper)

POLYCAB THREE CORE MV AS/NZS 1429.1 6.35/11 (12) KV (Aluminium)

POLYCAB THREE CORE ANTI-TERMITE MV AS/NZS 1429.1 6.35/11 (12) KV (Aluminium)

POLYCAB THREE CORE MV AS/NZS 1429.1 12.7/22 (24) KV (Copper)

POLYCAB THREE CORE MV AS/NZS 1429.1 12.7/22 (24) KV (Aluminium)

POLYCAB THREE CORE ANTI-TERMITE MV AS/NZS 1429.1 12.7/22 (24) KV (Aluminium)

POLYCAB THREE CORE MV AS/NZS 1429.1 19/33 (36) KV (Copper)

POLYCAB THREE CORE MV AS/NZS 1429.1 19/33 (36) KV (Aluminium)

POLYCAB THREE CORE ANTI-TERMITE MV AS/NZS 1429.1 19/33 (36) KV (Aluminium)

POLYCAB TRIPLEX MV AS/NZS 1429.1 3.8/6.6 (7.2) KV (Copper)

POLYCAB TRIPLEX MV AS/NZS 1429.1 3.8/6.6 (7.2) KV (Aluminium)

POLYCAB TRIPLEX ANTI-TERMITE MV AS/NZS 1429.1 3.8/6.6 (7.2) KV

POLYCAB TRIPLEX MV AS/NZS 1429.1 6.35/11 (12) KV (Copper)

POLYCAB TRIPLEX MV AS/NZS 1429.1 6.35/11 (12) KV (Aluminium)

POLYCAB TRIPLEX ANTI-TERMITE MV AS/NZS 1429.1 6.35/11 (12) KV

POLYCAB TRIPLEX MV AS/NZS 1429.1 12.7/22 (24) KV (Copper)

POLYCAB TRIPLEX MV AS/NZS 1429.1 12.7/22 (24) KV (Aluminium)

POLYCAB TRIPLEX ANTI-TERMITE MV AS/NZS 1429.1 12.7/22 (24) KV

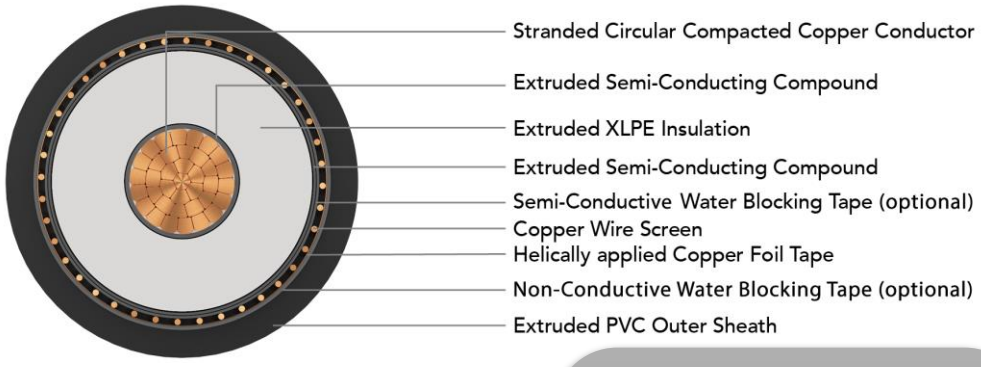
POLYCAB TRIPLEX MV AS/NZS 1429.1 19/33 (36) KV (Copper)

POLYCAB TRIPLEX MV AS/NZS 1429.1 19/33 (36) KV (Aluminium)

POLYCAB TRIPLEX ANTI-TERMITE MV AS/NZS 1429.1 19/33 (36) KV

POLYCAB SINGLE CORE MV AS/NZS 1429.1 1.9/3.3 (3.6) KV

MV Cable with Copper Conductor, XLPE Insulation, Copper Screen and Unarmoured



Salient Features

- Long life
- UV resistant
- Resistant to chemical exposure
- Resistant to water (AD7/AD8 with HDPE)
- Resistant to weather exposure
- Termite resistant (Optional)

Application

POLYCAB MV 1.9/3.3 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.

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

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 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)
- 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)

Bending Radius:

Fixed Installation: 12D (PVC) / 15D (HDPE)/20D (Nylon)
During Installation: 18D (PVC) / 25D (HDPE)/30D (Nylon)

D is overall diameter of cable

Standard and References:

AS/NZS 1429.1
AS/NZS 1125
AS/NZS 3808

High Voltage Test

6.5 kV AC

Compliance

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

POLYCAB SINGLE CORE MV AS/NZS 1429.1 1.9/3.3 (3.6) KV

MV Cable with Copper Conductor, XLPE Insulation, Copper Screen and Unarmoured

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
MVNZ10CXUAPH001C016SAXXXX	1	16	11.9	13.8	18.0
MVNZ10CXUAPH001C025SAXXXX	1	25	13.1	15.0	19.0
MVNZ10CXUAPH001C035SAXXXX	1	35	14.1	16.0	20.0
MVNZ10CXUAPH001C050SAXXXX	1	50	15.2	17.1	21.0
MVNZ10CXUAPH001C070SAXXXX	1	70	16.9	18.8	23.0
MVNZ10CXUAPH001C095SAXXXX	1	95	18.4	20.3	24.0
MVNZ10CXUAPH001C120SAXXXX	1	120	20.0	21.9	26.0
MVNZ10CXUAPH001C150SAXXXX	1	150	21.4	23.3	27.0
MVNZ10CXUAPH001C185SAXXXX	1	185	23.1	25.0	29.0
MVNZ10CXUAPH001C240SAXXXX	1	240	25.4	27.3	31.0
MVNZ10CXUAPH001C300SAXXXX	1	300	27.4	29.3	34.0
MVNZ10CXUAPH001C400SAXXXX	1	400	30.2	32.1	37.0
MVNZ10CXUAPH001C500SAXXXX	1	500	34.0	35.9	41.0
MVNZ10CXUAPH001C630SAXXXX	1	630	38.0	39.9	45.0
MVNZ10CXUAPH001C800SAXXXX	1	800	42.1	44.0	49.0
MVNZ10CXUAPH001C01KSAXXXX	1	1000	46.8	48.7	54.0

- Above mentioned parameters are based on 3kA/sec earth fault current capacity of copper screen

POLYCAB SINGLE CORE MV AS/NZS 1429.1 1.9/3.3 (3.6) KV

MV Cable with Copper Conductor, XLPE Insulation, Copper Screen and Unarmoured

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	16	1.15	1.466	0.26	0.463	0.146	113	109	104	103	128	125
1	25	0.727	0.927	0.3	0.431	0.135	144	140	133	132	167	163
1	35	0.524	0.668	0.34	0.411	0.129	172	166	159	157	203	198
1	50	0.387	0.494	0.38	0.392	0.123	203	196	188	186	243	238
1	70	0.268	0.342	0.44	0.360	0.113	246	239	229	227	303	296
1	95	0.193	0.247	0.49	0.345	0.108	293	285	274	271	369	361
1	120	0.153	0.196	0.55	0.328	0.103	332	323	311	308	426	417
1	150	0.124	0.159	0.59	0.318	0.100	366	361	347	343	481	473
1	185	0.0991	0.128	0.65	0.308	0.097	410	406	391	387	550	543
1	240	0.0754	0.098	0.73	0.298	0.094	470	469	453	447	647	641
1	300	0.0601	0.079	0.8	0.289	0.091	524	526	510	504	739	735
1	400	0.047	0.064	0.9	0.280	0.088	572	590	571	564	837	845
1	500	0.0366	0.051	0.93	0.274	0.086	660	655	640	635	970	960
1	630	0.0283	0.042	0.96	0.268	0.084	735	730	715	710	1110	1100
1	800	0.0221	0.035	0.99	0.263	0.083	770	820	800	790	1260	1250
1	1000	0.0176	0.031	1.04	0.259	0.081	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

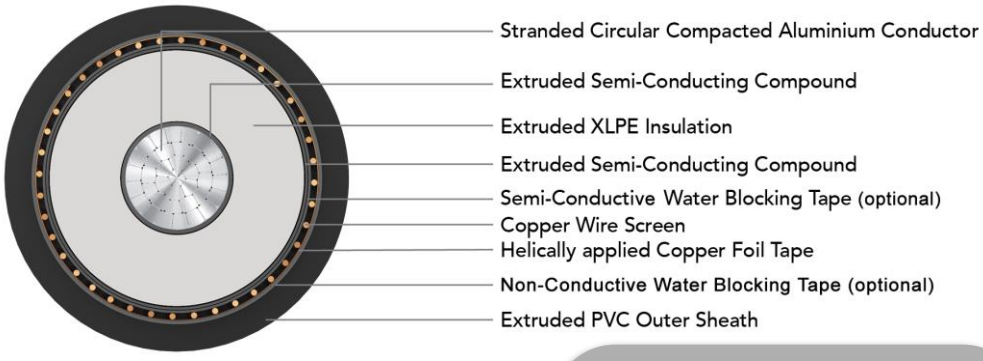
POLYCAB SINGLE CORE MV AS/NZS 1429.1 1.9/3.3 (3.6) KV

MV Cable with Copper Conductor, XLPE Insulation, Copper Screen and Unarmoured

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
1	16	1.1	0.16	2.63	1.3	2.3
1	25	1.75	0.18	2.09	1.2	3.6
1	35	2.45	0.2	1.83	1.2	5.0
1	50	3.5	0.23	1.65	1.1	7.2
1	70	4.9	0.26	1.50	1.1	10.0
1	95	6.65	0.29	1.41	1.1	13.6
1	120	8.4	0.33	1.36	1.1	17.1
1	150	10.5	0.35	1.32	1.1	21.4
1	185	12.95	0.39	1.29	1.1	26.4
1	240	16.8	0.44	1.26	1.0	34.3
1	300	21	0.48	1.24	1.0	42.8
1	400	28	0.54	1.22	1.0	56.9
1	500	35	0.56	1.21	0.9	71.5
1	630	44.1	0.57	1.20	0.9	90.2
1	800	56	0.59	1.19	0.8	114
1	1000	70	0.62	1.19	0.7	143

POLYCAB SINGLE CORE MV AS/NZS 1429.1 1.9/3.3 (3.6) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen and Unarmoured



Salient Features

- Long life
- UV resistant
- Resistant to chemical exposure
- Resistant to water (AD7/AD8 with HDPE)
- Resistant to weather exposure

Application

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

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

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 (E/F current capacity – Based on requirement)
- Metallic Sheath: Lead Alloy (optional)
- Outer Sheath: Extruded Polyvinyl Chloride, Colour: Black

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

Bending Radius:

Fixed Installation: 12D (PVC) / 15D (HDPE)
During Installation: 18D (PVC) / 25D (HDPE)

D is overall diameter of cable

Standard and References:

AS/NZS 1429.1
AS/NZS 1125
AS/NZS 3808

High Voltage Test

6.5 kV AC

Compliance

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

POLYCAB SINGLE CORE MV AS/NZS 1429.1 1.9/3.3 (3.6) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen and Unarmoured

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
MVNZ10AXUAPH001C016SAXXXX	1	16	11.8	13.7	18.0
MVNZ10AXUAPH001C025SAXXXX	1	25	13.1	15.0	19.0
MVNZ10AXUAPH001C035SAXXXX	1	35	14.1	16.0	20.0
MVNZ10AXUAPH001C050SAXXXX	1	50	15.2	17.1	21.0
MVNZ10AXUAPH001C070SAXXXX	1	70	16.8	18.7	23.0
MVNZ10AXUAPH001C095SAXXXX	1	95	18.4	20.3	24.0
MVNZ10AXUAPH001C120SAXXXX	1	120	20	21.9	26.0
MVNZ10AXUAPH001C150SAXXXX	1	150	21.3	23.2	27.0
MVNZ10AXUAPH001C185SAXXXX	1	185	23	24.9	29.0
MVNZ10AXUAPH001C240SAXXXX	1	240	25.3	27.2	31.0
MVNZ10AXUAPH001C300SAXXXX	1	300	27.5	29.4	34.0
MVNZ10AXUAPH001C400SAXXXX	1	400	30.2	32.1	37.0
MVNZ10AXUAPH001C500SAXXXX	1	500	34	35.9	41.0
MVNZ10AXUAPH001C630SAXXXX	1	630	37.6	39.5	44.0
MVNZ10AXUAPH001C800SAXXXX	1	800	41.9	43.8	49.0
MVNZ10AXUAPH001C01KSAXXXX	1	1000	46.8	48.7	54.0

- Above mentioned parameters are based on 3kA/sec earth fault current capacity of copper screen

POLYCAB SINGLE CORE MV AS/NZS 1429.1 1.9/3.3 (3.6) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen and Unarmoured

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 Ducts		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	16	1.91	2.449	0.26	0.467	0.147	88	84	81	80	99	97
1	25	1.2	1.539	0.3	0.431	0.135	112	108	103	102	130	127
1	35	0.868	1.113	0.34	0.411	0.129	134	129	123	122	157	154
1	50	0.641	0.822	0.38	0.392	0.123	157	152	146	142	189	184
1	70	0.443	0.568	0.43	0.362	0.114	192	186	178	176	236	230
1	95	0.32	0.411	0.49	0.345	0.108	229	221	213	210	287	280
1	120	0.253	0.325	0.55	0.328	0.103	260	252	242	240	332	324
1	150	0.206	0.265	0.59	0.319	0.100	288	281	271	267	376	368
1	185	0.164	0.211	0.65	0.309	0.097	324	317	307	303	432	424
1	240	0.125	0.162	0.73	0.298	0.094	373	367	356	351	511	502
1	300	0.1	0.130	0.81	0.289	0.091	419	414	402	397	586	577
1	400	0.0778	0.102	0.9	0.280	0.088	466	470	457	451	676	673
1	500	0.0605	0.081	0.93	0.274	0.086	525	530	510	505	760	750
1	630	0.0469	0.064	0.95	0.269	0.084	580	585	560	555	860	850
1	800	0.0367	0.052	0.99	0.264	0.083	650	655	620	615	960	950
1	1000	0.0291	0.043	1.04	0.259	0.081	715	705	670	665	1060	1050

*: 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

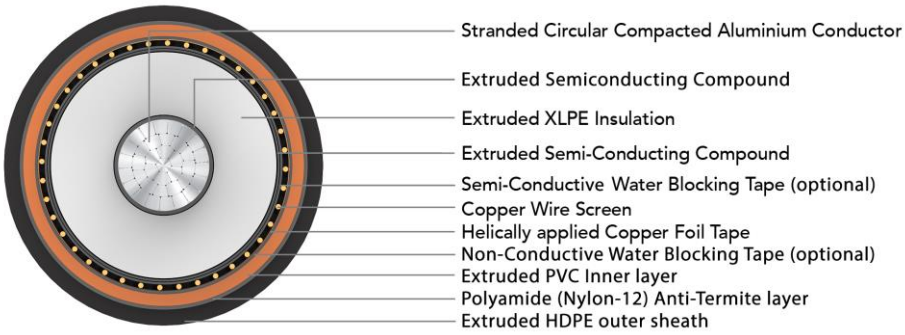
POLYCAB SINGLE CORE MV AS/NZS 1429.1 1.9/3.3 (3.6) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen and Unarmoured

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
1	16	0.8	0.16	3.61	1.3	1.5
1	25	1.25	0.18	2.70	1.2	2.4
1	35	1.75	0.2	2.27	1.2	3.3
1	50	2.5	0.23	1.98	1.1	4.7
1	70	3.5	0.26	1.73	1.1	6.6
1	95	4.75	0.29	1.57	1.1	9.0
1	120	6	0.33	1.48	1.1	11.3
1	150	7.5	0.35	1.42	1.1	14.2
1	185	9.25	0.39	1.37	1.1	17.4
1	240	12	0.44	1.32	1.0	22.6
1	300	15	0.48	1.29	1.0	28.3
1	400	20	0.54	1.26	1.0	37.6
1	500	25	0.56	1.24	0.9	47.2
1	630	31.5	0.57	1.22	0.9	59.6
1	800	40	0.59	1.21	0.8	75.6
1	1000	50	0.62	1.20	0.7	94.5

POLYCAB SINGLE CORE ANTI-TERMITE MV AS/NZS 1429.1 1.9/3.3 (3.6) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen and Unarmoured



Salient Features

- Long life
- UV resistant
- Resistant to chemical exposure
- Resistant to weather exposure
- Resistant to water (AD7/AD8)
- Termite resistant

Application

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

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

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 (E/F current capacity – Based on requirement)

Composite sheath

- *Inner layer : Extruded Polyvinyl Chloride, Colour: Orange*
- *Termite Protection: Polyamide (Nylon -12)*
- *Outer layer: HDPE (Black)*

Bending Radius:

Fixed Installation: 20D
During Installation: 30D

D is diameter over nylon

Standard and References:

AS/NZS 1429.1
AS/NZS 1125
AS/NZS 3808

High Voltage Test

6.5 kV AC

Compliance

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

OUR ACRREDITATION

ISO 9001 ISO 14001 ISO 45001

NABL ABS IRS

POLYCAB SINGLE CORE ANTI-TERMITE MV AS/NZS 1429.1 1.9/3.3 (3.6) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen and Unarmoured

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
MVNZ10AXUAPH001C016SAXXXX	1	16	11.8	13.7	18.0
MVNZ10AXUAPH001C025SAXXXX	1	25	13.1	15.0	21.0
MVNZ10AXUAPH001C035SAXXXX	1	35	14.1	16.0	22.0
MVNZ10AXUAPH001C050SAXXXX	1	50	15.2	17.1	23.0
MVNZ10AXUAPH001C070SAXXXX	1	70	16.8	18.7	25.0
MVNZ10AXUAPH001C095SAXXXX	1	95	18.4	20.3	26.0
MVNZ10AXUAPH001C120SAXXXX	1	120	20	21.9	28.0
MVNZ10AXUAPH001C150SAXXXX	1	150	21.3	23.2	29.0
MVNZ10AXUAPH001C185SAXXXX	1	185	23	24.9	31.0
MVNZ10AXUAPH001C240SAXXXX	1	240	25.3	27.2	33.0
MVNZ10AXUAPH001C300SAXXXX	1	300	27.5	29.4	36.0
MVNZ10AXUAPH001C400SAXXXX	1	400	30.2	32.1	39.0
MVNZ10AXUAPH001C500SAXXXX	1	500	34	35.9	43.0
MVNZ10AXUAPH001C630SAXXXX	1	630	37.6	39.5	47.0
MVNZ10AXUAPH001C800SAXXXX	1	800	41.9	43.8	51.0
MVNZ10AXUAPH001C01KSAXXXX	1	1000	46.8	48.7	57.0

- Above mentioned parameters are based on 3kA/sec earth fault current capacity of copper screen

POLYCAB SINGLE CORE ANTI-TERMITE MV AS/NZS 1429.1 1.9/3.3 (3.6) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen and Unarmoured

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 Ducts		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	16	1.91	2.449	0.26	0.475	0.149	88	84	81	80	99	97
1	25	1.2	1.539	0.3	0.454	0.143	112	108	103	102	130	127
1	35	0.868	1.113	0.34	0.432	0.136	134	129	123	122	157	154
1	50	0.641	0.822	0.38	0.412	0.129	157	152	146	142	189	184
1	70	0.443	0.568	0.43	0.380	0.119	192	186	178	176	236	230
1	95	0.32	0.411	0.49	0.362	0.114	229	221	213	210	287	280
1	120	0.253	0.325	0.55	0.345	0.108	260	252	242	240	332	324
1	150	0.206	0.265	0.59	0.335	0.105	288	281	271	267	376	368
1	185	0.164	0.211	0.65	0.323	0.102	324	317	307	303	432	424
1	240	0.125	0.161	0.73	0.311	0.098	373	367	356	351	511	502
1	300	0.1	0.130	0.81	0.299	0.094	419	414	402	397	586	577
1	400	0.0778	0.102	0.9	0.291	0.091	466	470	457	451	676	673
1	500	0.0605	0.080	0.93	0.284	0.089	525	530	510	505	760	750
1	630	0.0469	0.064	0.95	0.278	0.087	580	585	560	555	860	850
1	800	0.0367	0.052	0.99	0.273	0.086	650	655	620	615	960	950
1	1000	0.0291	0.043	1.04	0.268	0.084	715	705	670	665	1060	1050

*: 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

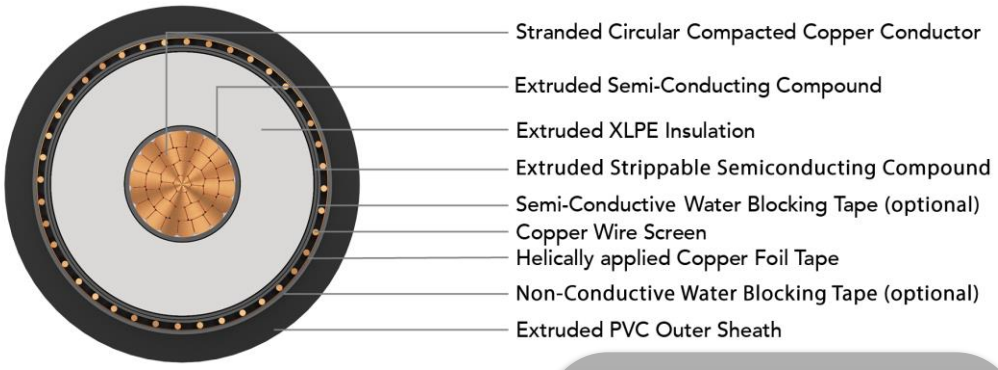
POLYCAB SINGLE CORE ANTI-TERMITE MV AS/NZS 1429.1 1.9/3.3 (3.6) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen and Unarmoured

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
1	16	0.8	0.16	3.61	1.3	1.5
1	25	1.25	0.18	2.70	1.2	2.4
1	35	1.75	0.2	2.27	1.2	3.3
1	50	2.5	0.23	1.98	1.1	4.7
1	70	3.5	0.26	1.73	1.1	6.6
1	95	4.75	0.29	1.57	1.1	9.0
1	120	6	0.33	1.48	1.1	11.3
1	150	7.5	0.35	1.42	1.1	14.2
1	185	9.25	0.39	1.37	1.1	17.4
1	240	12	0.44	1.32	1.0	22.6
1	300	15	0.48	1.29	1.0	28.3
1	400	20	0.54	1.26	1.0	37.6
1	500	25	0.56	1.24	0.9	47.2
1	630	31.5	0.57	1.22	0.9	59.6
1	800	40	0.59	1.21	0.8	75.6
1	1000	50	0.62	1.20	0.7	94.5

POLYCAB SINGLE CORE MV AS/NZS 1429.1 3.8/6.6 (7.2) KV

MV Cable with Copper Conductor, XLPE Insulation, Copper Screen and Unarmoured



Salient Features

- Long life
- UV resistant
- Resistant to chemical exposure
- Resistant to water (AD7 /AD8 with HDPE)
- Resistant to weather exposure
- Termite resistant (Optional)

Application

POLYCAB MV 3.8/6.6 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.

Voltage Rating

Nominal Voltage: 3.8/6.6 (7.2) 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

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)
- 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)

Bending Radius:

Fixed Installation: 12D (PVC) / 15D (HDPE)/20D (Nylon)
During Installation: 18D (PVC) / 25D (HDPE)/30D (Nylon)

D is overall diameter of cable

Standard and References:

AS/NZS 1429.1
AS/NZS 1125
AS/NZS 3808

High Voltage Test (kV AC)	Partial discharge test (kV AC)		Impulse test Voltage (kV peak)
	200% to rated voltage	150% to rated voltage	
12.5	7.6	5.7	60

Compliance

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

OUR ACRREDITATION

ISO 9001 ISO 14001 ISO 45001

POLYCAB SINGLE CORE MV AS/NZS 1429.1 3.8/6.6 (7.2) KV

MV Cable with Copper Conductor, XLPE Insulation, Copper Screen and Unarmoured

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
MVNZ15CXUAPH001C016SAXXXX	1	16	12.9	14.8	19.0
MVNZ15CXUAPH001C025SAXXXX	1	25	14.1	16.0	20.0
MVNZ15CXUAPH001C035SAXXXX	1	35	15.1	17.0	21.0
MVNZ15CXUAPH001C050SAXXXX	1	50	16.2	18.1	22.0
MVNZ15CXUAPH001C070SAXXXX	1	70	17.9	19.8	24.0
MVNZ15CXUAPH001C095SAXXXX	1	95	19.4	21.3	25.0
MVNZ15CXUAPH001C120SAXXXX	1	120	21	22.9	27.0
MVNZ15CXUAPH001C150SAXXXX	1	150	22.4	24.3	28.0
MVNZ15CXUAPH001C185SAXXXX	1	185	24.1	26.0	30.0
MVNZ15CXUAPH001C240SAXXXX	1	240	26.6	28.5	33.0
MVNZ15CXUAPH001C300SAXXXX	1	300	29	30.9	35.0
MVNZ15CXUAPH001C400SAXXXX	1	400	32.2	34.1	39.0
MVNZ15CXUAPH001C500SAXXXX	1	500	36	37.9	43.0
MVNZ15CXUAPH001C630SAXXXX	1	630	39.6	41.5	47.0
MVNZ15CXUAPH001C800SAXXXX	1	800	43.3	45.2	50.0
MVNZ15CXUAPH001C01KSAXXXX	1	1000	47.6	49.5	55.0

- Above mentioned parameters are based on 3kA/sec earth fault current capacity of copper screen

POLYCAB SINGLE CORE MV AS/NZS 1429.1 3.8/6.6 (7.2) KV

MV Cable with Copper Conductor, XLPE Insulation, Copper Screen and Unarmoured

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	16	1.15	1.466	0.22	0.475	0.149	113	109	104	103	128	125
1	25	0.727	0.927	0.25	0.442	0.139	144	140	133	132	167	163
1	35	0.524	0.668	0.28	0.421	0.132	172	166	159	157	203	198
1	50	0.387	0.494	0.31	0.401	0.126	203	196	188	186	243	238
1	70	0.268	0.342	0.36	0.369	0.116	246	239	229	227	303	296
1	95	0.193	0.247	0.4	0.353	0.111	293	285	274	271	369	361
1	120	0.153	0.196	0.45	0.336	0.106	332	323	311	308	426	417
1	150	0.124	0.159	0.49	0.326	0.102	366	361	347	343	481	473
1	185	0.0991	0.128	0.54	0.316	0.099	410	406	391	387	550	543
1	240	0.0754	0.098	0.58	0.305	0.096	470	469	453	447	647	641
1	300	0.0601	0.079	0.59	0.299	0.094	524	526	510	504	739	735
1	400	0.047	0.063	0.62	0.291	0.091	572	590	571	564	837	845
1	500	0.0366	0.051	0.66	0.284	0.089	660	655	640	635	970	960
1	630	0.0283	0.042	0.74	0.276	0.087	735	730	715	710	1110	1100
1	800	0.0221	0.035	0.82	0.269	0.084	770	820	800	790	1260	1250
1	1000	0.0176	0.030	0.91	0.262	0.082	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

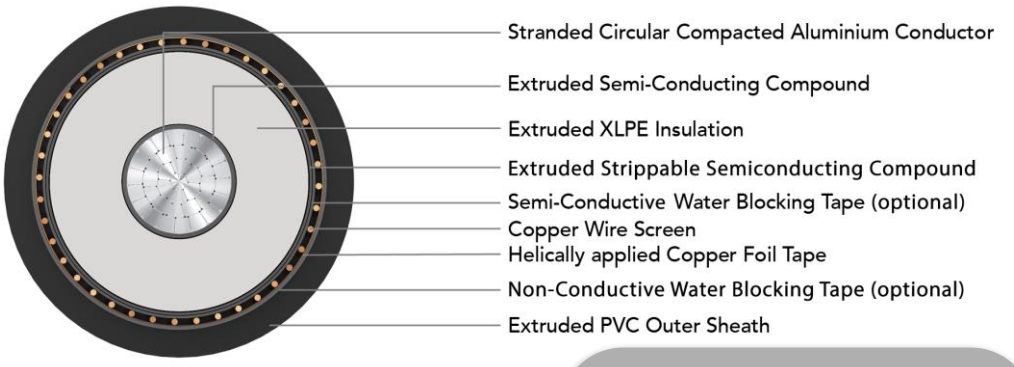
POLYCAB SINGLE CORE MV AS/NZS 1429.1 3.8/6.6 (7.2) KV

MV Cable with Copper Conductor, XLPE Insulation, Copper Screen and Unarmoured

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
1	16	1.12	0.26	2.63	2.1	2.3
1	25	1.75	0.3	2.09	2.0	3.6
1	35	2.45	0.33	1.83	2.0	5.0
1	50	3.5	0.37	1.65	1.9	7.2
1	70	4.9	0.43	1.50	1.9	10.0
1	95	6.65	0.48	1.41	1.8	13.6
1	120	8.4	0.54	1.36	1.8	17.1
1	150	10.5	0.58	1.32	1.8	21.4
1	185	12.95	0.64	1.29	1.7	26.4
1	240	16.8	0.69	1.26	1.7	34.3
1	300	21	0.7	1.24	1.5	42.8
1	400	28	0.74	1.22	1.4	56.9
1	500	35	0.79	1.21	1.3	71.5
1	630	44.1	0.88	1.20	1.3	90.2
1	800	56	0.98	1.19	1.3	114
1	1000	70	1.09	1.19	1.3	143

POLYCAB SINGLE CORE MV AS/NZS 1429.1 3.8/6.6 (7.2) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen and



Salient Features

- Long life
- UV resistant
- Resistant to chemical exposure
- Resistant to water (AD7/AD8 with HDPE)
- Resistant to weather exposure

Application

POLYCAB MV 3.8/6.6 KV XLPE insulated with Aluminium conductor single core cable is suitable to use for power supply to wide networks i.e. Commercial, Industrial and Urban / Residential.

Voltage Rating

Nominal Voltage: 3.8/6.6 (7.2) 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

Construction

- Conductor: Stranded Compacted Circular aluminium 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)
- Outer Sheath: Extruded Polyvinyl Chloride, Colour: Black

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

Bending Radius:

Fixed Installation: 12D (PVC) / 15D (HDPE)
During Installation: 18D (PVC) / 25D (HDPE)

D is overall diameter of cable

Standard and References:

AS/NZS 1429.1
AS/NZS 1125
AS/NZS 3808

High Voltage Test (kV AC)	Partial discharge test (kV AC)		Impulse test Voltage (kV peak)
	200% to rated voltage	150% to rated voltage	
12.5	7.6	5.7	60

Compliance

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

OUR ACRREDITATION

ISO 9001 ISO 14001 ISO 45001

NABL ABS IRS

POLYCAB SINGLE CORE MV AS/NZS 1429.1 3.8/6.6 (7.2) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen and

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
MVNZ15AXUAPH001C016SAXXXX	1	16	12.8	14.7	19.0
MVNZ15AXUAPH001C025SAXXXX	1	25	14.1	16.0	20.0
MVNZ15AXUAPH001C035SAXXXX	1	35	15.1	17.0	21.0
MVNZ15AXUAPH001C050SAXXXX	1	50	16.2	18.1	22.0
MVNZ15AXUAPH001C070SAXXXX	1	70	17.8	19.7	24.0
MVNZ15AXUAPH001C095SAXXXX	1	95	19.4	21.3	25.0
MVNZ15AXUAPH001C120SAXXXX	1	120	21	22.9	27.0
MVNZ15AXUAPH001C150SAXXXX	1	150	22.3	24.2	28.0
MVNZ15AXUAPH001C185SAXXXX	1	185	24	25.9	30.0
MVNZ15AXUAPH001C240SAXXXX	1	240	26.5	28.4	33.0
MVNZ15AXUAPH001C300SAXXXX	1	300	29.1	31.0	35.0
MVNZ15AXUAPH001C400SAXXXX	1	400	32.2	34.1	39.0
MVNZ15AXUAPH001C500SAXXXX	1	500	36	37.9	43.0
MVNZ15AXUAPH001C630SAXXXX	1	630	39.2	41.1	46.0
MVNZ15AXUAPH001C800SAXXXX	1	800	43.1	45.0	50.0
MVNZ15AXUAPH001C01KSAXXXX	1	1000	47.6	49.5	55.0

- Above mentioned parameters are based on 3kA/sec earth fault current capacity of copper screen

POLYCAB SINGLE CORE MV AS/NZS 1429.1 3.8/6.6 (7.2) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen and

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 Ducts		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	16	1.91	2.449	0.22	0.478	0.150	88	84	81	80	99	97
1	25	1.2	1.539	0.25	0.442	0.139	112	108	103	102	130	127
1	35	0.868	1.113	0.28	0.421	0.132	134	129	123	122	157	154
1	50	0.641	0.822	0.31	0.401	0.126	157	152	146	142	189	184
1	70	0.443	0.568	0.36	0.370	0.116	192	186	178	176	236	230
1	95	0.32	0.411	0.4	0.353	0.111	229	221	213	210	287	280
1	120	0.253	0.325	0.45	0.336	0.106	260	252	242	240	332	324
1	150	0.206	0.265	0.49	0.326	0.103	288	281	271	267	376	368
1	185	0.164	0.211	0.53	0.317	0.100	324	317	307	303	432	424
1	240	0.125	0.161	0.58	0.306	0.096	373	367	356	351	511	502
1	300	0.1	0.130	0.6	0.298	0.094	419	414	402	397	586	577
1	400	0.0778	0.102	0.62	0.291	0.091	466	470	457	451	676	673
1	500	0.0605	0.080	0.66	0.284	0.089	525	530	510	505	760	750
1	630	0.0469	0.064	0.73	0.277	0.087	580	585	560	555	860	850
1	800	0.0367	0.052	0.82	0.269	0.085	650	655	620	615	960	950
1	1000	0.0291	0.043	0.91	0.262	0.082	715	705	670	665	1060	1050

*: 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

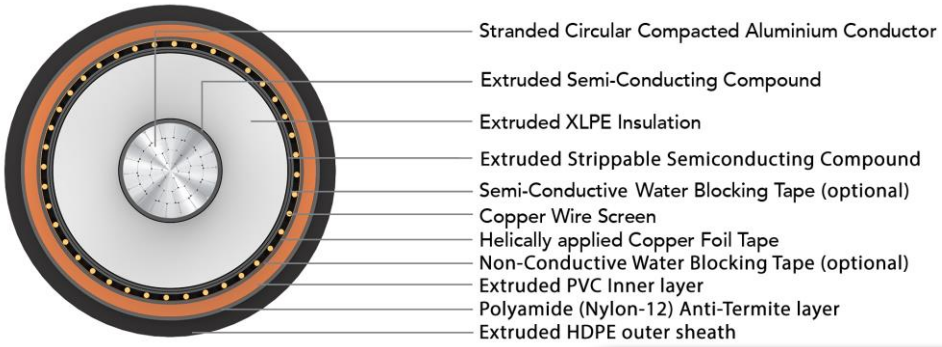
POLYCAB SINGLE CORE MV AS/NZS 1429.1 3.8/6.6 (7.2) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen and

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
1	16	0.8	0.26	3.61	2.1	1.5
1	25	1.25	0.3	2.70	2.0	2.4
1	35	1.75	0.33	2.27	2.0	3.3
1	50	2.5	0.37	1.98	1.9	4.7
1	70	3.5	0.43	1.73	1.9	6.6
1	95	4.75	0.48	1.57	1.8	9.0
1	120	6	0.54	1.48	1.8	11.3
1	150	7.5	0.58	1.42	1.8	14.2
1	185	9.25	0.63	1.37	1.7	17.4
1	240	12	0.69	1.32	1.7	22.6
1	300	15	0.72	1.29	1.5	28.3
1	400	20	0.74	1.26	1.4	37.6
1	500	25	0.79	1.24	1.3	47.2
1	630	31.5	0.87	1.22	1.3	59.6
1	800	40	0.98	1.21	1.3	75.6
1	1000	50	1.09	1.20	1.3	94.5

POLYCAB SINGLE CORE ANTI-TERMITE MV AS/NZS 1429.1 3.8/6.6 (7.2) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen and Unarmoured



Salient Features

- Long life
- UV resistant
- Resistant to chemical exposure
- Resistant to weather exposure
- Resistant to water (AD7/AD8)
- Termite resistant

Application

POLYCAB MV 3.8/6.6 KV XLPE insulated with Aluminium conductor single core cable is suitable to use for power supply to wide networks i.e. Commercial, Industrial and Urban / Residential.

Voltage Rating

Nominal Voltage: 3.8/6.6 (7.2) 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

Construction

- Conductor: Stranded Compacted Circular aluminium 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)

Composite sheath

- *Inner layer : Extruded Polyvinyl Chloride, Colour: Orange*
- *Termite Protection: Polyamide (Nylon -12)*
- *Outer layer: HDPE (Black)*

Bending Radius:

Fixed Installation: 20D
During Installation: 30D

D is diameter over nylon

Standard and References:

AS/NZS 1429.1
AS/NZS 1125
AS/NZS 3808

High Voltage Test (kV AC)	Partial discharge test (kV AC)		Impulse test Voltage (kV peak)
	200% to rated voltage	150% to rated voltage	
12.5	7.6	5.7	60

Compliance

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

OUR ACRREDITATION

ISO 9001 ISO 14001 ISO 45001

NABL ABS IRS

POLYCAB SINGLE CORE ANTI-TERMITE MV AS/NZS 1429.1 3.8/6.6 (7.2) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen and Unarmoured

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
MVNZ15AXUAPH001C016SAXXXX	1	16	12.8	14.7	19.0
MVNZ15AXUAPH001C025SAXXXX	1	25	14.1	16.0	22.0
MVNZ15AXUAPH001C035SAXXXX	1	35	15.1	17.0	23.0
MVNZ15AXUAPH001C050SAXXXX	1	50	16.2	18.1	24.0
MVNZ15AXUAPH001C070SAXXXX	1	70	17.8	19.7	26.0
MVNZ15AXUAPH001C095SAXXXX	1	95	19.4	21.3	27.0
MVNZ15AXUAPH001C120SAXXXX	1	120	21	22.9	29.0
MVNZ15AXUAPH001C150SAXXXX	1	150	22.3	24.2	30.0
MVNZ15AXUAPH001C185SAXXXX	1	185	24	25.9	32.0
MVNZ15AXUAPH001C240SAXXXX	1	240	26.5	28.4	35.0
MVNZ15AXUAPH001C300SAXXXX	1	300	29.1	31.0	37.0
MVNZ15AXUAPH001C400SAXXXX	1	400	32.2	34.1	41.0
MVNZ15AXUAPH001C500SAXXXX	1	500	36	37.9	45.0
MVNZ15AXUAPH001C630SAXXXX	1	630	39.2	41.1	48.0
MVNZ15AXUAPH001C800SAXXXX	1	800	43.1	45.0	53.0
MVNZ15AXUAPH001C01KSAXXXX	1	1000	47.6	49.5	57.0

- Above mentioned parameters are based on 3kA/sec earth fault current capacity of copper screen

POLYCAB SINGLE CORE ANTI-TERMITE MV AS/NZS 1429.1 3.8/6.6 (7.2) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen and Unarmoured

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 Ducts		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	16	1.91	2.449	0.22	0.485	0.153	88	84	81	80	99	97
1	25	1.2	1.539	0.25	0.463	0.145	112	108	103	102	130	127
1	35	0.868	1.113	0.28	0.441	0.138	134	129	123	122	157	154
1	50	0.641	0.822	0.31	0.421	0.132	157	152	146	142	189	184
1	70	0.443	0.568	0.36	0.388	0.122	192	186	178	176	236	230
1	95	0.32	0.411	0.4	0.370	0.116	229	221	213	210	287	280
1	120	0.253	0.325	0.45	0.352	0.111	260	252	242	240	332	324
1	150	0.206	0.265	0.49	0.342	0.107	288	281	271	267	376	368
1	185	0.164	0.211	0.53	0.330	0.104	324	317	307	303	432	424
1	240	0.125	0.161	0.58	0.318	0.100	373	367	356	351	511	502
1	300	0.1	0.130	0.6	0.308	0.097	419	414	402	397	586	577
1	400	0.0778	0.102	0.62	0.301	0.095	466	470	457	451	676	673
1	500	0.0605	0.080	0.66	0.294	0.092	525	530	510	505	760	750
1	630	0.0469	0.064	0.73	0.287	0.090	580	585	560	555	860	850
1	800	0.0367	0.052	0.82	0.279	0.088	650	655	620	615	960	950
1	1000	0.0291	0.043	0.91	0.271	0.085	715	705	670	665	1060	1050

*: 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

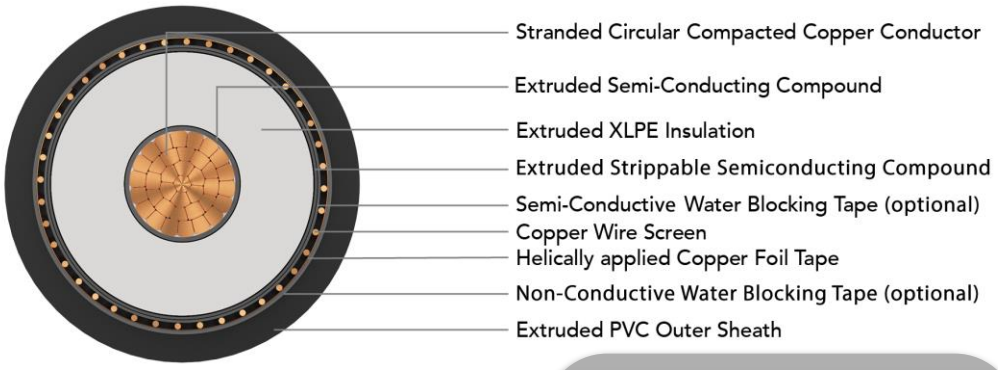
POLYCAB SINGLE CORE ANTI-TERMITE MV AS/NZS 1429.1 3.8/6.6 (7.2) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen and Unarmoured

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
1	16	0.8	0.13	3.61	1.1	1.5
1	25	1.25	0.15	2.70	1.0	2.4
1	35	1.75	0.17	2.27	1.0	3.3
1	50	2.5	0.19	1.98	1.0	4.7
1	70	3.5	0.21	1.73	0.9	6.6
1	95	4.75	0.24	1.57	0.9	9.0
1	120	6	0.27	1.48	0.9	11.3
1	150	7.5	0.29	1.42	0.9	14.2
1	185	9.25	0.32	1.37	0.9	17.4
1	240	12	0.35	1.32	0.8	22.6
1	300	15	0.36	1.29	0.8	28.3
1	400	20	0.37	1.26	0.7	37.6
1	500	25	0.39	1.24	0.7	47.2
1	630	31.5	0.44	1.22	0.7	59.6
1	800	40	0.49	1.21	0.6	75.6
1	1000	50	0.54	1.20	0.6	94.5

POLYCAB SINGLE CORE MV AS/NZS 1429.1 6.35/11 (12) KV

MV Cable with Copper Conductor, XLPE Insulation, Copper Screen and Unarmoured



Salient Features

- Long life
- UV resistant
- Resistant to chemical exposure
- Resistant to water (AD7/AD8 with HDPE)
- Resistant to weather exposure
- Termite resistant (Optional)

Application

POLYCAB MV 6.35/11 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.

Voltage Rating

Nominal Voltage: 6.35/11 (12) 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

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)

Bending Radius:

Fixed Installation: 12D (PVC) / 15D (HDPE)/20D (Nylon)
During Installation: 18D (PVC) / 25D (HDPE)/30D (Nylon)

D is overall diameter of cable

Standard and References:

AS/NZS 1429.1
AS/NZS 1125
AS/NZS 3808

High Voltage Test (kV AC)	Partial discharge test (kV AC)		Impulse test Voltage (kV peak)
	200% to rated voltage	150% to rated voltage	
21	13	10	95

Compliance

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

OUR ACRREDITATION

ISO 9001 ISO 14001 ISO 45001

POLYCAB SINGLE CORE MV AS/NZS 1429.1 6.35/11 (12) KV

MV Cable with Copper Conductor, XLPE Insulation, Copper Screen and Unarmoured

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
MVNZ17CXUAPH001C016SAXXXX	1	16	14.7	16.6	21.0
MVNZ17CXUAPH001C025SAXXXX	1	25	15.9	17.8	22.0
MVNZ17CXUAPH001C035SAXXXX	1	35	16.9	18.8	23.0
MVNZ17CXUAPH001C050SAXXXX	1	50	18	19.9	24.0
MVNZ17CXUAPH001C070SAXXXX	1	70	19.7	21.6	26.0
MVNZ17CXUAPH001C095SAXXXX	1	95	21.2	23.1	27.0
MVNZ17CXUAPH001C120SAXXXX	1	120	22.8	24.7	29.0
MVNZ17CXUAPH001C150SAXXXX	1	150	24.2	26.1	30.0
MVNZ17CXUAPH001C185SAXXXX	1	185	25.9	27.8	32.0
MVNZ17CXUAPH001C240SAXXXX	1	240	28.2	30.1	34.0
MVNZ17CXUAPH001C300SAXXXX	1	300	30.2	32.1	37.0
MVNZ17CXUAPH001C400SAXXXX	1	400	33	34.9	40.0
MVNZ17CXUAPH001C500SAXXXX	1	500	36.4	38.3	43.0
MVNZ17CXUAPH001C630SAXXXX	1	630	40	41.9	47.0
MVNZ17CXUAPH001C800SAXXXX	1	800	43.7	45.6	51.0
MVNZ17CXUAPH001C01KSAXXXX	1	1000	48	49.9	55.0

- Above mentioned parameters are based on 3kA/sec earth fault current capacity of copper screen

POLYCAB SINGLE CORE MV AS/NZS 1429.1 6.35/11 (12) KV

MV Cable with Copper Conductor, XLPE Insulation, Copper Screen and Unarmoured

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	16	1.15	1.466	0.18	0.493	0.155	113	109	104	103	128	125
1	25	0.727	0.927	0.2	0.460	0.144	144	140	133	132	167	163
1	35	0.524	0.668	0.22	0.437	0.137	172	166	159	157	203	198
1	50	0.387	0.494	0.25	0.417	0.131	203	196	188	186	243	238
1	70	0.268	0.342	0.28	0.384	0.121	246	239	229	227	303	296
1	95	0.193	0.247	0.31	0.367	0.115	293	285	274	271	369	361
1	120	0.153	0.196	0.35	0.349	0.110	332	323	311	308	426	417
1	150	0.124	0.159	0.38	0.340	0.107	366	361	347	343	481	473
1	185	0.0991	0.128	0.41	0.328	0.103	410	406	391	387	550	543
1	240	0.0754	0.098	0.46	0.316	0.099	470	469	453	447	647	641
1	300	0.0601	0.079	0.5	0.306	0.096	524	526	510	504	739	735
1	400	0.047	0.063	0.56	0.296	0.093	572	590	571	564	837	845
1	500	0.0366	0.051	0.63	0.286	0.090	660	655	640	635	970	960
1	630	0.0283	0.042	0.7	0.278	0.087	735	730	715	710	1110	1100
1	800	0.0221	0.035	0.78	0.270	0.085	770	820	800	790	1260	1250
1	1000	0.0176	0.030	0.86	0.263	0.083	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

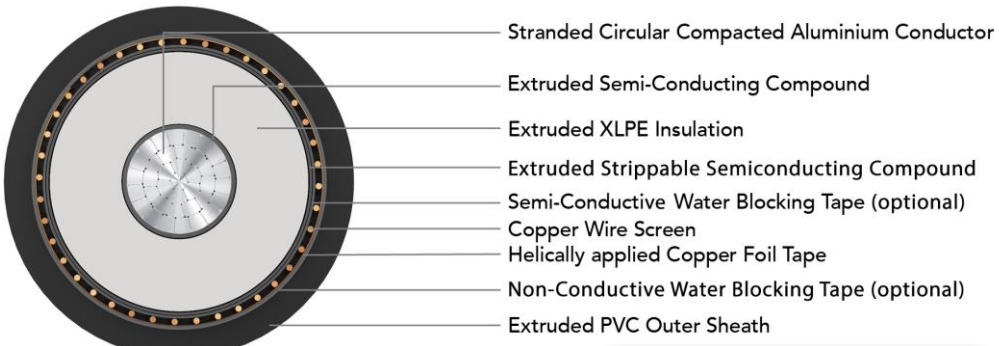
POLYCAB SINGLE CORE MV AS/NZS 1429.1 6.35/11 (12) KV

MV Cable with Copper Conductor, XLPE Insulation, Copper Screen and Unarmoured

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
1	16	1.12	0.36	2.63	2.8	2.3
1	25	1.75	0.4	2.09	2.7	3.6
1	35	2.45	0.44	1.83	2.6	5.0
1	50	3.5	0.5	1.65	2.5	7.2
1	70	4.9	0.56	1.50	2.4	10.0
1	95	6.65	0.62	1.41	2.3	13.6
1	120	8.4	0.7	1.36	2.3	17.1
1	150	10.5	0.76	1.32	2.3	21.4
1	185	12.95	0.82	1.29	2.2	26.4
1	240	16.8	0.92	1.26	2.2	34.3
1	300	21	1	1.24	2.2	42.8
1	400	28	1.12	1.22	2.1	56.9
1	500	35	1.26	1.21	2.1	71.5
1	630	44.1	1.4	1.20	2.1	90.2
1	800	56	1.56	1.19	2.0	114
1	1000	70	1.72	1.19	2.0	143

POLYCAB SINGLE CORE MV AS/NZS 1429.1 6.35/11 (12) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen and



Salient Features

- Long life
- UV resistant
- Resistant to chemical exposure
- Resistant to water (AD7/AD8 with HDPE)
- Resistant to weather exposure

Application

POLYCAB MV 6.35/11 KV XLPE insulated with Aluminium conductor single core cable is suitable to use for power supply to wide networks i.e. Commercial, Industrial and Urban / Residential.

Voltage Rating

Nominal Voltage: 6.35/11 (12) 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

Construction

- Conductor: Stranded Compacted Circular aluminium 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)
- Outer Sheath: Extruded Polyvinyl Chloride, Colour: Black

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

Bending Radius:

Fixed Installation: 12D (PVC) / 15D (HDPE)
During Installation: 18D (PVC) / 25D (HDPE)

D is overall diameter of cable

Standard and References:

AS/NZS 1429.1
AS/NZS 1125
AS/NZS 3808

High Voltage Test (kV AC)	Partial discharge test (kV AC)		Impulse test Voltage (kV peak)
	200% to rated voltage	150% to rated voltage	
21	13	10	95

Compliance

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

OUR ACRREDITATION

ISO 9001 ISO 14001 ISO 45001

NABL ABS IRS

POLYCAB SINGLE CORE MV AS/NZS 1429.1 6.35/11 (12) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen and

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
MVNZ17AXUAPH001C016SAXXXX	1	16	14.6	16.5	20.0
MVNZ17AXUAPH001C025SAXXXX	1	25	15.9	17.8	22.0
MVNZ17AXUAPH001C035SAXXXX	1	35	16.9	18.8	23.0
MVNZ17AXUAPH001C050SAXXXX	1	50	18	19.9	24.0
MVNZ17AXUAPH001C070SAXXXX	1	70	19.6	21.5	25.0
MVNZ17AXUAPH001C095SAXXXX	1	95	21.2	23.1	27.0
MVNZ17AXUAPH001C120SAXXXX	1	120	22.8	24.7	29.0
MVNZ17AXUAPH001C150SAXXXX	1	150	24.1	26.0	30.0
MVNZ17AXUAPH001C185SAXXXX	1	185	25.8	27.7	32.0
MVNZ17AXUAPH001C240SAXXXX	1	240	28.1	30.0	34.0
MVNZ17AXUAPH001C300SAXXXX	1	300	30.3	32.2	37.0
MVNZ17AXUAPH001C400SAXXXX	1	400	33	34.9	40.0
MVNZ17AXUAPH001C500SAXXXX	1	500	36.4	38.3	43.0
MVNZ17AXUAPH001C630SAXXXX	1	630	39.6	41.5	47.0
MVNZ17AXUAPH001C800SAXXXX	1	800	43.5	45.4	51.0
MVNZ17AXUAPH001C01KSAXXXX	1	1000	48	49.9	55.0

- Above mentioned parameters are based on 3kA/sec earth fault current capacity of copper screen

POLYCAB SINGLE CORE MV AS/NZS 1429.1 6.35/11 (12) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen and

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 Ducts		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	16	1.91	2.449	0.17	0.497	0.156	88	84	81	80	99	97
1	25	1.2	1.539	0.2	0.460	0.144	112	108	103	102	130	127
1	35	0.868	1.113	0.22	0.437	0.137	134	129	123	122	157	154
1	50	0.641	0.822	0.25	0.417	0.131	157	152	146	142	189	184
1	70	0.443	0.568	0.28	0.385	0.121	192	186	178	176	236	230
1	95	0.32	0.411	0.31	0.367	0.115	229	221	213	210	287	280
1	120	0.253	0.325	0.35	0.349	0.110	260	252	242	240	332	324
1	150	0.206	0.265	0.37	0.340	0.107	288	281	271	267	376	368
1	185	0.164	0.211	0.41	0.329	0.103	324	317	307	303	432	424
1	240	0.125	0.161	0.46	0.317	0.099	373	367	356	351	511	502
1	300	0.1	0.130	0.5	0.306	0.096	419	414	402	397	586	577
1	400	0.0778	0.102	0.56	0.296	0.093	466	470	457	451	676	673
1	500	0.0605	0.080	0.63	0.286	0.090	525	530	510	505	760	750
1	630	0.0469	0.064	0.69	0.279	0.088	580	585	560	555	860	850
1	800	0.0367	0.052	0.77	0.271	0.085	650	655	620	615	960	950
1	1000	0.0291	0.043	0.86	0.263	0.083	715	705	670	665	1060	1050

*: 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

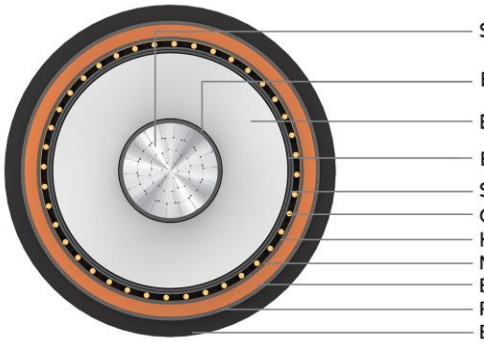
POLYCAB SINGLE CORE MV AS/NZS 1429.1 6.35/11 (12) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen and

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
1	16	0.8	0.34	3.61	2.9	1.5
1	25	1.25	0.4	2.70	2.7	2.4
1	35	1.75	0.44	2.27	2.6	3.3
1	50	2.5	0.5	1.98	2.5	4.7
1	70	3.5	0.56	1.73	2.4	6.6
1	95	4.75	0.62	1.57	2.3	9.0
1	120	6	0.7	1.49	2.3	11.3
1	150	7.5	0.74	1.42	2.3	14.2
1	185	9.25	0.82	1.37	2.2	17.4
1	240	12	0.92	1.32	2.2	22.6
1	300	15	1	1.29	2.2	28.3
1	400	20	1.12	1.26	2.1	37.6
1	500	25	1.26	1.24	2.1	47.2
1	630	31.5	1.38	1.22	2.1	59.6
1	800	40	1.54	1.21	2.0	75.6
1	1000	50	1.72	1.20	2.0	94.5

POLYCAB SINGLE CORE ANTI-TERMITE MV AS/NZS 1429.1 6.35/11 (12) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen and Unarmoured



Salient Features

- Long life
- UV resistant
- Resistant to chemical exposure
- Resistant to weather exposure
- Resistant to water (AD7/AD8)
- Termite resistant

Application

POLYCAB MV 6.35/11 KV XLPE insulated with Aluminium conductor single core cable is suitable to use for power supply to wide networks i.e. Commercial, Industrial and Urban / Residential.

Voltage Rating

Nominal Voltage: 6.35/11 (12) 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

Construction

- Conductor: Stranded Compacted Circular aluminium 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)

Composite sheath

- *Inner layer : Extruded Polyvinyl Chloride, Colour: Orange*
- *Termite Protection: Polyamide (Nylon -12)*
- *Outer layer: HDPE (Black)*

Bending Radius:

Fixed Installation: 20D
During Installation: 30D

D is diameter over nylon

Standard and References:

AS/NZS 1429.1
AS/NZS 1125
AS/NZS 3808

High Voltage Test (kV AC)	Partial discharge test (kV AC)		Impulse test Voltage (kV peak)
	200% to rated voltage	150% to rated voltage	
21	13	10	95

Compliance

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

OUR ACRREDITATION

ISO 9001 ISO 14001 ISO 45001

NABL ABS IRS

POLYCAB SINGLE CORE ANTI-TERMITE MV AS/NZS 1429.1 6.35/11 (12) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen and Unarmoured

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
MVNZ17AXUAPH001C016SAXXXX	1	16	14.6	16.5	21.0
MVNZ17AXUAPH001C025SAXXXX	1	25	15.9	17.8	24.0
MVNZ17AXUAPH001C035SAXXXX	1	35	16.9	18.8	25.0
MVNZ17AXUAPH001C050SAXXXX	1	50	18	19.9	26.0
MVNZ17AXUAPH001C070SAXXXX	1	70	19.6	21.5	28.0
MVNZ17AXUAPH001C095SAXXXX	1	95	21.2	23.1	29.0
MVNZ17AXUAPH001C120SAXXXX	1	120	22.8	24.7	31.0
MVNZ17AXUAPH001C150SAXXXX	1	150	24.1	26.0	32.0
MVNZ17AXUAPH001C185SAXXXX	1	185	25.8	27.7	34.0
MVNZ17AXUAPH001C240SAXXXX	1	240	28.1	30.0	36.0
MVNZ17AXUAPH001C300SAXXXX	1	300	30.3	32.2	39.0
MVNZ17AXUAPH001C400SAXXXX	1	400	33	34.9	42.0
MVNZ17AXUAPH001C500SAXXXX	1	500	36.4	38.3	45.0
MVNZ17AXUAPH001C630SAXXXX	1	630	39.6	41.5	49.0
MVNZ17AXUAPH001C800SAXXXX	1	800	43.5	45.4	53.0
MVNZ17AXUAPH001C01KSAXXXX	1	1000	48	49.9	58.0

- Above mentioned parameters are based on 3kA/sec earth fault current capacity of copper screen

POLYCAB SINGLE CORE ANTI-TERMITE MV AS/NZS 1429.1 6.35/11 (12) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen and Unarmoured

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 Ducts		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	16	1.91	2.449	0.17	0.504	0.158	88	84	81	80	99	97
1	25	1.2	1.539	0.2	0.479	0.150	112	108	103	102	130	127
1	35	0.868	1.113	0.22	0.456	0.143	134	129	123	122	157	154
1	50	0.641	0.822	0.25	0.435	0.137	157	152	146	142	189	184
1	70	0.443	0.568	0.28	0.402	0.126	192	186	178	176	236	230
1	95	0.32	0.411	0.31	0.383	0.120	229	221	213	210	287	280
1	120	0.253	0.325	0.35	0.364	0.114	260	252	242	240	332	324
1	150	0.206	0.265	0.37	0.353	0.111	288	281	271	267	376	368
1	185	0.164	0.211	0.41	0.341	0.107	324	317	307	303	432	424
1	240	0.125	0.161	0.46	0.327	0.103	373	367	356	351	511	502
1	300	0.1	0.130	0.5	0.316	0.099	419	414	402	397	586	577
1	400	0.0778	0.102	0.56	0.306	0.096	466	470	457	451	676	673
1	500	0.0605	0.080	0.63	0.296	0.093	525	530	510	505	760	750
1	630	0.0469	0.064	0.69	0.288	0.091	580	585	560	555	860	850
1	800	0.0367	0.051	0.77	0.280	0.088	650	655	620	615	960	950
1	1000	0.0291	0.043	0.86	0.272	0.086	715	705	670	665	1060	1050

*: 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

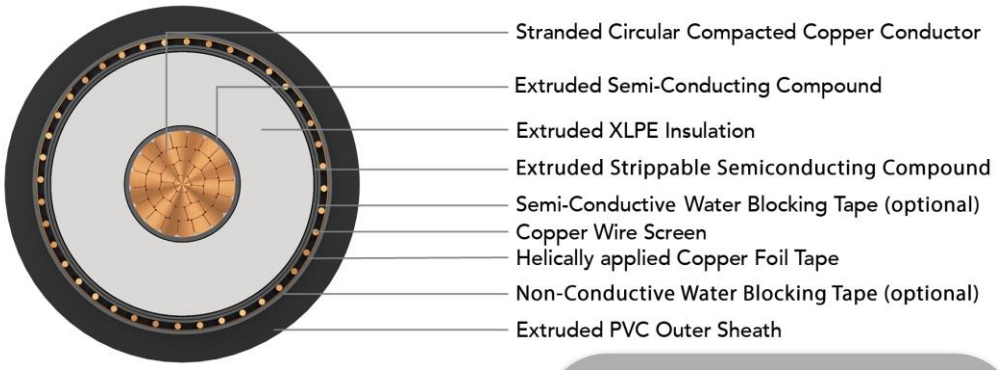
POLYCAB SINGLE CORE ANTI-TERMITE MV AS/NZS 1429.1 6.35/11 (12) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen and Unarmoured

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
1	16	0.8	0.34	3.61	2.9	1.5
1	25	1.25	0.4	2.70	2.7	2.4
1	35	1.75	0.44	2.27	2.6	3.3
1	50	2.5	0.5	1.98	2.5	4.7
1	70	3.5	0.56	1.73	2.4	6.6
1	95	4.75	0.62	1.57	2.3	9.0
1	120	6	0.7	1.49	2.3	11.3
1	150	7.5	0.74	1.42	2.3	14.2
1	185	9.25	0.82	1.37	2.2	17.4
1	240	12	0.92	1.32	2.2	22.6
1	300	15	1	1.29	2.2	28.3
1	400	20	1.12	1.26	2.1	37.6
1	500	25	1.26	1.24	2.1	47.2
1	630	31.5	1.38	1.22	2.1	59.6
1	800	40	1.54	1.21	2.0	75.6
1	1000	50	1.72	1.20	2.0	94.5

POLYCAB SINGLE CORE MV AS/NZS 1429.1 12.7/22 (24) KV

MV Cable with Copper Conductor, XLPE Insulation, Copper Screen and Unarmoured



Salient Features

- Long life
- UV resistant
- Resistant to chemical exposure
- Resistant to water (AD7/AD8 with HDPE)
- Resistant to weather exposure
- Termite resistant (Optional)

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.

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

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)*

Bending Radius:

Fixed Installation: 12D (PVC) / 15D (HDPE)/20D (Nylon)
During Installation: 18D (PVC) / 25D (HDPE)/30D (Nylon)

D is overall diameter of cable

Standard and References:

AS/NZS 1429.1
AS/NZS 1125
AS/NZS 3808

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

Compliance

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

OUR ACRREDITATION

ISO 9001 ISO 14001 ISO 45001

POLYCAB SINGLE CORE MV AS/NZS 1429.1 12.7/22 (24) KV

MV Cable with Copper Conductor, XLPE Insulation, Copper Screen and Unarmoured

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

POLYCAB SINGLE CORE MV AS/NZS 1429.1 12.7/22 (24) KV

MV Cable with Copper Conductor, XLPE Insulation, Copper Screen and Unarmoured

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
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

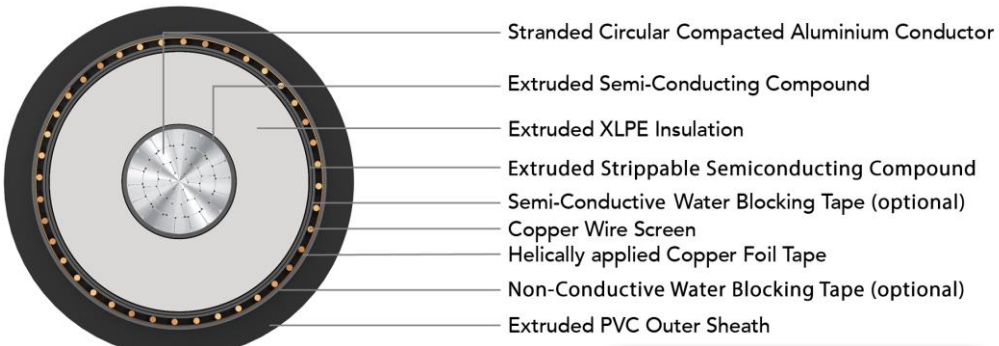
POLYCAB SINGLE CORE MV AS/NZS 1429.1 12.7/22 (24) KV

MV Cable with Copper Conductor, XLPE Insulation, Copper Screen and Unarmoured

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
1	35	2.45	0.64	1.83	3.7	5.0
1	50	3.5	0.68	1.66	3.5	7.2
1	70	4.9	0.8	1.50	3.4	10.0
1	95	6.65	0.88	1.41	3.2	13.6
1	120	8.4	0.96	1.36	3.1	17.1
1	150	10.5	1.04	1.32	3.1	21.4
1	185	12.95	1.12	1.29	3.0	26.4
1	240	16.8	1.24	1.26	2.9	34.3
1	300	21	1.32	1.24	2.9	42.8
1	400	28	1.48	1.22	2.8	56.9
1	500	35	1.64	1.21	2.7	71.5
1	630	44.1	1.84	1.20	2.7	90.2
1	800	56	1.99	1.19	2.7	114
1	1000	70	2.23	1.19	2.6	143

POLYCAB SINGLE CORE MV AS/NZS 1429.1 12.7/22 (24) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen and



Salient Features

- Long life
- UV resistant
- Resistant to chemical exposure
- Resistant to water (AD7/AD8 with HDPE)
- Resistant to weather exposure

Application

POLYCAB MV 12.7/22 KV XLPE insulated with Aluminium conductor single core cable is suitable to use for power supply to wide networks i.e. Commercial, Industrial and Urban / Residential.

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

Construction

- Conductor: Stranded Compacted Circular aluminium 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)
- Outer Sheath: Extruded Polyvinyl Chloride, Colour: Black

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

Bending Radius:

Fixed Installation: 12D (PVC) / 15D (HDPE)
During Installation: 18D (PVC) / 25D (HDPE)

D is overall diameter of cable

Standard and References:

AS/NZS 1429.1
AS/NZS 1125
AS/NZS 3808

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

Compliance

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

OUR ACRREDITATION

ISO 9001 ISO 14001 ISO 45001

NABL ABS IRS

POLYCAB SINGLE CORE MV AS/NZS 1429.1 12.7/22 (24) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen and

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
MVNZ54AXUAPH001C035SAXXXX	1	35	21.1	23.0	27.0
MVNZ54AXUAPH001C050SAXXXX	1	50	22.2	24.1	28.0
MVNZ54AXUAPH001C070SAXXXX	1	70	23.8	25.7	30.0
MVNZ54AXUAPH001C095SAXXXX	1	95	25.4	27.3	31.0
MVNZ54AXUAPH001C120SAXXXX	1	120	27	28.9	33.0
MVNZ54AXUAPH001C150SAXXXX	1	150	28.3	30.2	35.0
MVNZ54AXUAPH001C185SAXXXX	1	185	30	31.9	36.0
MVNZ54AXUAPH001C240SAXXXX	1	240	32.3	34.2	39.0
MVNZ54AXUAPH001C300SAXXXX	1	300	34.5	36.4	41.0
MVNZ54AXUAPH001C400SAXXXX	1	400	37.2	39.1	44.0
MVNZ54AXUAPH001C500SAXXXX	1	500	40.6	42.5	48.0
MVNZ54AXUAPH001C630SAXXXX	1	630	43.8	45.7	51.0
MVNZ54AXUAPH001C800SAXXXX	1	800	47.7	49.6	55.0
MVNZ54AXUAPH001C01KSAXXXX	1	1000	52.2	54.1	60.0

- Above mentioned parameters are based on 3kA/sec earth fault current capacity of copper screen

POLYCAB SINGLE CORE MV AS/NZS 1429.1 12.7/22 (24) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen and

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 Ducts		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	0.868	1.113	0.16	0.472	0.148	134	129	123	122	157	154
1	50	0.641	0.822	0.17	0.450	0.142	157	152	146	142	189	184
1	70	0.443	0.568	0.2	0.418	0.131	192	186	178	176	236	230
1	95	0.32	0.411	0.22	0.397	0.125	229	221	213	210	287	280
1	120	0.253	0.325	0.24	0.379	0.119	260	252	242	240	332	324
1	150	0.206	0.265	0.25	0.368	0.116	288	281	271	267	376	368
1	185	0.164	0.211	0.28	0.356	0.112	324	317	307	303	432	424
1	240	0.125	0.161	0.31	0.341	0.107	373	367	356	351	511	502
1	300	0.1	0.130	0.33	0.329	0.103	419	414	402	397	586	577
1	400	0.0778	0.102	0.37	0.318	0.100	466	470	457	451	676	673
1	500	0.0605	0.080	0.41	0.306	0.096	525	530	510	505	760	750
1	630	0.0469	0.063	0.45	0.297	0.093	580	585	560	555	860	850
1	800	0.0367	0.051	0.5	0.288	0.090	650	655	620	615	960	950
1	1000	0.0291	0.043	0.56	0.279	0.088	715	705	670	665	1060	1050

*: 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

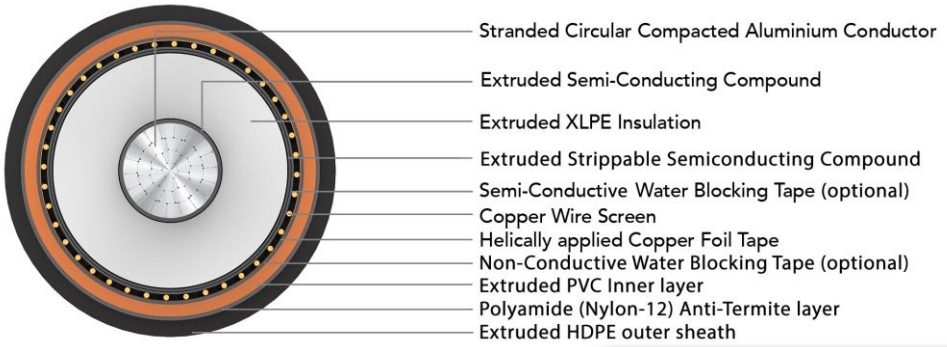
POLYCAB SINGLE CORE MV AS/NZS 1429.1 12.7/22 (24) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen and

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
1	35	1.75	0.64	2.27	3.7	3.3
1	50	2.5	0.68	1.98	3.5	4.7
1	70	3.5	0.8	1.73	3.4	6.6
1	95	4.75	0.88	1.57	3.2	9.0
1	120	6	0.96	1.49	3.1	11.3
1	150	7.5	1	1.43	3.1	14.2
1	185	9.25	1.12	1.37	3.0	17.4
1	240	12	1.24	1.32	2.9	22.6
1	300	15	1.32	1.29	2.9	28.3
1	400	20	1.48	1.26	2.8	37.6
1	500	25	1.64	1.24	2.7	47.2
1	630	31.5	1.8	1.22	2.7	59.6
1	800	40	1.99	1.21	2.7	75.6
1	1000	50	2.23	1.20	2.6	94.5

POLYCAB SINGLE CORE ANTI-TERMITE MV AS/NZS 1429.1 12.7/22 (24) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen and Unarmoured



Salient Features

- Long life
- UV resistant
- Resistant to chemical exposure
- Resistant to weather exposure
- Resistant to water (AD7/AD8)
- Termite resistant

Application

POLYCAB MV 12.7/22 KV XLPE insulated with Aluminium conductor single core cable is suitable to use for power supply to wide networks i.e. Commercial, Industrial and Urban / Residential.

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

Construction

- Conductor: Stranded Compacted Circular aluminium 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)

Composite sheath

- *Inner layer : Extruded Polyvinyl Chloride, Colour: Orange*
- *Termite Protection: Polyamide (Nylon -12)*
- *Outer layer: HDPE (Black)*

Bending Radius:

Fixed Installation: 20D
During Installation: 30D

D is diameter over nylon

Standard and References:

AS/NZS 1429.1
AS/NZS 1125
AS/NZS 3808

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

Compliance

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

OUR ACRREDITATION

ISO 9001 ISO 14001 ISO 45001

NABL ABS IRS

POLYCAB SINGLE CORE ANTI-TERMITE MV AS/NZS 1429.1 12.7/22 (24) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen and Unarmoured

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
MVNZ54AXUAPH001C035SAXXXX	1	35	21.1	23.0	29.0
MVNZ54AXUAPH001C050SAXXXX	1	50	22.2	24.1	30.0
MVNZ54AXUAPH001C070SAXXXX	1	70	23.8	25.7	32.0
MVNZ54AXUAPH001C095SAXXXX	1	95	25.4	27.3	34.0
MVNZ54AXUAPH001C120SAXXXX	1	120	27	28.9	36.0
MVNZ54AXUAPH001C150SAXXXX	1	150	28.3	30.2	37.0
MVNZ54AXUAPH001C185SAXXXX	1	185	30	31.9	39.0
MVNZ54AXUAPH001C240SAXXXX	1	240	32.3	34.2	41.0
MVNZ54AXUAPH001C300SAXXXX	1	300	34.5	36.4	43.0
MVNZ54AXUAPH001C400SAXXXX	1	400	37.2	39.1	46.0
MVNZ54AXUAPH001C500SAXXXX	1	500	40.6	42.5	50.0
MVNZ54AXUAPH001C630SAXXXX	1	630	43.8	45.7	53.0
MVNZ54AXUAPH001C800SAXXXX	1	800	47.7	49.6	58.0
MVNZ54AXUAPH001C01KSAXXXX	1	1000	52.2	54.1	63.0

- Above mentioned parameters are based on 3kA/sec earth fault current capacity of copper screen

POLYCAB SINGLE CORE ANTI-TERMITE MV AS/NZS 1429.1 12.7/22 (24) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen and Unarmoured

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 Ducts		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	0.868	1.113	0.16	0.488	0.153	134	129	123	122	157	154
1	50	0.641	0.822	0.17	0.466	0.146	157	152	146	142	189	184
1	70	0.443	0.568	0.2	0.433	0.136	192	186	178	176	236	230
1	95	0.32	0.411	0.22	0.412	0.129	229	221	213	210	287	280
1	120	0.253	0.325	0.24	0.394	0.124	260	252	242	240	332	324
1	150	0.206	0.265	0.25	0.380	0.119	288	281	271	267	376	368
1	185	0.164	0.211	0.28	0.368	0.116	324	317	307	303	432	424
1	240	0.125	0.161	0.31	0.351	0.110	373	367	356	351	511	502
1	300	0.1	0.129	0.33	0.339	0.106	419	414	402	397	586	577
1	400	0.0778	0.101	0.37	0.327	0.103	466	470	457	451	676	673
1	500	0.0605	0.080	0.41	0.315	0.099	525	530	510	505	760	750
1	630	0.0469	0.063	0.45	0.306	0.096	580	585	560	555	860	850
1	800	0.0367	0.051	0.5	0.296	0.093	650	655	620	615	960	950
1	1000	0.0291	0.042	0.56	0.288	0.091	715	705	670	665	1060	1050

*: 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

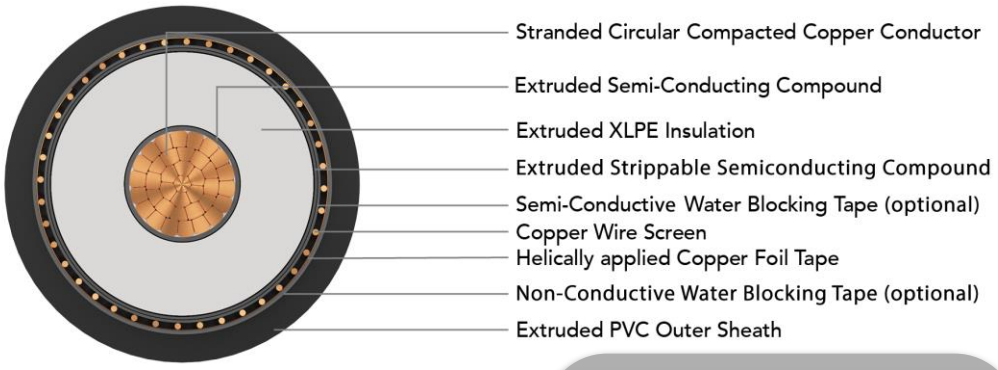
POLYCAB SINGLE CORE ANTI-TERMITE MV AS/NZS 1429.1 12.7/22 (24) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen and Unarmoured

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
1	35	1.75	0.64	2.27	3.7	3.3
1	50	2.5	0.68	1.98	3.5	4.7
1	70	3.5	0.8	1.73	3.4	6.6
1	95	4.75	0.88	1.57	3.2	9.0
1	120	6	0.96	1.49	3.1	11.3
1	150	7.5	1	1.43	3.1	14.2
1	185	9.25	1.12	1.37	3.0	17.4
1	240	12	1.24	1.32	2.9	22.6
1	300	15	1.32	1.29	2.9	28.3
1	400	20	1.48	1.26	2.8	37.6
1	500	25	1.64	1.24	2.7	47.2
1	630	31.5	1.8	1.22	2.7	59.6
1	800	40	1.99	1.21	2.7	75.6
1	1000	50	2.23	1.20	2.6	94.5

POLYCAB SINGLE CORE MV AS/NZS 1429.1 19/33 (36) KV

MV Cable with Copper Conductor, XLPE Insulation, Copper Screen and Unarmoured



Salient Features

- Long life
- UV resistant
- Resistant to chemical exposure
- Resistant to water (AD7/AD8 with HDPE)
- Resistant to weather exposure
- Termite resistant (Optional)

Application

POLYCAB MV 19/33 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.

Voltage Rating

Nominal Voltage: 19/33 (36) 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

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)
- 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)

Bending Radius:

Fixed Installation: 12D (PVC) / 15D (HDPE)/20D (Nylon)
During Installation: 18D (PVC) / 25D (HDPE)/30D (Nylon)

D is overall diameter of cable

Standard and References:

AS/NZS 1429.1
AS/NZS 1125
AS/NZS 3808

High Voltage Test (kV AC)	Partial discharge test (kV AC)		Impulse test Voltage (kV peak)
	200% to rated voltage	150% to rated voltage	
63	38	29	200

Compliance

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

OUR ACRREDITATION

ISO 9001 ISO 14001 ISO 45001

POLYCAB SINGLE CORE MV AS/NZS 1429.1 19/33 (36) KV

MV Cable with Copper Conductor, XLPE Insulation, Copper Screen and Unarmoured

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
MVNZ13CXUAPH001C050SAXXXX	1	50	27.2	29.1	33.0
MVNZ13CXUAPH001C070SAXXXX	1	70	28.9	30.8	35.0
MVNZ13CXUAPH001C095SAXXXX	1	95	30.4	32.3	37.0
MVNZ13CXUAPH001C120SAXXXX	1	120	32	33.9	38.0
MVNZ13CXUAPH001C150SAXXXX	1	150	33.4	35.3	40.0
MVNZ13CXUAPH001C185SAXXXX	1	185	35.1	37.0	42.0
MVNZ13CXUAPH001C240SAXXXX	1	240	37.4	39.3	44.0
MVNZ13CXUAPH001C300SAXXXX	1	300	39.4	41.3	46.0
MVNZ13CXUAPH001C400SAXXXX	1	400	42.2	44.1	49.0
MVNZ13CXUAPH001C500SAXXXX	1	500	45.6	47.5	53.0
MVNZ13CXUAPH001C630SAXXXX	1	630	49.2	51.1	57.0
MVNZ13CXUAPH001C800SAXXXX	1	800	52.9	54.8	61.0
MVNZ13CXUAPH001C01KSAXXXX	1	1000	57.2	59.1	65.0

- Above mentioned parameters are based on 3kA/sec earth fault current capacity of copper screen

POLYCAB SINGLE CORE MV AS/NZS 1429.1 19/33 (36) KV

MV Cable with Copper Conductor, XLPE Insulation, Copper Screen and Unarmoured

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	50	0.387	0.494	0.14	0.486	0.153	203	196	188	186	243	238
1	70	0.268	0.342	0.15	0.449	0.141	246	239	229	227	303	296
1	95	0.193	0.247	0.17	0.429	0.135	293	285	274	271	369	361
1	120	0.153	0.196	0.18	0.409	0.128	332	323	311	308	426	417
1	150	0.124	0.159	0.19	0.396	0.124	366	361	347	343	481	473
1	185	0.0991	0.127	0.21	0.382	0.120	410	406	391	387	550	543
1	240	0.0754	0.098	0.23	0.367	0.115	470	469	453	447	647	641
1	300	0.0601	0.079	0.25	0.354	0.111	524	526	510	504	739	735
1	400	0.047	0.063	0.27	0.341	0.107	572	590	571	564	837	845
1	500	0.0366	0.050	0.3	0.327	0.103	660	655	640	635	970	960
1	630	0.0283	0.041	0.33	0.316	0.099	735	730	715	710	1110	1100
1	800	0.0221	0.034	0.37	0.306	0.096	770	820	800	790	1260	1250
1	1000	0.0176	0.029	0.4	0.297	0.093	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

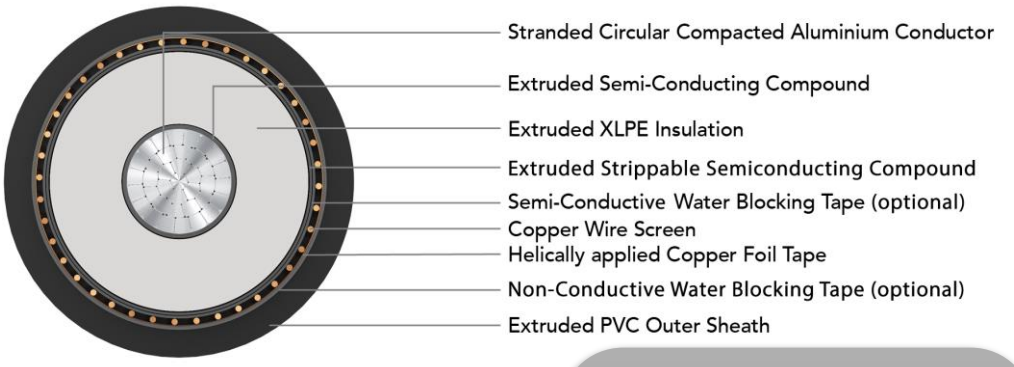
POLYCAB SINGLE CORE MV AS/NZS 1429.1 19/33 (36) KV

MV Cable with Copper Conductor, XLPE Insulation, Copper Screen and Unarmoured

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
1	50	3.5	0.84	1.66	4.1	7.2
1	70	4.9	0.9	1.50	3.9	10.0
1	95	6.65	1.01	1.41	3.7	13.6
1	120	8.4	1.07	1.36	3.6	17.1
1	150	10.5	1.13	1.32	3.5	21.4
1	185	12.95	1.25	1.29	3.4	26.4
1	240	16.8	1.37	1.26	3.3	34.3
1	300	21	1.49	1.24	3.2	42.8
1	400	28	1.61	1.22	3.1	56.9
1	500	35	1.79	1.21	3.0	71.5
1	630	44.1	1.97	1.20	2.9	90.2
1	800	56	2.21	1.19	2.9	114
1	1000	70	2.39	1.19	2.8	143

POLYCAB SINGLE CORE MV AS/NZS 1429.1 19/33 (36) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen and Unarmoured



Salient Features

- Long life
- UV resistant
- Resistant to chemical exposure
- Resistant to water (AD7/AD8 with HDPE)
- Resistant to weather exposure

Application

POLYCAB MV 19/33 KV XLPE insulated with Aluminium conductor single core cable is suitable to use for power supply to wide networks i.e. Commercial, Industrial and Urban / Residential.

Voltage Rating

Nominal Voltage: 19/33 (36) 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

Construction

- Conductor: Stranded Compacted Circular aluminium 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)
- Outer Sheath: Extruded Polyvinyl Chloride, Colour: Black
  (Alternative Sheath: PVC+HDPE Composite Sheath or LSZH Outer sheath and parameters will change accordingly)

Bending Radius:

Fixed Installation: 12D (PVC) / 15D (HDPE)
During Installation: 18D (PVC) / 25D (HDPE)

D is overall diameter of cable

Standard and References:

AS/NZS 1429.1
AS/NZS 1125
AS/NZS 3808

High Voltage Test (kV AC)	Partial discharge test (kV AC)		Impulse test Voltage (kV peak)
	200% to rated voltage	150% to rated voltage	
63	38	29	200

Compliance

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

OUR ACRREDITATION

ISO 9001 ISO 14001 ISO 45001

NABL ABS IRS

POLYCAB SINGLE CORE MV AS/NZS 1429.1 19/33 (36) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen and Unarmoured

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
MVNZ13AXUAPH001C050SAXXXX	1	50	27.2	29.1	33.0
MVNZ13AXUAPH001C070SAXXXX	1	70	28.8	30.7	35.0
MVNZ13AXUAPH001C095SAXXXX	1	95	30.4	32.3	37.0
MVNZ13AXUAPH001C120SAXXXX	1	120	32	33.9	38.0
MVNZ13AXUAPH001C150SAXXXX	1	150	33.3	35.2	40.0
MVNZ13AXUAPH001C185SAXXXX	1	185	35	36.9	42.0
MVNZ13AXUAPH001C240SAXXXX	1	240	37.3	39.2	44.0
MVNZ13AXUAPH001C300SAXXXX	1	300	39.5	41.4	46.0
MVNZ13AXUAPH001C400SAXXXX	1	400	42.2	44.1	49.0
MVNZ13AXUAPH001C500SAXXXX	1	500	45.6	47.5	53.0
MVNZ13AXUAPH001C630SAXXXX	1	630	48.8	50.7	56.0
MVNZ13AXUAPH001C800SAXXXX	1	800	52.7	54.6	60.0
MVNZ13AXUAPH001C01KSAXXXX	1	1000	57.2	59.1	65.0

- Above mentioned parameters are based on 3kA/sec earth fault current capacity of copper screen

POLYCAB SINGLE CORE MV AS/NZS 1429.1 19/33 (36) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen and Unarmoured

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 Ducts		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	50	0.641	0.822	0.14	0.486	0.153	157	152	146	142	189	184
1	70	0.443	0.568	0.15	0.450	0.141	192	186	178	176	236	230
1	95	0.32	0.411	0.17	0.429	0.135	229	221	213	210	287	280
1	120	0.253	0.325	0.18	0.409	0.128	260	252	242	240	332	324
1	150	0.206	0.265	0.19	0.397	0.125	288	281	271	267	376	368
1	185	0.164	0.211	0.21	0.383	0.120	324	317	307	303	432	424
1	240	0.125	0.161	0.23	0.367	0.115	373	367	356	351	511	502
1	300	0.1	0.129	0.25	0.354	0.111	419	414	402	397	586	577
1	400	0.0778	0.101	0.27	0.341	0.107	466	470	457	451	676	673
1	500	0.0605	0.080	0.3	0.327	0.103	525	530	510	505	760	750
1	630	0.0469	0.063	0.33	0.317	0.100	580	585	560	555	860	850
1	800	0.0367	0.051	0.36	0.306	0.096	650	655	620	615	960	950
1	1000	0.0291	0.042	0.4	0.297	0.093	715	705	670	665	1060	1050

*: 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

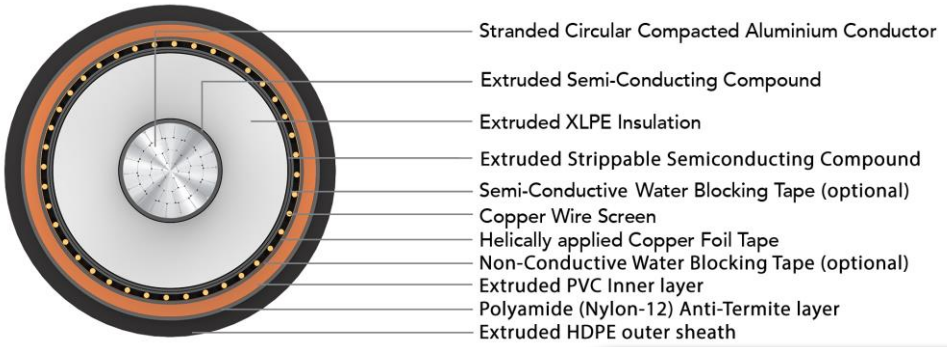
POLYCAB SINGLE CORE MV AS/NZS 1429.1 19/33 (36) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen and Unarmoured

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
1	50	2.5	0.84	1.98	4.1	4.7
1	70	3.5	0.9	1.73	3.9	6.6
1	95	4.75	1.01	1.57	3.7	9.0
1	120	6	1.07	1.49	3.6	11.3
1	150	7.5	1.13	1.43	3.5	14.2
1	185	9.25	1.25	1.37	3.4	17.4
1	240	12	1.37	1.32	3.3	22.6
1	300	15	1.49	1.29	3.2	28.3
1	400	20	1.61	1.26	3.1	37.6
1	500	25	1.79	1.24	3.0	47.2
1	630	31.5	1.97	1.22	3.0	59.6
1	800	40	2.15	1.21	2.9	75.6
1	1000	50	2.39	1.20	2.8	94.5

POLYCAB SINGLE CORE ANTI-TERMITE MV AS/NZS 1429.1 19/33 (36) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen and Unarmoured



Salient Features

- Long life
- UV resistant
- Resistant to chemical exposure
- Resistant to weather exposure
- Resistant to water (AD7/AD8)
- Termite resistant

Application

POLYCAB MV 19/33 KV XLPE insulated with Aluminium conductor single core cable is suitable to use for power supply to wide networks i.e. Commercial, Industrial and Urban / Residential.

Voltage Rating

Nominal Voltage: 19/33 (36) 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

Construction

- Conductor: Stranded Compacted Circular aluminium 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)

Composite sheath

- *Inner layer : Extruded Polyvinyl Chloride, Colour: Orange*
- *Termite Protection: Polyamide (Nylon -12)*
- *Outer layer: HDPE (Black)*

Bending Radius:

Fixed Installation: 20D
During Installation: 30D

D is diameter over nylon

Standard and References:

AS/NZS 1429.1
AS/NZS 1125
AS/NZS 3808

High Voltage Test (kV AC)	Partial discharge test (kV AC)		Impulse test Voltage (kV peak)
	200% to rated voltage	150% to rated voltage	
63	38	29	200

Compliance

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

OUR ACRREDITATION

ISO 9001 ISO 14001 ISO 45001

NABL ABS IRS

POLYCAB SINGLE CORE ANTI-TERMITE MV AS/NZS 1429.1 19/33 (36) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen and Unarmoured

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
MVNZ54AXUAPH001C050SAXXXX	1	50	27.2	29.1	36.0
MVNZ54AXUAPH001C070SAXXXX	1	70	28.8	30.7	37.0
MVNZ54AXUAPH001C095SAXXXX	1	95	30.4	32.3	39.0
MVNZ54AXUAPH001C120SAXXXX	1	120	32	33.9	41.0
MVNZ54AXUAPH001C150SAXXXX	1	150	33.3	35.2	42.0
MVNZ54AXUAPH001C185SAXXXX	1	185	35	36.9	44.0
MVNZ54AXUAPH001C240SAXXXX	1	240	37.3	39.2	46.0
MVNZ54AXUAPH001C300SAXXXX	1	300	39.5	41.4	49.0
MVNZ54AXUAPH001C400SAXXXX	1	400	42.2	44.1	52.0
MVNZ54AXUAPH001C500SAXXXX	1	500	45.6	47.5	55.0
MVNZ54AXUAPH001C630SAXXXX	1	630	48.8	50.7	59.0
MVNZ54AXUAPH001C800SAXXXX	1	800	52.7	54.6	63.0
MVNZ54AXUAPH001C01KSAXXXX	1	1000	57.2	59.1	68.0

- Above mentioned parameters are based on 3kA/sec earth fault current capacity of copper screen

POLYCAB SINGLE CORE ANTI-TERMITE MV AS/NZS 1429.1 19/33 (36) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen and Unarmoured

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 Ducts		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	50	0.641	0.822	0.14	0.500	0.157	157	152	146	142	189	184
1	70	0.443	0.568	0.15	0.464	0.146	192	186	178	176	236	230
1	95	0.32	0.411	0.17	0.443	0.139	229	221	213	210	287	280
1	120	0.253	0.325	0.18	0.422	0.132	260	252	242	240	332	324
1	150	0.206	0.265	0.19	0.409	0.128	288	281	271	267	376	368
1	185	0.164	0.211	0.21	0.394	0.124	324	317	307	303	432	424
1	240	0.125	0.161	0.23	0.377	0.118	373	367	356	351	511	502
1	300	0.1	0.129	0.25	0.363	0.114	419	414	402	397	586	577
1	400	0.0778	0.101	0.27	0.350	0.110	466	470	457	451	676	673
1	500	0.0605	0.080	0.3	0.337	0.106	525	530	510	505	760	750
1	630	0.0469	0.063	0.33	0.326	0.102	580	585	560	555	860	850
1	800	0.0367	0.051	0.36	0.315	0.099	650	655	620	615	960	950
1	1000	0.0291	0.042	0.4	0.306	0.096	715	705	670	665	1060	1050

*: 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

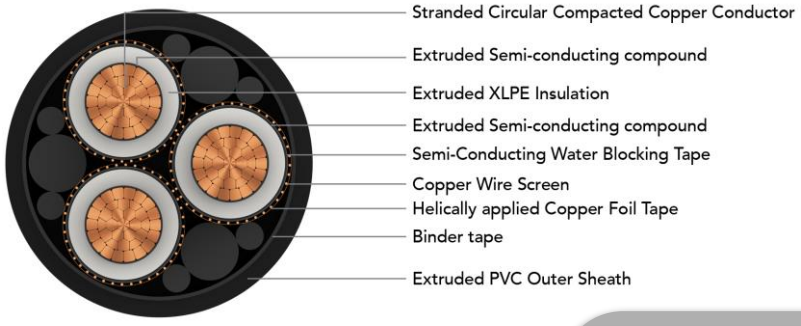
POLYCAB SINGLE CORE ANTI-TERMITE MV AS/NZS 1429.1 19/33 (36) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen and Unarmoured

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
1	50	2.5	0.84	1.98	4.1	4.7
1	70	3.5	0.9	1.73	3.9	6.6
1	95	4.75	1.01	1.57	3.7	9.0
1	120	6	1.07	1.49	3.6	11.3
1	150	7.5	1.13	1.43	3.5	14.2
1	185	9.25	1.25	1.37	3.4	17.4
1	240	12	1.37	1.32	3.3	22.6
1	300	15	1.49	1.29	3.2	28.3
1	400	20	1.61	1.26	3.1	37.6
1	500	25	1.79	1.24	3.0	47.2
1	630	31.5	1.97	1.22	3.0	59.6
1	800	40	2.15	1.21	2.9	75.6
1	1000	50	2.39	1.20	2.8	94.5

POLYCAB THREE CORE MV AS/NZS 1429.1 1.9/3.3 (3.6) KV

MV Cable with Copper Conductor, XLPE Insulation, Copper Screen and Unarmoured



Salient Features

- Long life
- UV resistant
- Resistant to chemical exposure
- Resistant to water (AD7/AD8 with HDPE)
- Resistant to weather exposure
- Termite resistant (Optional)

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.

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

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)

(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)

Bending Radius:

Fixed Installation: 12D (PVC) / 15D (HDPE)/20D (Nylon)
During Installation: 18D (PVC) / 25D (HDPE)/30D (Nylon)

D is overall diameter of cable

Standard and References:

AS/NZS 1429.1
AS/NZS 1125
AS/NZS 3808

High Voltage Test

6.5 kV AC

Compliance

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

POLYCAB THREE CORE MV AS/NZS 1429.1 1.9/3.3 (3.6) KV

MV Cable with Copper Conductor, XLPE Insulation, Copper Screen and Unarmoured

DIMENSIONSAL CHARACTERISTICS:

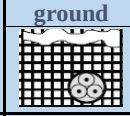
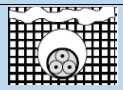
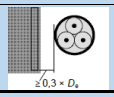
Product Code	No. of Cores	Core Cross sectional Area	Nominal Diameter		
			Under metallic screen	Over metallic screen	Overall
	No.	mm^2	mm	mm	mm
MVNZ10CXUAPH003C016SAXXXX	3	16	11.9	13.4	33.0
MVNZ10CXUAPH003C025SAXXXX	3	25	13.1	14.6	35.0
MVNZ10CXUAPH003C035SAXXXX	3	35	14.1	15.6	38.0
MVNZ10CXUAPH003C050SAXXXX	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

POLYCAB THREE CORE MV AS/NZS 1429.1 1.9/3.3 (3.6) KV

MV Cable with Copper Conductor, XLPE Insulation, Copper Screen and Unarmoured

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
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

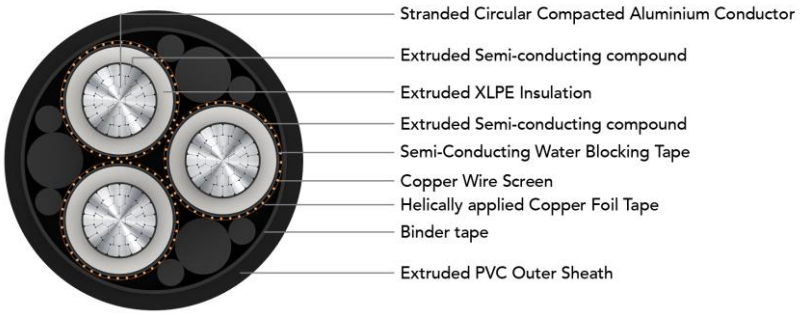
POLYCAB THREE CORE MV AS/NZS 1429.1 1.9/3.3 (3.6) KV

MV Cable with Copper Conductor, XLPE Insulation, Copper Screen and Unarmoured

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

POLYCAB THREE CORE MV AS/NZS 1429.1 1.9/3.3 (3.6) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen and Unarmoured



Salient Features

- Long life
- UV resistant
- Resistant to chemical exposure
- Resistant to water (AD7/AD8 with HDPE)
- Resistant to weather exposure

Application

POLYCAB 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.

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

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)

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

Bending Radius:

Fixed Installation: 12D (PVC) / 15D (HDPE)
During Installation: 18D (PVC) / 25D (HDPE)
D is overall diameter of cable

Standard and References:

AS/NZS 1429.1
AS/NZS 1125
AS/NZS 3808

High Voltage Test

6.5 kV AC

Compliance

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

OUR ACRREDITATION

ISO 9001 ISO 14001 ISO 45001

NABL ABS IRS

POLYCAB THREE CORE MV AS/NZS 1429.1 1.9/3.3 (3.6) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen and Unarmoured

DIMENSIONSAL CHARACTERISTICS:

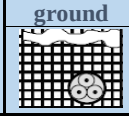
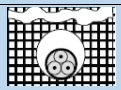
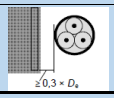
Product Code	No. of Cores	Core Cross sectional Area	Nominal Diameter		
			Under metallic screen	Over metallic screen	Overall
	No.	mm^2	mm	mm	mm
MVNZ10AXUAPH003C016SAXXXX	3	16	11.8	13.3	33.0
MVNZ10AXUAPH003C025SAXXXX	3	25	13.1	14.6	35.0
MVNZ10AXUAPH003C035SAXXXX	3	35	14.1	15.6	38.0
MVNZ10AXUAPH003C050SAXXXX	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

POLYCAB THREE CORE MV AS/NZS 1429.1 1.9/3.3 (3.6) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen and Unarmoured

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.	mm²	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
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

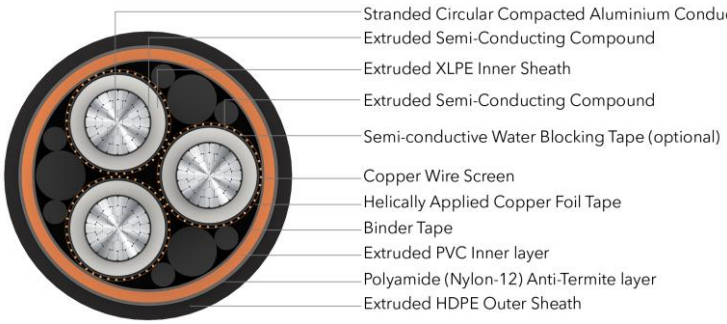
POLYCAB THREE CORE MV AS/NZS 1429.1 1.9/3.3 (3.6) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen and Unarmoured

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

POLYCAB THREE CORE ANTI-TERMITE MV AS/NZS 1429.1 1.9/3.3 (3.6)

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen and Unarmoured



Salient Features

- Long life
- UV resistant
- Resistant to chemical exposure
- Resistant to weather exposure
- Resistant to water (AD7/AD8)
- Termite resistant

Application

POLYCAB 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.

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

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

Composite sheath

- *Inner layer : Extruded Polyvinyl Chloride, Colour: Orange*
- *Termite Protection: Polyamide (Nylon -12)*
- *Outer layer: HDPE (Black)*

Bending Radius:

Fixed Installation: 20D
During Installation: 30D

D is diameter over nylon

Standard and References:

AS/NZS 1429.1
AS/NZS 1125
AS/NZS 3808

High Voltage Test

6.5 kV AC

Compliance

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

POLYCAB THREE CORE ANTI-TERMITE MV AS/NZS 1429.1 1.9/3.3 (3.6)

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen and Unarmoured

DIMENSIONSAL CHARACTERISTICS:

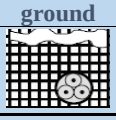
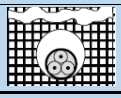
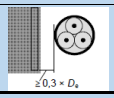
Product Code	No. of Cores	Core Cross sectional Area	Nominal Diameter		
			Under metallic screen	Over metallic screen	Overall
	No.	mm^2	mm	mm	mm
MVNZ10AXUAPH003C016SAXXXX	3	16	11.8	13.3	33.0
MVNZ10AXUAPH003C025SAXXXX	3	25	13.1	14.6	36.0
MVNZ10AXUAPH003C035SAXXXX	3	35	14.1	15.6	38.0
MVNZ10AXUAPH003C050SAXXXX	3	50	15.2	16.7	41.0
MVNZ10AXUAPH003C070SAXXXX	3	70	16.8	18.3	44.0
MVNZ10AXUAPH003C095SAXXXX	3	95	18.4	19.9	48.0
MVNZ10AXUAPH003C120SAXXXX	3	120	20	21.5	52.0
MVNZ10AXUAPH003C150SAXXXX	3	150	21.3	22.8	55.0
MVNZ10AXUAPH003C185SAXXXX	3	185	23	24.5	59.0
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	84.0

- Above mentioned parameters are based on 3kA/sec earth fault current capacity of copper screen

POLYCAB THREE CORE ANTI-TERMITE MV AS/NZS 1429.1 1.9/3.3 (3.6)

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen and Unarmoured

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.	mm²	Ω/km	Ω/km	µF/km	mH/km	Ω/km	Amps		
3	16	1.91	2.449	0.26	0.605	0.190	78	67	84
3	25	1.2	1.539	0.3	0.571	0.180	100	87	110
3	35	0.868	1.113	0.34	0.553	0.174	119	103	132
3	50	0.641	0.822	0.38	0.536	0.168	140	122	158
3	70	0.443	0.568	0.43	0.507	0.159	171	150	196
3	95	0.32	0.411	0.49	0.493	0.155	203	179	236
3	120	0.253	0.325	0.55	0.478	0.150	232	205	273
3	150	0.206	0.265	0.59	0.470	0.148	260	231	309
3	185	0.164	0.211	0.65	0.461	0.145	294	262	355
3	240	0.125	0.161	0.73	0.451	0.142	340	305	415
3	300	0.1	0.129	0.81	0.442	0.139	384	346	475
3	400	0.0778	0.101	0.9	0.434	0.136	438	398	552
3	500	0.0605	0.079	0.93	0.428	0.135	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

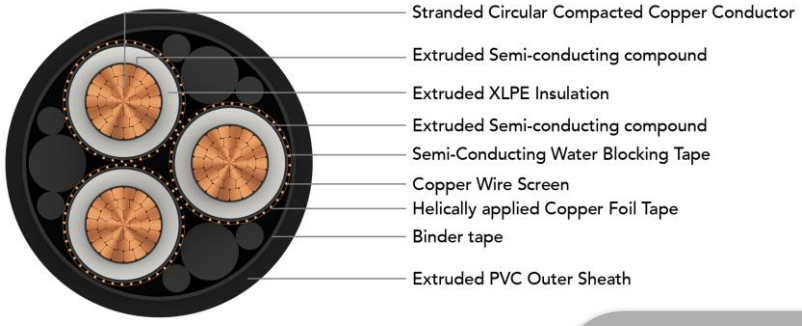
POLYCAB THREE CORE ANTI-TERMITE MV AS/NZS 1429.1 1.9/3.3 (3.6)

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen and Unarmoured

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

POLYCAB THREE CORE MV AS/NZS 1429.1 3.8/6.6 (7.2) KV

MV Cable with Copper Conductor, XLPE Insulation, Copper Screen and Unarmoured



Salient Features

- Long life
- UV resistant
- Resistant to chemical exposure
- Resistant to water (AD7/AD8 with HDPE)
- Resistant to weather exposure
- Termite resistant (Optional)

Application

POLYCAB MV 3.8/6.6 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.

Voltage Rating

Nominal Voltage: 3.8/6.6 (7.2) 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

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)

(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)

Bending Radius:

Fixed Installation: 12D (PVC) / 15D (HDPE)/20D (Nylon)
During Installation: 18D (PVC) / 25D (HDPE)/30D (Nylon)

D is overall diameter of cable

Standard and References:

AS/NZS 1429.1
AS/NZS 1125
AS/NZS 3808

High Voltage Test (kV AC)	Partial discharge test (kV AC)		Impulse test Voltage (kV peak)
	200% to rated voltage	150% to rated voltage	
12.5	7.6	5.7	60

Compliance

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

POLYCAB THREE CORE MV AS/NZS 1429.1 3.8/6.6 (7.2) KV

MV Cable with Copper Conductor, XLPE Insulation, Copper Screen and Unarmoured

DIMENSIONSAL CHARACTERISTICS:

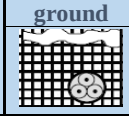
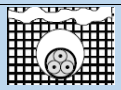
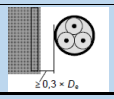
Product Code	No. of Cores	Core Cross sectional Area	Nominal Diameter		
			Under metallic screen	Over metallic screen	Overall
	No.	mm^2	mm	mm	mm
MVNZ15CXSWPH003C016SAXXXX	3	16	12.9	14.4	35.0
MVNZ15CXSWPH003C025SAXXXX	3	25	14.1	15.6	38.0
MVNZ15CXSWPH003C035SAXXXX	3	35	15.1	16.6	40.0
MVNZ15CXSWPH003C050SAXXXX	3	50	16.2	17.7	43.0
MVNZ15CXSWPH003C070SAXXXX	3	70	17.9	19.4	46.0
MVNZ15CXSWPH003C095SAXXXX	3	95	19.4	20.9	50.0
MVNZ15CXSWPH003C120SAXXXX	3	120	21	22.5	54.0
MVNZ15CXSWPH003C150SAXXXX	3	150	22.4	23.9	57.0
MVNZ15CXSWPH003C185SAXXXX	3	185	24.1	25.6	61.0
MVNZ15CXSWPH003C240SAXXXX	3	240	26.6	28.1	66.0
MVNZ15CXSWPH003C300SAXXXX	3	300	29	30.5	72.0
MVNZ15CXSWPH003C400SAXXXX	3	400	32.2	33.7	79.0
MVNZ15CXSWPH003C500SAXXXX	3	500	36	37.5	88.0

- Above mentioned parameters are based on 3kA/sec earth fault current capacity of copper screen

POLYCAB THREE CORE MV AS/NZS 1429.1 3.8/6.6 (7.2) KV

MV Cable with Copper Conductor, XLPE Insulation, Copper Screen and Unarmoured

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	0.22	0.613	0.193	101	87	109
3	25	0.727	0.927	0.25	0.583	0.183	129	112	142
3	35	0.524	0.668	0.28	0.563	0.177	153	133	170
3	50	0.387	0.494	0.31	0.546	0.171	181	158	204
3	70	0.268	0.342	0.36	0.515	0.162	221	193	253
3	95	0.193	0.247	0.4	0.501	0.157	262	231	304
3	120	0.153	0.196	0.45	0.485	0.152	298	264	351
3	150	0.124	0.159	0.49	0.477	0.150	334	297	398
3	185	0.0991	0.127	0.54	0.467	0.147	377	336	455
3	240	0.0754	0.097	0.58	0.458	0.144	434	390	531
3	300	0.0601	0.078	0.59	0.452	0.142	489	441	606
3	400	0.047	0.062	0.62	0.445	0.140	553	501	696
3	500	0.0366	0.049	0.66	0.438	0.138	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

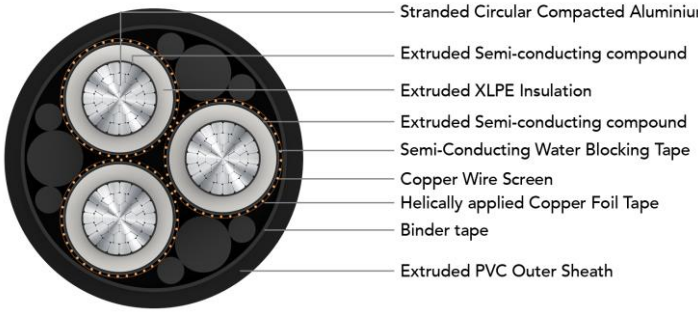
POLYCAB THREE CORE MV AS/NZS 1429.1 3.8/6.6 (7.2) KV

MV Cable with Copper Conductor, XLPE Insulation, Copper Screen and Unarmoured

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	0.26	2.63	2.1	2.3
3	25	1.75	0.3	2.09	2.0	3.6
3	35	2.45	0.33	1.83	2.0	5.0
3	50	3.5	0.37	1.65	1.9	7.2
3	70	4.9	0.43	1.50	1.9	10.0
3	95	6.65	0.48	1.41	1.8	13.6
3	120	8.4	0.54	1.36	1.8	17.1
3	150	10.5	0.58	1.32	1.8	21.4
3	185	12.95	0.64	1.29	1.7	26.4
3	240	16.8	0.69	1.26	1.7	34.3
3	300	21	0.7	1.24	1.5	42.8
3	400	28	0.74	1.22	1.4	56.9
3	500	35	0.79	1.21	1.3	71.5

POLYCAB THREE CORE MV AS/NZS 1429.1 3.8/6.6 (7.2) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen and Unarmoured



Salient Features

- Long life
- UV resistant
- Resistant to chemical exposure
- Resistant to water (AD7/AD8 with HDPE)
- Resistant to weather exposure

Application

POLYCAB MV 3.8/6.6 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.

Voltage Rating

Nominal Voltage: 3.8/6.6 (7.2)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

Construction

- Conductor: Stranded Compacted Circular aluminium 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
- binder tape / sheath over assembled cores
- Metallic Sheath: Lead Alloy (optional)
- Outer Sheath: Extruded Polyvinyl Chloride, Colour: Black
- Insect attack Protection: Polyamide Nylon (optional)

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

Bending Radius:

Fixed Installation: 12D (PVC) / 15D (HDPE)
During Installation: 18D (PVC) / 25D (HDPE)
D is overall diameter of cable

Standard and References:

AS/NZS 1429.1
AS/NZS 1125
AS/NZS 3808

High Voltage Test (kV AC)	Partial discharge test (kV AC)		Impulse test Voltage (kV peak)
	200% to rated voltage	150% to rated voltage	
12.5	7.6	5.7	60

Compliance

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

OUR ACRREDITATION

ISO 9001 ISO 14001 ISO 45001

NABL ABS IRS

POLYCAB THREE CORE MV AS/NZS 1429.1 3.8/6.6 (7.2) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen and Unarmoured

DIMENSIONSAL CHARACTERISTICS:

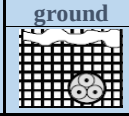
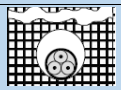
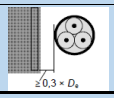
Product Code	No. of Cores	Core Cross sectional Area	Nominal Diameter		
			Under metallic screen	Over metallic screen	Overall
	No.	mm^2	mm	mm	mm
MVNZ15AXSWPH003C016SAXXXX	3	16	12.8	14.3	35.0
MVNZ15AXSWPH003C025SAXXXX	3	25	14.1	15.6	38.0
MVNZ15AXSWPH003C035SAXXXX	3	35	15.1	16.6	40.0
MVNZ15AXSWPH003C050SAXXXX	3	50	16.2	17.7	43.0
MVNZ15AXSWPH003C070SAXXXX	3	70	17.8	19.3	46.0
MVNZ15AXSWPH003C095SAXXXX	3	95	19.4	20.9	50.0
MVNZ15AXSWPH003C120SAXXXX	3	120	21	22.5	54.0
MVNZ15AXSWPH003C150SAXXXX	3	150	22.3	23.8	57.0
MVNZ15AXSWPH003C185SAXXXX	3	185	24	25.5	61.0
MVNZ15AXSWPH003C240SAXXXX	3	240	26.5	28.0	66.0
MVNZ15AXSWPH003C300SAXXXX	3	300	29.1	30.6	72.0
MVNZ15AXSWPH003C400SAXXXX	3	400	32.2	33.7	79.0
MVNZ15AXSWPH003C500SAXXXX	3	500	36	37.5	88.0

- Above mentioned parameters are based on 3kA/sec earth fault current capacity of copper screen

POLYCAB THREE CORE MV AS/NZS 1429.1 3.8/6.6 (7.2) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen and Unarmoured

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.	mm²	Ω/km	Ω/km	µF/km	mH/km	Ω/km	Amps		
3	16	1.91	2.449	0.22	0.616	0.194	78	67	84
3	25	1.2	1.539	0.25	0.583	0.183	100	87	110
3	35	0.868	1.113	0.28	0.563	0.177	119	103	132
3	50	0.641	0.822	0.31	0.546	0.171	140	122	158
3	70	0.443	0.568	0.36	0.517	0.162	171	150	196
3	95	0.32	0.411	0.4	0.501	0.157	203	179	236
3	120	0.253	0.325	0.45	0.485	0.152	232	205	273
3	150	0.206	0.265	0.49	0.477	0.150	260	231	309
3	185	0.164	0.211	0.53	0.468	0.147	294	262	355
3	240	0.125	0.161	0.58	0.458	0.144	340	305	415
3	300	0.1	0.129	0.6	0.451	0.142	384	346	475
3	400	0.0778	0.101	0.62	0.445	0.140	438	398	552
3	500	0.0605	0.079	0.66	0.438	0.138	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

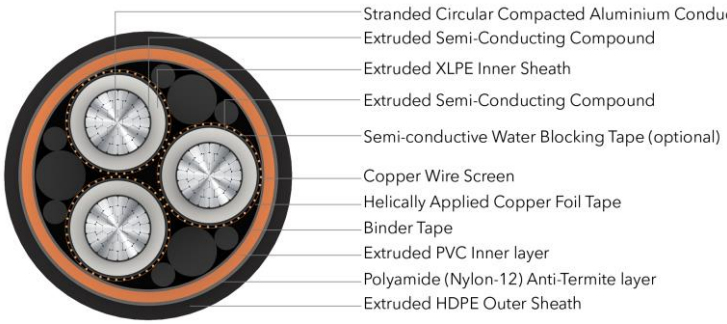
POLYCAB THREE CORE MV AS/NZS 1429.1 3.8/6.6 (7.2) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen and Unarmoured

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	0.26	3.61	2.1	1.4
3	25	1.25	0.3	2.70	2.0	2.3
3	35	1.75	0.33	2.27	2.0	3.1
3	50	2.5	0.37	1.98	1.9	4.5
3	70	3.5	0.43	1.73	1.9	6.2
3	95	4.75	0.48	1.57	1.8	8.5
3	120	6	0.54	1.48	1.8	10.7
3	150	7.5	0.58	1.42	1.8	13.4
3	185	9.25	0.63	1.37	1.7	16.5
3	240	12	0.69	1.32	1.7	21.4
3	300	15	0.72	1.29	1.5	26.8
3	400	20	0.74	1.26	1.4	35.5
3	500	25	0.79	1.24	1.3	44.7

POLYCAB THREE CORE ANTI-TERMITE MV AS/NZS 1429.1 3.8/6.6 (7.2) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen and Unarmoured



Salient Features

- Long life
- UV resistant
- Resistant to chemical exposure
- Resistant to weather exposure
- Resistant to water (AD7/AD8)
- Termite resistant

Application

POLYCAB MV 3.8/6.6 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.

Voltage Rating

Nominal Voltage: 3.8/6.6 (7.2) 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

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

Composite sheath

- *Inner layer : Extruded Polyvinyl Chloride, Colour: Orange*
- *Termite Protection: Polyamide (Nylon -12)*
- *Outer layer: HDPE (Black)*

Bending Radius:

Fixed Installation: 20D
During Installation: 30D

D is diameter over nylon

Standard and References:

AS/NZS 1429.1
AS/NZS 1125
AS/NZS 3808

High Voltage Test (kV AC)	Partial discharge test (kV AC)		Impulse test Voltage (kV peak)
	200% to rated voltage	150% to rated voltage	
12.5	7.6	5.7	60

Compliance

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

OUR ACRREDITATION

ISO 9001 ISO 14001 ISO 45001

NABL ABS IRS

POLYCAB THREE CORE ANTI-TERMITE MV AS/NZS 1429.1 3.8/6.6 (7.2) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen and Unarmoured

DIMENSIONSAL CHARACTERISTICS:

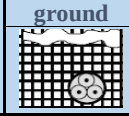
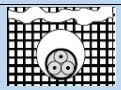
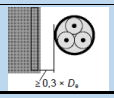
Product Code	No. of Cores	Core Cross sectional Area	Nominal Diameter		
			Under metallic screen	Over metallic screen	Overall
	No.	mm^2	mm	mm	mm
MVNZ15AXUAPH003C016SAXXXX	3	16	12.8	14.3	35.0
MVNZ15AXUAPH003C025SAXXXX	3	25	14.1	15.6	38.0
MVNZ15AXUAPH003C035SAXXXX	3	35	15.1	16.6	40.0
MVNZ15AXUAPH003C050SAXXXX	3	50	16.2	17.7	43.0
MVNZ15AXUAPH003C070SAXXXX	3	70	17.8	19.3	47.0
MVNZ15AXUAPH003C095SAXXXX	3	95	19.4	20.9	50.0
MVNZ15AXUAPH003C120SAXXXX	3	120	21	22.5	54.0
MVNZ15AXUAPH003C150SAXXXX	3	150	22.3	23.8	57.0
MVNZ15AXUAPH003C185SAXXXX	3	185	24	25.5	61.0
MVNZ15AXUAPH003C240SAXXXX	3	240	26.5	28.0	67.0
MVNZ15AXUAPH003C300SAXXXX	3	300	29.1	30.6	72.0
MVNZ15AXUAPH003C400SAXXXX	3	400	32.2	33.7	80.0
MVNZ15AXUAPH003C500SAXXXX	3	500	36	37.5	89.0

- Above mentioned parameters are based on 3kA/sec earth fault current capacity of copper screen

POLYCAB THREE CORE ANTI-TERMITE MV AS/NZS 1429.1 3.8/6.6 (7.2) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen and Unarmoured

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.	mm²	Ω/km	Ω/km	µF/km	mH/km	Ω/km	Amps		
3	16	1.91	2.449	0.22	0.618	0.194	78	67	84
3	25	1.2	1.539	0.25	0.586	0.184	100	87	110
3	35	0.868	1.113	0.28	0.565	0.177	119	103	132
3	50	0.641	0.822	0.31	0.548	0.172	140	122	158
3	70	0.443	0.568	0.36	0.518	0.163	171	150	196
3	95	0.32	0.411	0.4	0.503	0.158	203	179	236
3	120	0.253	0.325	0.45	0.487	0.153	232	205	273
3	150	0.206	0.265	0.49	0.479	0.150	260	231	309
3	185	0.164	0.211	0.53	0.470	0.148	294	262	355
3	240	0.125	0.161	0.58	0.459	0.144	340	305	415
3	300	0.1	0.129	0.6	0.452	0.142	384	346	475
3	400	0.0778	0.101	0.62	0.447	0.140	438	398	552
3	500	0.0605	0.079	0.66	0.439	0.138	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

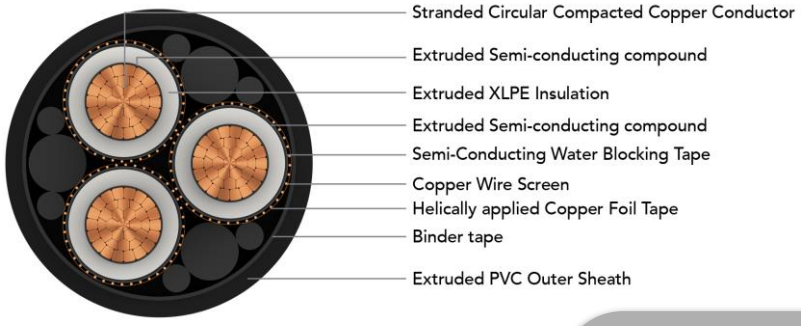
POLYCAB THREE CORE ANTI-TERMITE MV AS/NZS 1429.1 3.8/6.6 (7.2) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen and Unarmoured

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	0.26	3.61	2.1	1.4
3	25	1.25	0.3	2.70	2.0	2.3
3	35	1.75	0.33	2.27	2.0	3.1
3	50	2.5	0.37	1.98	1.9	4.5
3	70	3.5	0.43	1.73	1.9	6.2
3	95	4.75	0.48	1.57	1.8	8.5
3	120	6	0.54	1.48	1.8	10.7
3	150	7.5	0.58	1.42	1.8	13.4
3	185	9.25	0.63	1.37	1.7	16.5
3	240	12	0.69	1.32	1.7	21.4
3	300	15	0.72	1.29	1.5	26.8
3	400	20	0.74	1.26	1.4	35.5
3	500	25	0.79	1.24	1.3	44.7

POLYCAB THREE CORE MV AS/NZS 1429.1 6.35/11 (12) KV

MV Cable with Copper Conductor, XLPE Insulation, Copper Screen and Unarmoured



Salient Features

- Long life
- UV resistant
- Resistant to chemical exposure
- Resistant to water (AD7/AD8 with HDPE)
- Resistant to weather exposure
- Termite resistant (Optional)

Application

POLYCAB MV 6.35/11 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.

Voltage Rating

Nominal Voltage: : 6.35/11 (12) 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

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)

(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)

Bending Radius:

Fixed Installation: 12D (PVC) / 15D (HDPE)/20D (Nylon)
During Installation: 18D (PVC) / 25D (HDPE)/30D (Nylon)

D is overall diameter of cable

Standard and References:

AS/NZS 1429.1
AS/NZS 1125
AS/NZS 3808

High Voltage Test (kV AC)	Partial discharge test (kV AC)		Impulse test Voltage (kV peak)
	200% to rated voltage	150% to rated voltage	
21	13	10	95

Compliance

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

OUR ACRREDITATION

ISO 9001 ISO 14001 ISO 45001

NABL ABS IRS

POLYCAB THREE CORE MV AS/NZS 1429.1 6.35/11 (12) KV

MV Cable with Copper Conductor, XLPE Insulation, Copper Screen and Unarmoured

DIMENSIONSAL CHARACTERISTICS:

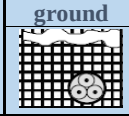
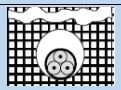
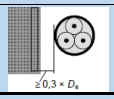
Product Code	No. of Cores	Core Cross sectional Area	Nominal Diameter		
			Under metallic screen	Over metallic screen	Overall
	No.	mm^2	mm	mm	mm
MVNZ17CXUAPH003C016SAXXXX	3	16	14.7	16.2	39.0
MVNZ17CXUAPH003C025SAXXXX	3	25	15.9	17.4	42.0
MVNZ17CXUAPH003C035SAXXXX	3	35	16.9	18.4	44.0
MVNZ17CXUAPH003C050SAXXXX	3	50	18	19.5	47.0
MVNZ17CXUAPH003C070SAXXXX	3	70	19.7	21.2	51.0
MVNZ17CXUAPH003C095SAXXXX	3	95	21.2	22.7	54.0
MVNZ17CXUAPH003C120SAXXXX	3	120	22.8	24.3	58.0
MVNZ17CXUAPH003C150SAXXXX	3	150	24.2	25.7	61.0
MVNZ17CXUAPH003C185SAXXXX	3	185	25.9	27.4	65.0
MVNZ17CXUAPH003C240SAXXXX	3	240	28.2	29.7	70.0
MVNZ17CXUAPH003C300SAXXXX	3	300	30.2	31.7	75.0
MVNZ17CXUAPH003C400SAXXXX	3	400	33	34.5	81.0
MVNZ17CXUAPH003C500SAXXXX	3	500	36.4	37.9	89.0

- Above mentioned parameters are based on 3kA/sec earth fault current capacity of copper screen

POLYCAB THREE CORE MV AS/NZS 1429.1 6.35/11 (12) KV

MV Cable with Copper Conductor, XLPE Insulation, Copper Screen and Unarmoured

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	0.18	0.637	0.200	101	87	109
3	25	0.727	0.927	0.2	0.605	0.190	129	112	142
3	35	0.524	0.668	0.22	0.583	0.183	153	133	170
3	50	0.387	0.494	0.25	0.565	0.177	181	158	204
3	70	0.268	0.342	0.28	0.533	0.168	221	193	253
3	95	0.193	0.246	0.31	0.518	0.163	262	231	304
3	120	0.153	0.196	0.35	0.501	0.157	298	264	351
3	150	0.124	0.159	0.38	0.491	0.154	334	297	398
3	185	0.0991	0.127	0.41	0.481	0.151	377	336	455
3	240	0.0754	0.097	0.46	0.469	0.147	434	390	531
3	300	0.0601	0.078	0.5	0.459	0.144	489	441	606
3	400	0.047	0.062	0.56	0.450	0.141	553	501	696
3	500	0.0366	0.049	0.63	0.440	0.138	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

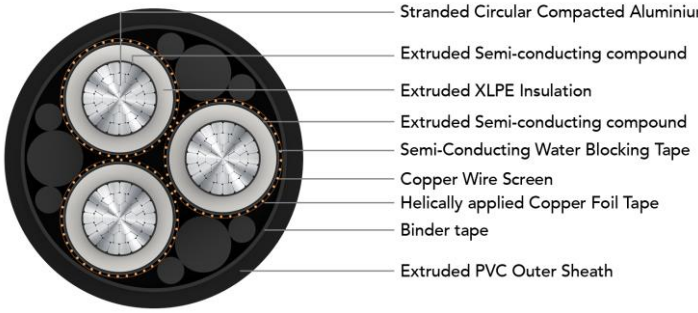
POLYCAB THREE CORE MV AS/NZS 1429.1 6.35/11 (12) KV

MV Cable with Copper Conductor, XLPE Insulation, Copper Screen and Unarmoured

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	0.36	2.63	2.8	2.3
3	25	1.75	0.4	2.09	2.7	3.6
3	35	2.45	0.44	1.83	2.6	5.0
3	50	3.5	0.5	1.65	2.5	7.2
3	70	4.9	0.56	1.50	2.4	10.0
3	95	6.65	0.62	1.41	2.3	13.6
3	120	8.4	0.7	1.36	2.3	17.1
3	150	10.5	0.76	1.32	2.3	21.4
3	185	12.95	0.82	1.29	2.2	26.4
3	240	16.8	0.92	1.26	2.2	34.3
3	300	21	1	1.24	2.2	42.8
3	400	28	1.12	1.22	2.1	56.9
3	500	35	1.26	1.21	2.1	71.5

POLYCAB THREE CORE MV AS/NZS 1429.1 6.35/11 (12) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen and Unarmoured



Salient Features

- Long life
- UV resistant
- Resistant to chemical exposure
- Resistant to water (AD7/AD8 with HDPE)
- Resistant to weather exposure

Application

POLYCAB MV 6.35/11 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.

Voltage Rating

Nominal Voltage: 6.35/11 (12) 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

Construction

- Conductor: Stranded Compacted Circular aluminium 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
- binder tape / sheath over assembled cores
- Metallic Sheath: Lead Alloy (optional)
- Outer Sheath: Extruded Polyvinyl Chloride, Colour: Black
- Insect attack Protection: Polyamide Nylon (optional)

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

Bending Radius:

Fixed Installation: 12D (PVC) / 15D (HDPE)
During Installation: 18D (PVC) / 25D (HDPE)
D is overall diameter of cable

Standard and References:

AS/NZS 1429.1
AS/NZS 1125
AS/NZS 3808

High Voltage Test (kV AC)	Partial discharge test (kV AC)		Impulse test Voltage (kV peak)
	200% to rated voltage	150% to rated voltage	
21	13	10	95

Compliance

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

OUR ACRREDITATION

ISO 9001 ISO 14001 ISO 45001

NABL ABS IRS

POLYCAB THREE CORE MV AS/NZS 1429.1 6.35/11 (12) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen and Unarmoured

DIMENSIONSAL CHARACTERISTICS:

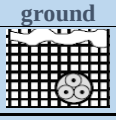
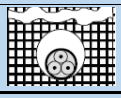
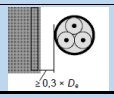
Product Code	No. of Cores	Core Cross sectional Area	Nominal Diameter		
			Under metallic screen	Over metallic screen	Overall
	No.	mm^2	mm	mm	mm
MVNZ17AXUAPH003C016SAXXXX	3	16	14.6	16.1	39.0
MVNZ17AXUAPH003C025SAXXXX	3	25	15.9	17.4	42.0
MVNZ17AXUAPH003C035SAXXXX	3	35	16.9	18.4	44.0
MVNZ17AXUAPH003C050SAXXXX	3	50	18	19.5	47.0
MVNZ17AXUAPH003C070SAXXXX	3	70	19.6	21.1	51.0
MVNZ17AXUAPH003C095SAXXXX	3	95	21.2	22.7	54.0
MVNZ17AXUAPH003C120SAXXXX	3	120	22.8	24.3	58.0
MVNZ17AXUAPH003C150SAXXXX	3	150	24.1	25.6	61.0
MVNZ17AXUAPH003C185SAXXXX	3	185	25.8	27.3	65.0
MVNZ17AXUAPH003C240SAXXXX	3	240	28.1	29.6	70.0
MVNZ17AXUAPH003C300SAXXXX	3	300	30.3	31.8	75.0
MVNZ17AXUAPH003C400SAXXXX	3	400	33	34.5	81.0
MVNZ17AXUAPH003C500SAXXXX	3	500	36.4	37.9	89.0

- Above mentioned parameters are based on 3kA/sec earth fault current capacity of copper screen

POLYCAB THREE CORE MV AS/NZS 1429.1 6.35/11 (12) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen and Unarmoured

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.	mm²	Ω/km	Ω/km	µF/km	mH/km	Ω/km	Amps		
3	16	1.91	2.449	0.17	0.640	0.201	78	67	84
3	25	1.2	1.539	0.2	0.605	0.190	100	87	110
3	35	0.868	1.113	0.22	0.583	0.183	119	103	132
3	50	0.641	0.822	0.25	0.565	0.177	140	122	158
3	70	0.443	0.568	0.28	0.535	0.168	171	150	196
3	95	0.32	0.411	0.31	0.518	0.163	203	179	236
3	120	0.253	0.325	0.35	0.501	0.157	232	205	273
3	150	0.206	0.264	0.37	0.492	0.154	260	231	309
3	185	0.164	0.211	0.41	0.481	0.151	294	262	355
3	240	0.125	0.161	0.46	0.470	0.148	340	305	415
3	300	0.1	0.129	0.5	0.459	0.144	384	346	475
3	400	0.0778	0.101	0.56	0.450	0.141	438	398	552
3	500	0.0605	0.079	0.63	0.440	0.138	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

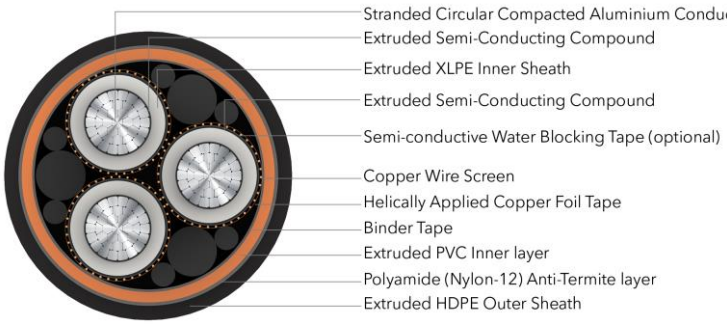
POLYCAB THREE CORE MV AS/NZS 1429.1 6.35/11 (12) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen and Unarmoured

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	0.34	3.61	2.9	1.4
3	25	1.25	0.4	2.70	2.7	2.3
3	35	1.75	0.44	2.27	2.6	3.1
3	50	2.5	0.5	1.98	2.5	4.5
3	70	3.5	0.56	1.73	2.4	6.2
3	95	4.75	0.62	1.57	2.3	8.5
3	120	6	0.7	1.48	2.3	10.7
3	150	7.5	0.74	1.42	2.3	13.4
3	185	9.25	0.82	1.37	2.2	16.5
3	240	12	0.92	1.32	2.2	21.4
3	300	15	1	1.29	2.2	26.8
3	400	20	1.12	1.26	2.1	35.5
3	500	25	1.26	1.24	2.1	44.7

POLYCAB THREE CORE ANTI-TERMITE MV AS/NZS 1429.1 6.35/11 (12) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen and Unarmoured



Salient Features

- Long life
- UV resistant
- Resistant to chemical exposure
- Resistant to weather exposure
- Resistant to water (AD7/AD8)
- Termite resistant

Application

POLYCAB MV 6.35/11 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.

Voltage Rating

Nominal Voltage: 6.35/11 (12) 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

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

Composite sheath

- *Inner layer : Extruded Polyvinyl Chloride, Colour: Orange*
- *Termite Protection: Polyamide (Nylon -12)*
- *Outer layer: HDPE (Black)*

Bending Radius:

Fixed Installation: 20D
During Installation: 30D

D is diameter over nylon

Standard and References:

AS/NZS 1429.1
AS/NZS 1125
AS/NZS 3808

High Voltage Test (kV AC)	Partial discharge test (kV AC)		Impulse test Voltage (kV peak)
	200% to rated voltage	150% to rated voltage	
21	13	10	95

Compliance

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

OUR ACRREDITATION

ISO 9001 ISO 14001 ISO 45001

NABL ABS IRS

POLYCAB THREE CORE ANTI-TERMITE MV AS/NZS 1429.1 6.35/11 (12) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen and Unarmoured

DIMENSIONSAL CHARACTERISTICS:

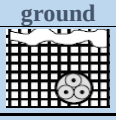
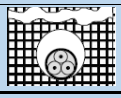
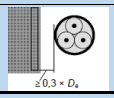
Product Code	No. of Cores	Core Cross sectional Area	Nominal Diameter		
			Under metallic screen	Over metallic screen	Overall
	No.	mm^2	mm	mm	mm
MVNZ15AXUAPH003C016SAXXXX	3	16	14.6	16.1	39.0
MVNZ15AXUAPH003C025SAXXXX	3	25	15.9	17.4	43.0
MVNZ15AXUAPH003C035SAXXXX	3	35	16.9	18.4	45.0
MVNZ15AXUAPH003C050SAXXXX	3	50	18	19.5	47.0
MVNZ15AXUAPH003C070SAXXXX	3	70	19.6	21.1	51.0
MVNZ15AXUAPH003C095SAXXXX	3	95	21.2	22.7	55.0
MVNZ15AXUAPH003C120SAXXXX	3	120	22.8	24.3	58.0
MVNZ15AXUAPH003C150SAXXXX	3	150	24.1	25.6	61.0
MVNZ15AXUAPH003C185SAXXXX	3	185	25.8	27.3	65.0
MVNZ15AXUAPH003C240SAXXXX	3	240	28.1	29.6	70.0
MVNZ15AXUAPH003C300SAXXXX	3	300	30.3	31.8	75.0
MVNZ15AXUAPH003C400SAXXXX	3	400	33	34.5	82.0
MVNZ15AXUAPH003C500SAXXXX	3	500	36.4	37.9	89.0

- Above mentioned parameters are based on 3kA/sec earth fault current capacity of copper screen

POLYCAB THREE CORE ANTI-TERMITE MV AS/NZS 1429.1 6.35/11 (12) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen and Unarmoured

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.	mm²	Ω/km	Ω/km	µF/km	mH/km	Ω/km	Amps		
3	16	1.91	2.449	0.17	0.642	0.202	78	67	84
3	25	1.2	1.539	0.2	0.607	0.191	100	87	110
3	35	0.868	1.113	0.22	0.586	0.184	119	103	132
3	50	0.641	0.822	0.25	0.566	0.178	140	122	158
3	70	0.443	0.568	0.28	0.536	0.168	171	150	196
3	95	0.32	0.411	0.31	0.520	0.163	203	179	236
3	120	0.253	0.325	0.35	0.502	0.158	232	205	273
3	150	0.206	0.264	0.37	0.493	0.155	260	231	309
3	185	0.164	0.211	0.41	0.482	0.151	294	262	355
3	240	0.125	0.161	0.46	0.471	0.148	340	305	415
3	300	0.1	0.129	0.5	0.460	0.145	384	346	475
3	400	0.0778	0.101	0.56	0.451	0.142	438	398	552
3	500	0.0605	0.079	0.63	0.441	0.139	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

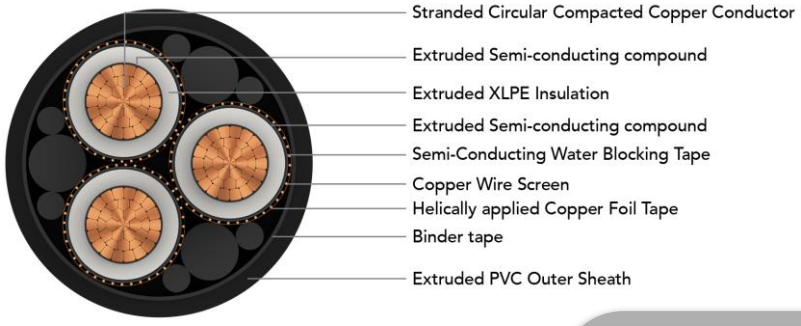
POLYCAB THREE CORE ANTI-TERMITE MV AS/NZS 1429.1 6.35/11 (12) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen and Unarmoured

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	0.34	3.61	2.9	1.4
3	25	1.25	0.4	2.70	2.7	2.3
3	35	1.75	0.44	2.27	2.6	3.1
3	50	2.5	0.5	1.98	2.5	4.5
3	70	3.5	0.56	1.73	2.4	6.2
3	95	4.75	0.62	1.57	2.3	8.5
3	120	6	0.7	1.48	2.3	10.7
3	150	7.5	0.74	1.42	2.3	13.4
3	185	9.25	0.82	1.37	2.2	16.5
3	240	12	0.92	1.32	2.2	21.4
3	300	15	1	1.29	2.2	26.8
3	400	20	1.12	1.26	2.1	35.5
3	500	25	1.26	1.24	2.1	44.7

POLYCAB THREE CORE MV AS/NZS 1429.1 12.7/22 (24) KV

MV Cable with Copper Conductor, XLPE Insulation, Copper Screen and Unarmoured



Salient Features

- Long life
- UV resistant
- Resistant to chemical exposure
- Resistant to water (AD7/AD8 with HDPE)
- Resistant to weather exposure
- Termite resistant (Optional)

Application

POLYCAB MV 12.7/22 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.

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

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)

(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)

Bending Radius:

Fixed Installation: 12D (PVC) / 15D (HDPE)/20D (Nylon)
During Installation: 18D (PVC) / 25D (HDPE)/30D (Nylon)

D is overall diameter of cable

Standard and References:

AS/NZS 1429.1
AS/NZS 1125
AS/NZS 3808

High Voltage Test (kV AC)	Partial discharge test (kV AC)		Impulse test Voltage (kV peak)
	200% to rated voltage	150% to rated voltage	
45	25	19	150

Compliance

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

OUR ACRREDITATION

ISO 9001 ISO 14001 ISO 45001

NABL ABS IRS

POLYCAB THREE CORE MV AS/NZS 1429.1 12.7/22 (24) KV

MV Cable with Copper Conductor, XLPE Insulation, Copper Screen and Unarmoured

DIMENSIONSAL CHARACTERISTICS:

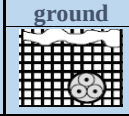
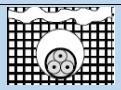
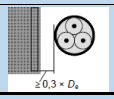
Product Code	No. of Cores	Core Cross sectional Area	Nominal Diameter		
			Under metallic screen	Over metallic screen	Overall
	No.	mm^2	mm	mm	mm
MVNZ12CXUAPH003C035SAXXXX	3	35	21.1	22.6	54.0
MVNZ12CXUAPH003C050SAXXXX	3	50	22.2	23.7	57.0
MVNZ12CXUAPH003C070SAXXXX	3	70	23.9	25.4	60.0
MVNZ12CXUAPH003C095SAXXXX	3	95	25.4	26.9	64.0
MVNZ12CXUAPH003C120SAXXXX	3	120	27	28.5	67.0
MVNZ12CXUAPH003C150SAXXXX	3	150	28.4	29.9	71.0
MVNZ12CXUAPH003C185SAXXXX	3	185	30.1	31.6	75.0
MVNZ12CXUAPH003C240SAXXXX	3	240	32.4	33.9	80.0
MVNZ12CXUAPH003C300SAXXXX	3	300	34.4	35.9	84.0
MVNZ12CXUAPH003C400SAXXXX	3	400	37.2	38.7	91.0
MVNZ12CXUAPH003C500SAXXXX	3	500	40.6	42.1	99.0

- Above mentioned parameters are based on 3kA/sec earth fault current capacity of copper screen

POLYCAB THREE CORE MV AS/NZS 1429.1 12.7/22 (24) KV

MV Cable with Copper Conductor, XLPE Insulation, Copper Screen and Unarmoured

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	35	0.524	0.668	0.16	0.625	0.196	153	133	170
3	50	0.387	0.494	0.17	0.604	0.190	181	158	204
3	70	0.268	0.342	0.2	0.569	0.179	221	193	253
3	95	0.193	0.246	0.22	0.551	0.173	262	231	304
3	120	0.153	0.196	0.24	0.533	0.167	298	264	351
3	150	0.124	0.159	0.26	0.521	0.164	334	297	398
3	185	0.0991	0.127	0.28	0.509	0.160	377	336	455
3	240	0.0754	0.097	0.31	0.496	0.156	434	390	531
3	300	0.0601	0.078	0.33	0.484	0.152	489	441	606
3	400	0.047	0.062	0.37	0.473	0.149	553	501	696
3	500	0.0366	0.049	0.41	0.462	0.145	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

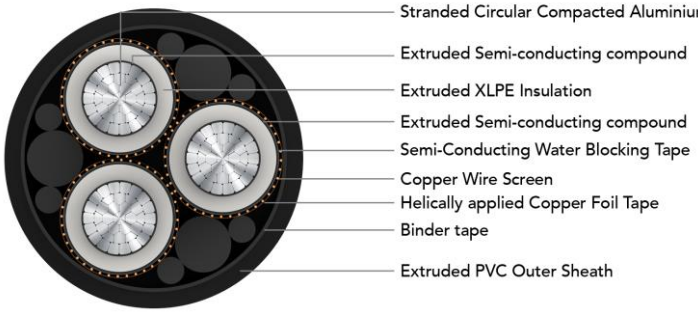
POLYCAB THREE CORE MV AS/NZS 1429.1 12.7/22 (24) KV

MV Cable with Copper Conductor, XLPE Insulation, Copper Screen and Unarmoured

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	35	2.45	0.64	1.83	3.7	5.0
3	50	3.5	0.68	1.66	3.5	7.2
3	70	4.9	0.8	1.50	3.4	10.0
3	95	6.65	0.88	1.41	3.2	13.6
3	120	8.4	0.96	1.36	3.1	17.1
3	150	10.5	1.04	1.32	3.1	21.4
3	185	12.95	1.12	1.29	3.0	26.4
3	240	16.8	1.24	1.26	2.9	34.3
3	300	21	1.32	1.24	2.9	42.8
3	400	28	1.48	1.22	2.8	56.9
3	500	35	1.64	1.21	2.7	71.5

POLYCAB THREE CORE MV AS/NZS 1429.1 12.7/22 (24) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen and Unarmoured



Salient Features

- Long life
- UV resistant
- Resistant to chemical exposure
- Resistant to water (AD7/AD8 with HDPE)
- Resistant to weather exposure

Application

POLYCAB MV 12.7/22 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.

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

Construction

- Conductor: Stranded Compacted Circular aluminium 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
- binder tape / sheath over assembled cores
- Metallic Sheath: Lead Alloy (optional)
- Outer Sheath: Extruded Polyvinyl Chloride, Colour: Black
- Insect attack Protection: Polyamide Nylon (optional)

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

Bending Radius:

Fixed Installation: 12D (PVC) / 15D (HDPE)
During Installation: 18D (PVC) / 25D (HDPE)
D is overall diameter of cable

Standard and References:

AS/NZS 1429.1
AS/NZS 1125
AS/NZS 3808

High Voltage Test (kV AC)	Partial discharge test (kV AC)		Impulse test Voltage (kV peak)
	200% to rated voltage	150% to rated voltage	
45	25	19	150

Compliance

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

OUR ACRREDITATION

ISO 9001 ISO 14001 ISO 45001

NABL ABS IRS

POLYCAB THREE CORE MV AS/NZS 1429.1 12.7/22 (24) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen and Unarmoured

DIMENSIONSAL CHARACTERISTICS:

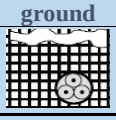
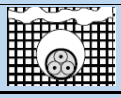
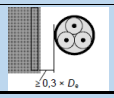
Product Code	No. of Cores	Core Cross sectional Area	Nominal Diameter		
			Under metallic screen	Over metallic screen	Overall
	No.	mm^2	mm	mm	mm
MVNZ12AXUAPH003C035SAXXXX	3	35	21.1	22.6	54.0
MVNZ12AXUAPH003C050SAXXXX	3	50	22.2	23.7	57.0
MVNZ12AXUAPH003C070SAXXXX	3	70	23.8	25.3	60.0
MVNZ12AXUAPH003C095SAXXXX	3	95	25.4	26.9	64.0
MVNZ12AXUAPH003C120SAXXXX	3	120	27	28.5	67.0
MVNZ12AXUAPH003C150SAXXXX	3	150	28.3	29.8	70.0
MVNZ12AXUAPH003C185SAXXXX	3	185	30	31.5	74.0
MVNZ12AXUAPH003C240SAXXXX	3	240	32.3	33.8	80.0
MVNZ12AXUAPH003C300SAXXXX	3	300	34.5	36.0	85.0
MVNZ12AXUAPH003C400SAXXXX	3	400	37.2	38.7	91.0
MVNZ12AXUAPH003C500SAXXXX	3	500	40.6	42.1	99.0

- Above mentioned parameters are based on 3kA/sec earth fault current capacity of copper screen

POLYCAB THREE CORE MV AS/NZS 1429.1 12.7/22 (24) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen and Unarmoured

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	35	0.868	1.113	0.16	0.625	0.196	119	103	132
3	50	0.641	0.822	0.17	0.604	0.190	140	122	158
3	70	0.443	0.568	0.2	0.571	0.179	171	150	196
3	95	0.32	0.410	0.22	0.551	0.173	203	179	236
3	120	0.253	0.325	0.24	0.533	0.167	232	205	273
3	150	0.206	0.264	0.25	0.522	0.164	260	231	309
3	185	0.164	0.211	0.28	0.510	0.160	294	262	355
3	240	0.125	0.161	0.31	0.496	0.156	340	305	415
3	300	0.1	0.129	0.33	0.484	0.152	384	346	475
3	400	0.0778	0.101	0.37	0.473	0.149	438	398	552
3	500	0.0605	0.079	0.41	0.462	0.145	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

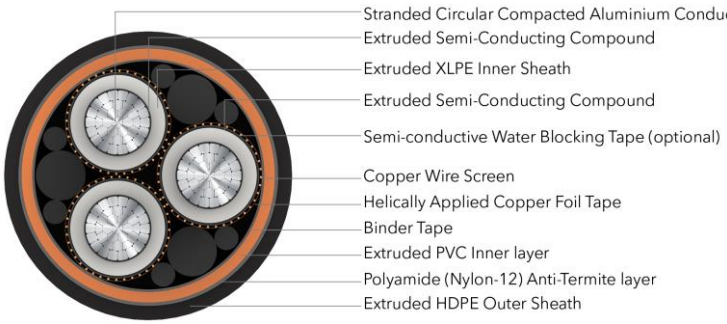
POLYCAB THREE CORE MV AS/NZS 1429.1 12.7/22 (24) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen and Unarmoured

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	35	1.75	0.64	2.27	3.7	3.1
3	50	2.5	0.68	1.98	3.5	4.5
3	70	3.5	0.8	1.73	3.4	6.2
3	95	4.75	0.88	1.57	3.2	8.5
3	120	6	0.96	1.49	3.1	10.7
3	150	7.5	1	1.43	3.1	13.4
3	185	9.25	1.12	1.37	3.0	16.5
3	240	12	1.24	1.32	2.9	21.4
3	300	15	1.32	1.29	2.9	26.8
3	400	20	1.48	1.26	2.8	35.5
3	500	25	1.64	1.24	2.7	44.7

POLYCAB THREE CORE ANTI-TERMITE MV AS/NZS 1429.1 12.7/22 (24) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen and Unarmoured



Salient Features

- Long life
- UV resistant
- Resistant to chemical exposure
- Resistant to weather exposure
- Resistant to water (AD7/AD8)
- Termite resistant

Application

POLYCAB MV 12.7/22 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.

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

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

Composite sheath

- *Inner layer : Extruded Polyvinyl Chloride, Colour: Orange*
- *Termite Protection: Polyamide (Nylon -12)*
- *Outer layer: HDPE (Black)*

Bending Radius:

Fixed Installation: 20D
During Installation: 30D

D is diameter over nylon

Standard and References:

AS/NZS 1429.1
AS/NZS 1125
AS/NZS 3808

High Voltage Test (kV AC)	Partial discharge test (kV AC)		Impulse test Voltage (kV peak)
	200% to rated voltage	150% to rated voltage	
45	25	19	150

Compliance

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

OUR ACRREDITATION

ISO 9001 ISO 14001 ISO 45001

NABL ABS IRS

POLYCAB THREE CORE ANTI-TERMITE MV AS/NZS 1429.1 12.7/22 (24) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen and Unarmoured

DIMENSIONSAL CHARACTERISTICS:

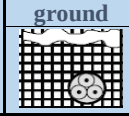
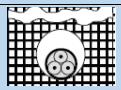
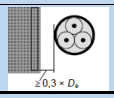
Product Code	No. of Cores	Core Cross sectional Area	Nominal Diameter		
			Under metallic screen	Over metallic screen	Overall
	No.	mm^2	mm	mm	mm
MVNZ12AXUAPH003C035SAXXXX	3	35	21.1	22.6	54.0
MVNZ12AXUAPH003C050SAXXXX	3	50	22.2	23.7	57.0
MVNZ12AXUAPH003C070SAXXXX	3	70	23.8	25.3	61.0
MVNZ12AXUAPH003C095SAXXXX	3	95	25.4	26.9	64.0
MVNZ12AXUAPH003C120SAXXXX	3	120	27	28.5	68.0
MVNZ12AXUAPH003C150SAXXXX	3	150	28.3	29.8	71.0
MVNZ12AXUAPH003C185SAXXXX	3	185	30	31.5	75.0
MVNZ12AXUAPH003C240SAXXXX	3	240	32.3	33.8	80.0
MVNZ12AXUAPH003C300SAXXXX	3	300	34.5	36.0	85.0
MVNZ12AXUAPH003C400SAXXXX	3	400	37.2	38.7	91.0
MVNZ12AXUAPH003C500SAXXXX	3	500	40.6	42.1	99.0

- Above mentioned parameters are based on 3kA/sec earth fault current capacity of copper screen

POLYCAB THREE CORE ANTI-TERMITE MV AS/NZS 1429.1 12.7/22 (24) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen and Unarmoured

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.	mm²	Ω/km	Ω/km	µF/km	mH/km	Ω/km	Amps		
3	35	0.868	1.113	0.16	0.627	0.197	119	103	132
3	50	0.641	0.822	0.17	0.605	0.190	140	122	158
3	70	0.443	0.568	0.2	0.572	0.180	171	150	196
3	95	0.32	0.410	0.22	0.552	0.174	203	179	236
3	120	0.253	0.325	0.24	0.534	0.168	232	205	273
3	150	0.206	0.264	0.25	0.523	0.164	260	231	309
3	185	0.164	0.211	0.28	0.511	0.161	294	262	355
3	240	0.125	0.161	0.31	0.498	0.156	340	305	415
3	300	0.1	0.129	0.33	0.485	0.152	384	346	475
3	400	0.0778	0.101	0.37	0.474	0.149	438	398	552
3	500	0.0605	0.079	0.41	0.463	0.145	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

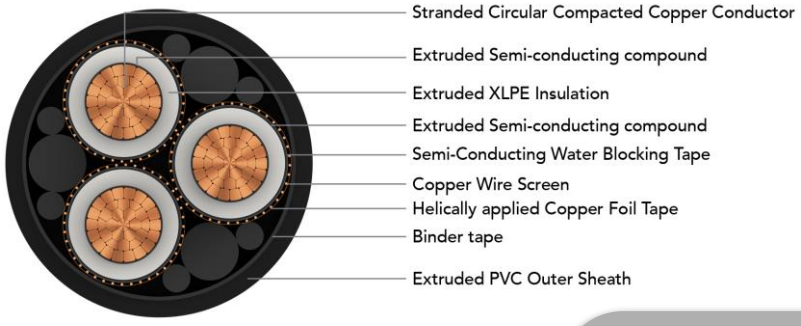
POLYCAB THREE CORE ANTI-TERMITE MV AS/NZS 1429.1 12.7/22 (24) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen and Unarmoured

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	35	1.75	0.64	2.27	3.7	3.1
3	50	2.5	0.68	1.98	3.5	4.5
3	70	3.5	0.8	1.73	3.4	6.2
3	95	4.75	0.88	1.57	3.2	8.5
3	120	6	0.96	1.49	3.1	10.7
3	150	7.5	1	1.43	3.1	13.4
3	185	9.25	1.12	1.37	3.0	16.5
3	240	12	1.24	1.32	2.9	21.4
3	300	15	1.32	1.29	2.9	26.8
3	400	20	1.48	1.26	2.8	35.5
3	500	25	1.64	1.24	2.7	44.7

POLYCAB THREE CORE MV AS/NZS 1429.1 19/33 (36) KV

MV Cable with Copper Conductor, XLPE Insulation, Copper Screen and Unarmoured



Salient Features

- Long life
- UV resistant
- Resistant to chemical exposure
- Resistant to water (AD7/AD8 with HDPE)
- Resistant to weather exposure
- Termite resistant (Optional)

Application

POLYCAB MV 19/33 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.

Voltage Rating

Nominal Voltage: : 19/33 (36) 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

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)

(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)

Bending Radius:

Fixed Installation: 12D (PVC) / 15D (HDPE)/20D (Nylon)
During Installation: 18D (PVC) / 25D (HDPE)/30D (Nylon)

D is overall diameter of cable

Standard and References:

AS/NZS 1429.1
AS/NZS 1125
AS/NZS 3808

High Voltage Test (kV AC)	Partial discharge test (kV AC)		Impulse test Voltage (kV peak)
	200% to rated voltage	150% to rated voltage	
65	38	29	200

Compliance

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

OUR ACRREDITATION

ISO 9001 ISO 14001 ISO 45001

NABL ABS IRS

POLYCAB THREE CORE MV AS/NZS 1429.1 19/33 (36) KV

MV Cable with Copper Conductor, XLPE Insulation, Copper Screen and Unarmoured

DIMENSIONSAL CHARACTERISTICS:

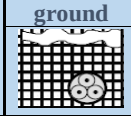
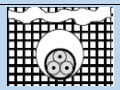
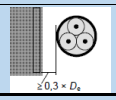
Product Code	No. of Cores	Core Cross sectional Area	Nominal Diameter		
			Under metallic screen	Over metallic screen	Overall
	No.	mm^2	mm	mm	mm
MVNZ13CXUAPH003C050SAXXXX	3	50	27.2	28.7	68.0
MVNZ13CXUAPH003C070SAXXXX	3	70	28.9	30.4	72.0
MVNZ13CXUAPH003C095SAXXXX	3	95	30.4	31.9	75.0
MVNZ13CXUAPH003C120SAXXXX	3	120	32	33.5	79.0
MVNZ13CXUAPH003C150SAXXXX	3	150	33.4	34.9	82.0
MVNZ13CXUAPH003C185SAXXXX	3	185	35.1	36.6	86.0
MVNZ13CXUAPH003C240SAXXXX	3	240	37.4	38.9	91.0
MVNZ13CXUAPH003C300SAXXXX	3	300	39.4	40.9	96.0
MVNZ13CXUAPH003C400SAXXXX	3	400	42.2	43.7	102.0
MVNZ13CXUAPH003C500SAXXXX	3	500	45.6	47.1	110.0

- Above mentioned parameters are based on 3kA/sec earth fault current capacity of copper screen

POLYCAB THREE CORE MV AS/NZS 1429.1 19/33 (36) KV

MV Cable with Copper Conductor, XLPE Insulation, Copper Screen and Unarmoured

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	50	0.387	0.494	0.14	0.642	0.202	181	158	204
3	70	0.268	0.342	0.15	0.605	0.190	221	193	253
3	95	0.193	0.246	0.17	0.585	0.184	262	231	304
3	120	0.153	0.196	0.18	0.565	0.178	298	264	351
3	150	0.124	0.159	0.19	0.552	0.173	334	297	398
3	185	0.0991	0.127	0.21	0.539	0.169	377	336	455
3	240	0.0754	0.097	0.23	0.523	0.164	434	390	531
3	300	0.0601	0.078	0.25	0.510	0.160	489	441	606
3	400	0.047	0.062	0.27	0.497	0.156	553	501	696
3	500	0.0366	0.049	0.3	0.484	0.152	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

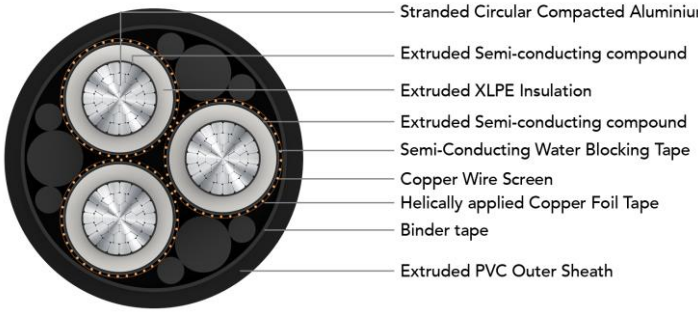
POLYCAB THREE CORE MV AS/NZS 1429.1 19/33 (36) KV

MV Cable with Copper Conductor, XLPE Insulation, Copper Screen and Unarmoured

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	50	3.5	0.84	1.66	4.1	7.2
3	70	4.9	0.9	1.50	3.9	10.0
3	95	6.65	1.01	1.41	3.7	13.6
3	120	8.4	1.07	1.36	3.6	17.1
3	150	10.5	1.13	1.32	3.5	21.4
3	185	12.95	1.25	1.29	3.4	26.4
3	240	16.8	1.37	1.26	3.3	34.3
3	300	21	1.49	1.24	3.2	42.8
3	400	28	1.61	1.22	3.1	56.9
3	500	35	1.79	1.21	3.0	71.5

POLYCAB THREE CORE MV AS/NZS 1429.1 19/33 (36) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen and Unarmoured



Salient Features

- Long life
- UV resistant
- Resistant to chemical exposure
- Resistant to water (AD7/AD8 with HDPE)
- Resistant to weather exposure

Application

POLYCAB MV 19/33 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.

Voltage Rating

Nominal Voltage: 19/33 (36) 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

Construction

- Conductor: Stranded Compacted Circular aluminium 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
- binder tape / sheath over assembled cores
- Metallic Sheath: Lead Alloy (optional)
- Outer Sheath: Extruded Polyvinyl Chloride, Colour: Black
- Insect attack Protection: Polyamide Nylon (optional)

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

Bending Radius:

Fixed Installation: 12D (PVC) / 15D (HDPE)
During Installation: 18D (PVC) / 25D (HDPE)
D is overall diameter of cable

Standard and References:

AS/NZS 1429.1
AS/NZS 1125
AS/NZS 3808

High Voltage Test (kV AC)	Partial discharge test (kV AC)		Impulse test Voltage (kV peak)
	200% to rated voltage	150% to rated voltage	
63	38	29	200

Compliance

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

OUR ACRREDITATION

ISO 9001 ISO 14001 ISO 45001

NABL ABS IRS

POLYCAB THREE CORE MV AS/NZS 1429.1 19/33 (36) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen and Unarmoured

DIMENSIONSAL CHARACTERISTICS:

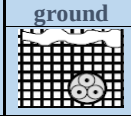
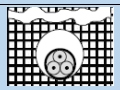
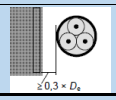
Product Code	No. of Cores	Core Cross sectional Area	Nominal Diameter		
			Under metallic screen	Over metallic screen	Overall
	No.	mm^2	mm	mm	mm
MVNZ13AXUAPH003C050SAXXXX	3	50	27.2	28.7	68.0
MVNZ13AXUAPH003C070SAXXXX	3	70	28.8	30.3	72.0
MVNZ13AXUAPH003C095SAXXXX	3	95	30.4	31.9	75.0
MVNZ13AXUAPH003C120SAXXXX	3	120	32	33.5	79.0
MVNZ13AXUAPH003C150SAXXXX	3	150	33.3	34.8	82.0
MVNZ13AXUAPH003C185SAXXXX	3	185	35	36.5	86.0
MVNZ13AXUAPH003C240SAXXXX	3	240	37.3	38.8	91.0
MVNZ13AXUAPH003C300SAXXXX	3	300	39.5	41.0	96.0
MVNZ13AXUAPH003C400SAXXXX	3	400	42.2	43.7	102.0
MVNZ13AXUAPH003C500SAXXXX	3	500	45.6	47.1	110.0

- Above mentioned parameters are based on 3kA/sec earth fault current capacity of copper screen

POLYCAB THREE CORE MV AS/NZS 1429.1 19/33 (36) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen and Unarmoured

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	50	0.641	0.822	0.14	0.642	0.202	140	122	158
3	70	0.443	0.568	0.15	0.607	0.191	171	150	196
3	95	0.32	0.410	0.17	0.585	0.184	203	179	236
3	120	0.253	0.325	0.18	0.565	0.178	232	205	273
3	150	0.206	0.264	0.19	0.553	0.174	260	231	309
3	185	0.164	0.211	0.21	0.539	0.169	294	262	355
3	240	0.125	0.161	0.23	0.524	0.165	340	305	415
3	300	0.1	0.129	0.25	0.510	0.160	384	346	475
3	400	0.0778	0.101	0.27	0.497	0.156	438	398	552
3	500	0.0605	0.079	0.3	0.484	0.152	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

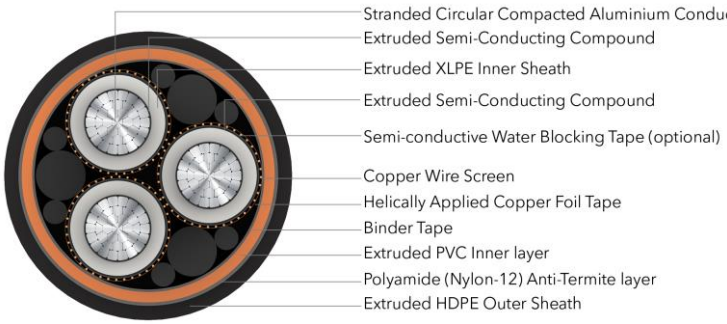
POLYCAB THREE CORE MV AS/NZS 1429.1 19/33 (36) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen and Unarmoured

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	50	2.5	0.84	1.98	4.1	4.5
3	70	3.5	0.9	1.73	3.9	6.2
3	95	4.75	1.01	1.57	3.7	8.5
3	120	6	1.07	1.49	3.6	10.7
3	150	7.5	1.13	1.43	3.5	13.4
3	185	9.25	1.25	1.37	3.4	16.5
3	240	12	1.37	1.32	3.3	21.4
3	300	15	1.49	1.29	3.2	26.8
3	400	20	1.61	1.26	3.1	35.5
3	500	25	1.79	1.24	3.0	44.7

POLYCAB THREE CORE ANTI-TERMITE MV AS/NZS 1429.1 19/33 (36) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen and Unarmoured



Salient Features

- Long life
- UV resistant
- Resistant to chemical exposure
- Resistant to weather exposure
- Resistant to water (AD7/AD8)
- Termite resistant

Application

POLYCAB MV 19/33 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.

Voltage Rating

Nominal Voltage: 19/33 (36) 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

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

Composite sheath

- *Inner layer : Extruded Polyvinyl Chloride, Colour: Orange*
- *Termite Protection: Polyamide (Nylon -12)*
- *Outer layer: HDPE (Black)*

Bending Radius:

Fixed Installation: 20D
During Installation: 30D

D is diameter over nylon

Standard and References:

AS/NZS 1429.1
AS/NZS 1125
AS/NZS 3808

High Voltage Test (kV AC)	Partial discharge test (kV AC)		Impulse test Voltage (kV peak)
	200% to rated voltage	150% to rated voltage	
63	38	29	200

Compliance

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

OUR ACRREDITATION

ISO 9001 ISO 14001 ISO 45001

NABL ABS IRS

POLYCAB THREE CORE ANTI-TERMITE MV AS/NZS 1429.1 19/33 (36) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen and Unarmoured

DIMENSIONSAL CHARACTERISTICS:

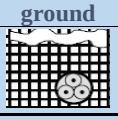
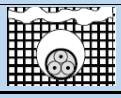
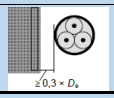
Product Code	No. of Cores	Core Cross sectional Area	Nominal Diameter		
			Under metallic screen	Over metallic screen	Overall
	No.	mm^2	mm	mm	mm
MVNZ13AXUAPH003C050SAXXXX	3	50	27.2	28.7	68.0
MVNZ13AXUAPH003C070SAXXXX	3	70	28.8	30.3	72.0
MVNZ13AXUAPH003C095SAXXXX	3	95	30.4	31.9	76.0
MVNZ13AXUAPH003C120SAXXXX	3	120	32	33.5	80.0
MVNZ13AXUAPH003C150SAXXXX	3	150	33.3	34.8	82.0
MVNZ13AXUAPH003C185SAXXXX	3	185	35	36.5	86.0
MVNZ13AXUAPH003C240SAXXXX	3	240	37.3	38.8	92.0
MVNZ13AXUAPH003C300SAXXXX	3	300	39.5	41.0	96.0
MVNZ13AXUAPH003C400SAXXXX	3	400	42.2	43.7	103.0
MVNZ13AXUAPH003C500SAXXXX	3	500	45.6	47.1	110.0

- Above mentioned parameters are based on 3kA/sec earth fault current capacity of copper screen

POLYCAB THREE CORE ANTI-TERMITE MV AS/NZS 1429.1 19/33 (36) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen and Unarmoured

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	50	0.641	0.822	0.14	0.643	0.202	140	122	158
3	70	0.443	0.568	0.15	0.608	0.191	171	150	196
3	95	0.32	0.410	0.17	0.586	0.184	203	179	236
3	120	0.253	0.325	0.18	0.567	0.178	232	205	273
3	150	0.206	0.264	0.19	0.554	0.174	260	231	309
3	185	0.164	0.211	0.21	0.541	0.170	294	262	355
3	240	0.125	0.161	0.23	0.525	0.165	340	305	415
3	300	0.1	0.129	0.25	0.511	0.160	384	346	475
3	400	0.0778	0.101	0.27	0.498	0.156	438	398	552
3	500	0.0605	0.079	0.3	0.485	0.152	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

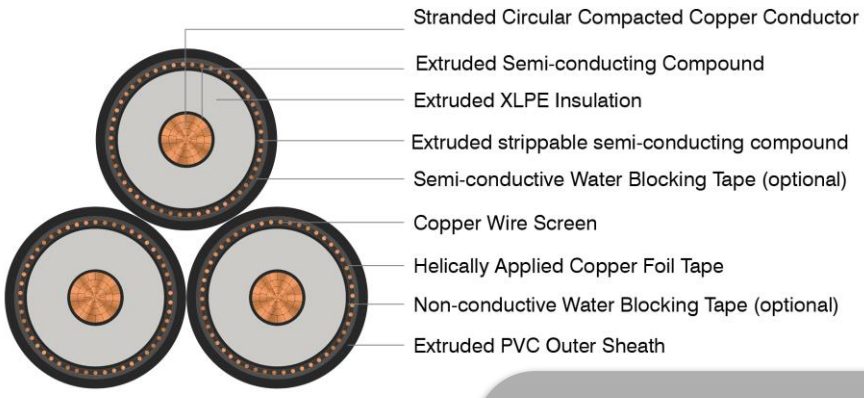
POLYCAB THREE CORE ANTI-TERMITE MV AS/NZS 1429.1 19/33 (36) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen and Unarmoured

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	50	2.5	0.84	1.98	4.1	4.5
3	70	3.5	0.9	1.73	3.9	6.2
3	95	4.75	1.01	1.57	3.7	8.5
3	120	6	1.07	1.49	3.6	10.7
3	150	7.5	1.13	1.43	3.5	13.4
3	185	9.25	1.25	1.37	3.4	16.5
3	240	12	1.37	1.32	3.3	21.4
3	300	15	1.49	1.29	3.2	26.8
3	400	20	1.61	1.26	3.1	35.5
3	500	25	1.79	1.24	3.0	44.7

POLYCAB TRIPLEX MV AS/NZS 1429.1 3.8/6.6 (7.2) KV

MV Cable with Copper Conductor, XLPE Insulation, Copper Screen - Triplex



Salient Features

- Long life
- UV resistant
- Resistant to chemical exposure
- Resistant to water (AD7 /AD8 with HDPE)
- Resistant to weather exposure
- Termite resistant (Optional)

Application

POLYCAB MV 3.8/6.6 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.

Voltage Rating

Nominal Voltage: 3.8/6.6 (7.2) 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

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

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

Standard and References:

AS/NZS 1429.1
AS/NZS 1125
AS/NZS 3008

High Voltage Test (kV AC)	Partial discharge test (kV AC)		Impulse test Voltage (kV peak)
	200% to rated voltage	150% to rated voltage	
12.5	7.6	5.7	60

Compliance

- Conductor resistance AS/NZS 1125
- Insulation resistance AS/NZS 1429.1
- Short Circuit Temp. IEC 60986

OUR ACRREDITATION

ISO 9001 ISO 14001 ISO 45001

NABL ABS IRS

POLYCAB TRIPLEX MV AS/NZS 1429.1 3.8/6.6 (7.2) KV

MV Cable with Copper Conductor, XLPE Insulation, Copper Screen - Triplex

DIMENSIONSAL CHARACTERISTICS :

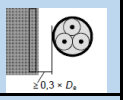
Product Code	No. of Single Cores	Core Cross sectional Area	Nominal Diameter		
			Over Screen	Each Phase	Overall
	No.	mm^2	mm	mm	mm
MVNZ15CXUAPH001T016SAXXXX	3	16	14.8	19.0	40.0
MVNZ15CXUAPH001T025SAXXXX	3	25	16.0	20.0	43.0
MVNZ15CXUAPH001T035SAXXXX	3	35	17.0	21.0	45.0
MVNZ15CXUAPH001T050SAXXXX	3	50	18.1	22.0	47.0
MVNZ15CXUAPH001T070SAXXXX	3	70	19.8	24.0	51.0
MVNZ15CXUAPH001T095SAXXXX	3	95	21.3	25.0	54.0
MVNZ15CXUAPH001T120SAXXXX	3	120	22.9	27.0	58.0
MVNZ15CXUAPH001T150SAXXXX	3	150	24.3	28.0	61.0
MVNZ15CXUAPH001T185SAXXXX	3	185	26.0	30.0	65.0
MVNZ15CXUAPH001T240SAXXXX	3	240	28.5	33.0	70.0
MVNZ15CXUAPH001T300SAXXXX	3	300	30.9	35.0	76.0
MVNZ15CXUAPH001T400SAXXXX	3	400	34.1	39.0	83.0
MVNZ15CXUAPH001T500SAXXXX	3	500	37.9	43.0	92.0

- Above mentioned parameters are based on 3kA/sec earth fault current capacity of copper screen

POLYCAB TRIPLEX MV AS/NZS 1429.1 3.8/6.6 (7.2) KV

MV Cable with Copper Conductor, XLPE Insulation, Copper Screen - Triplex

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	16	1.15	1.466	0.22	0.475	0.149	101	87	109
3 x 1	25	0.727	0.927	0.25	0.442	0.139	129	112	142
3 x 1	35	0.524	0.668	0.28	0.421	0.132	153	133	170
3 x 1	50	0.387	0.494	0.31	0.401	0.126	181	158	204
3 x 1	70	0.268	0.342	0.36	0.369	0.116	221	193	253
3 x 1	95	0.193	0.247	0.4	0.353	0.111	262	231	304
3 x 1	120	0.153	0.196	0.45	0.336	0.106	298	264	351
3 x 1	150	0.124	0.159	0.49	0.326	0.102	334	297	398
3 x 1	185	0.0991	0.128	0.54	0.316	0.099	377	336	455
3 x 1	240	0.0754	0.098	0.58	0.305	0.096	434	390	531
3 x 1	300	0.0601	0.079	0.59	0.299	0.094	489	441	606
3 x 1	400	0.047	0.063	0.62	0.291	0.091	553	501	696
3 x 1	500	0.0366	0.051	0.66	0.284	0.089	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

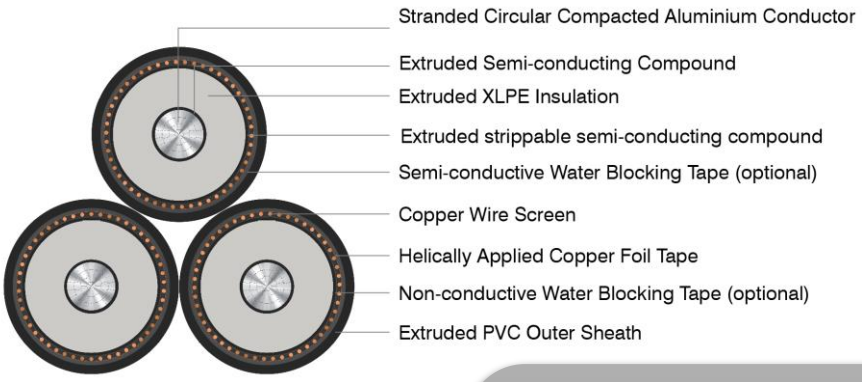
POLYCAB TRIPLEX MV AS/NZS 1429.1 3.8/6.6 (7.2) KV

MV Cable with Copper Conductor, XLPE Insulation, Copper Screen - Triplex

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	16	1.1	0.26	2.6	2.1	2.3
3 x 1	25	1.8	0.3	2.1	2.0	3.6
3 x 1	35	2.5	0.33	1.8	2.0	5.0
3 x 1	50	3.5	0.37	1.7	1.9	7.2
3 x 1	70	4.9	0.43	1.5	1.9	10.0
3 x 1	95	6.7	0.48	1.4	1.8	13.6
3 x 1	120	8.4	0.54	1.4	1.8	17.1
3 x 1	150	10.5	0.58	1.3	1.8	21.4
3 x 1	185	13.0	0.64	1.3	1.7	26.4
3 x 1	240	16.8	0.69	1.3	1.7	34.3
3 x 1	300	21.0	0.7	1.2	1.5	42.8
3 x 1	400	28.0	0.74	1.2	1.4	56.9
3 x 1	500	35.0	0.79	1.2	1.3	71.5

POLYCAB TRIPLEX MV AS/NZS 1429.1 3.8/6.6 (7.2) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen - Triplex



Salient Features

- Long life
- UV resistant
- Resistant to chemical exposure
- Resistant to water (AD7/AD8 with HDPE)
- Resistant to weather exposure

Application

POLYCAB MV 3.8/6.6 KV XLPE insulated with Aluminium conductor Triplex cable is suitable to use for power supply to wide networks i.e. Commercial, Industrial and Urban / Residential.

Voltage Rating

Nominal Voltage: 3.8/6.6 (7.2) 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

Construction

- Conductor: Stranded Compacted Circular aluminium 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 LSZH Outer sheath, and parameters will change accordingly)

Three Single Core Cables twisted and assembled to form triplex formation

Bending Radius:

Fixed Installation: 12D (PVC) / 15D (HDPE)
During Installation: 18D (PVC) / 25D (HDPE)
D is overall diameter of each cable

Standard and References:

AS/NZS 1429.1
AS/NZS 1125
AS/NZS 3008

High Voltage Test (kV AC)	Partial discharge test (kV AC)		Impulse test Voltage (kV peak)
	200% to rated voltage	150% to rated voltage	
12.5	7.6	5.7	60

Compliance

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

OUR ACRREDITATION

ISO 9001 ISO 14001 ISO 45001

NABL ABS IRS

POLYCAB TRIPLEX MV AS/NZS 1429.1 3.8/6.6 (7.2) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen - Triplex

DIMENSIONSAL CHARACTERISTICS:

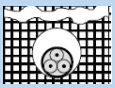
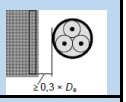
Product Code	No. of Single Cores	Core Cross sectional Area	Nominal Diameter		
			Over Screen	Each Phase	Overall
	No.	mm^2	mm	mm	mm
MVNZ15AXUAPH001T016SAXXXX	3	16	14.7	19.0	40.0
MVNZ15AXUAPH001T025SAXXXX	3	25	16.0	20.0	43.0
MVNZ15AXUAPH001T035SAXXXX	3	35	17.0	21.0	45.0
MVNZ15AXUAPH001T050SAXXXX	3	50	18.1	22.0	47.0
MVNZ15AXUAPH001T070SAXXXX	3	70	19.7	24.0	51.0
MVNZ15AXUAPH001T095SAXXXX	3	95	21.3	25.0	54.0
MVNZ15AXUAPH001T120SAXXXX	3	120	22.9	27.0	58.0
MVNZ15AXUAPH001T150SAXXXX	3	150	24.2	28.0	60.0
MVNZ15AXUAPH001T185SAXXXX	3	185	25.9	30.0	64.0
MVNZ15AXUAPH001T240SAXXXX	3	240	28.4	33.0	70.0
MVNZ15AXUAPH001T300SAXXXX	3	300	31.0	35.0	76.0
MVNZ15AXUAPH001T400SAXXXX	3	400	34.1	39.0	83.0
MVNZ15AXUAPH001T500SAXXXX	3	500	37.9	43.0	92.0

- Above mentioned parameters are based on 3kA/sec earth fault current capacity of copper screen

POLYCAB TRIPLEX MV AS/NZS 1429.1 3.8/6.6 (7.2) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen - Triplex

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 @ ambient 45˚C		
							Buried direct in ground 	In a buried duct 	In Air 
No.	mm²	Ω/km	Ω/km	µF/km	mH/km	Ω/km	Amps		
3 x 1	16	1.91	2.449	0.22	0.478	0.150	78	67	84
3 x 1	25	1.2	1.539	0.25	0.442	0.139	100	87	110
3 x 1	35	0.868	1.113	0.28	0.421	0.132	119	103	132
3 x 1	50	0.641	0.822	0.31	0.401	0.126	140	122	158
3 x 1	70	0.443	0.568	0.36	0.370	0.116	171	150	196
3 x 1	95	0.32	0.411	0.4	0.353	0.111	203	179	236
3 x 1	120	0.253	0.325	0.45	0.336	0.106	232	205	273
3 x 1	150	0.206	0.265	0.49	0.326	0.103	260	231	309
3 x 1	185	0.164	0.211	0.53	0.317	0.100	294	262	355
3 x 1	240	0.125	0.161	0.58	0.306	0.096	340	305	415
3 x 1	300	0.1	0.130	0.6	0.298	0.094	384	346	475
3 x 1	400	0.0778	0.102	0.62	0.291	0.091	438	398	552
3 x 1	500	0.0605	0.080	0.66	0.284	0.089	505	460	646

*: 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

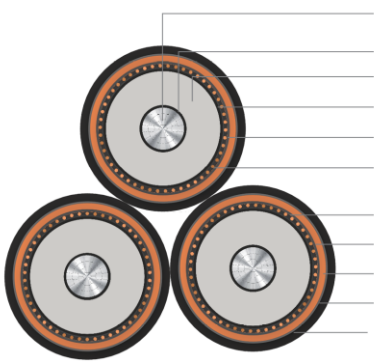
POLYCAB TRIPLEX MV AS/NZS 1429.1 3.8/6.6 (7.2) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen - Triplex

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 x 1	16	0.8	0.26	3.6	2.1	1.5
3 x 1	25	1.3	0.3	2.7	2.0	2.4
3 x 1	35	1.8	0.33	2.3	2.0	3.3
3 x 1	50	2.5	0.37	2.0	1.9	4.7
3 x 1	70	3.5	0.43	1.7	1.9	6.6
3 x 1	95	4.8	0.48	1.6	1.8	9.0
3 x 1	120	6.0	0.54	1.5	1.8	11.3
3 x 1	150	7.5	0.58	1.4	1.8	14.2
3 x 1	185	9.3	0.63	1.4	1.7	17.4
3 x 1	240	12.0	0.69	1.3	1.7	22.6
3 x 1	300	15.0	0.72	1.3	1.5	28.3
3 x 1	400	20.0	0.74	1.3	1.4	37.6
3 x 1	500	25.0	0.79	1.2	1.3	47.2

POLYCAB TRIPLEX ANTI-TERMITE MV AS/NZS 1429.1 3.8/6.6 (7.2) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen - Triplex



Salient Features

- Long life
- UV resistant
- Resistant to chemical exposure
- Resistant to water (AD7/AD8 with HDPE)
- Resistant to weather exposure
- Termite resistant

Application

POLYCAB MV 3.8/6.6 KV XLPE insulated with Aluminium conductor Triplex cable is suitable to use for power supply to wide networks i.e. Commercial, Industrial and Urban / Residential.

Voltage Rating

Nominal Voltage: 3.8/6.6 (7.2) 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

Construction

- Conductor: Stranded Compacted Circular aluminium 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)

Composite sheath

- Inner layer : Extruded Polyvinyl Chloride, Colour: Orange
- Termite Protection: Polyamide (Nylon -12)
- Outer layer: HDPE (Black)

Three Single Core Cables twisted and assembled to form triplex formation

Bending Radius:

Fixed Installation: 20D
During Installation: 30D

D is diameter over nylon

Standard and References:

AS/NZS 1429.1
AS/NZS 1125
AS/NZS 3008

High Voltage Test (kV AC)	Partial discharge test (kV AC)		Impulse test Voltage (kV peak)
	200% to rated voltage	150% to rated voltage	
12.5	7.6	5.7	60

Compliance

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

OUR ACRREDITATION

ISO 9001 ISO 14001 ISO 45001

NABL ABS IRS

POLYCAB TRIPLEX ANTI-TERMITE MV AS/NZS 1429.1 3.8/6.6 (7.2) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen - Triplex

DIMENSIONSAL CHARACTERISTICS:

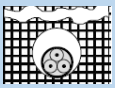
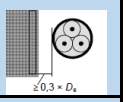
Product Code	No. of Single Cores	Core Cross sectional Area	Nominal Diameter		
			Over Screen	Each Phase	Overall
	No.	mm^2	mm	mm	mm
MVNZ15AXUAPH001T016SAXXXX	3	16	14.7	21.0	45.0
MVNZ15AXUAPH001T025SAXXXX	3	25	16.0	22.0	47.0
MVNZ15AXUAPH001T035SAXXXX	3	35	17.0	23.0	49.0
MVNZ15AXUAPH001T050SAXXXX	3	50	18.1	24.0	52.0
MVNZ15AXUAPH001T070SAXXXX	3	70	19.7	26.0	55.0
MVNZ15AXUAPH001T095SAXXXX	3	95	21.3	27.0	59.0
MVNZ15AXUAPH001T120SAXXXX	3	120	22.9	29.0	62.0
MVNZ15AXUAPH001T150SAXXXX	3	150	24.2	30.0	65.0
MVNZ15AXUAPH001T185SAXXXX	3	185	25.9	32.0	69.0
MVNZ15AXUAPH001T240SAXXXX	3	240	28.4	35.0	74.0
MVNZ15AXUAPH001T300SAXXXX	3	300	31.0	37.0	80.0
MVNZ15AXUAPH001T400SAXXXX	3	400	34.1	40.0	86.0
MVNZ15AXUAPH001T500SAXXXX	3	500	37.9	44.0	95.0

- Above mentioned parameters are based on 3kA/sec earth fault current capacity of copper screen

POLYCAB TRIPLEX ANTI-TERMITE MV AS/NZS 1429.1 3.8/6.6 (7.2) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen - Triplex

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 @ ambient 45˚C		
							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	16	1.91	2.45	0.22	0.500	0.157	78	67	84
3 x 1	25	1.2	1.54	0.25	0.463	0.145	100	87	110
3 x 1	35	0.868	1.11	0.28	0.441	0.138	119	103	132
3 x 1	50	0.641	0.82	0.31	0.421	0.132	140	122	158
3 x 1	70	0.443	0.57	0.36	0.388	0.122	171	150	196
3 x 1	95	0.32	0.41	0.4	0.370	0.116	203	179	236
3 x 1	120	0.253	0.32	0.45	0.352	0.111	232	205	273
3 x 1	150	0.206	0.26	0.49	0.342	0.107	260	231	309
3 x 1	185	0.164	0.21	0.53	0.330	0.104	294	262	355
3 x 1	240	0.125	0.16	0.58	0.318	0.100	340	305	415
3 x 1	300	0.1	0.13	0.6	0.308	0.097	384	346	475
3 x 1	400	0.0778	0.10	0.62	0.300	0.094	438	398	552
3 x 1	500	0.0605	0.08	0.66	0.290	0.091	505	460	646

*: 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

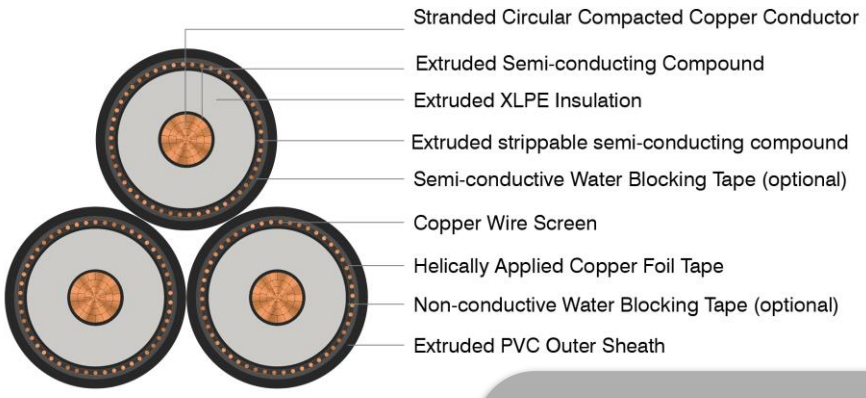
POLYCAB TRIPLEX ANTI-TERMITE MV AS/NZS 1429.1 3.8/6.6 (7.2) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen - Triplex

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 x 1	16	0.8	0.26	3.61	2.1	1.5
3 x 1	25	1.25	0.3	2.70	2.0	2.4
3 x 1	35	1.75	0.33	2.27	2.0	3.3
3 x 1	50	2.5	0.37	1.98	1.9	4.7
3 x 1	70	3.5	0.43	1.73	1.9	6.6
3 x 1	95	4.75	0.48	1.57	1.8	9.0
3 x 1	120	6	0.54	1.48	1.8	11.3
3 x 1	150	7.5	0.58	1.42	1.8	14.2
3 x 1	185	9.25	0.63	1.37	1.7	17.4
3 x 1	240	12	0.69	1.32	1.7	22.6
3 x 1	300	15	0.72	1.29	1.5	28.3
3 x 1	400	20	0.74	1.26	1.4	37.6
3 x 1	500	25	0.79	1.24	1.3	47.2

POLYCAB TRIPLEX MV AS/NZS 1429.1 6.35/11 (12) KV

MV Cable with Copper Conductor, XLPE Insulation, Copper Screen - Triplex



Salient Features

- Long life
- UV resistant
- Resistant to chemical exposure
- Resistant to water (AD7 /AD8 with HDPE)
- Resistant to weather exposure
- Termite resistant (Optional)

Application

POLYCAB MV 6.35/11 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.

Voltage Rating

Nominal Voltage: 6.35/11 (12) 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

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

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

Standard and References:

AS/NZS 1429.1
AS/NZS 1125
AS/NZS 3008

High Voltage Test (kV AC)	Partial discharge test (kV AC)		Impulse test Voltage (kV peak)
	200% to rated voltage	150% to rated voltage	
21	13	17	95

Compliance

- Conductor resistance AS/NZS 1125
- Insulation resistance AS/NZS 1429.1
- Short Circuit Temp. IEC 60986

POLYCAB TRIPLEX MV AS/NZS 1429.1 6.35/11 (12) KV

MV Cable with Copper Conductor, XLPE Insulation, Copper Screen - Triplex

DIMENSIONSAL CHARACTERISTICS :

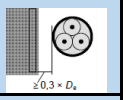
Product Code	No. of Single Cores	Core Cross sectional Area	Nominal Diameter		
			Over Screen	Each Phase	Overall
	No.	mm^2	mm	mm	mm
MVNZ17CXUAPH001T016SAXXXX	3	16	16.6	21.0	44.0
MVNZ17CXUAPH001T025SAXXXX	3	25	17.8	22.0	46.0
MVNZ17CXUAPH001T035SAXXXX	3	35	18.8	23.0	49.0
MVNZ17CXUAPH001T050SAXXXX	3	50	19.9	24.0	51.0
MVNZ17CXUAPH001T070SAXXXX	3	70	21.5	25.0	54.0
MVNZ17CXUAPH001T095SAXXXX	3	95	23.1	27.0	58.0
MVNZ17CXUAPH001T120SAXXXX	3	120	24.7	29.0	61.0
MVNZ17CXUAPH001T150SAXXXX	3	150	26.0	30.0	65.0
MVNZ17CXUAPH001T185SAXXXX	3	185	27.7	32.0	68.0
MVNZ17CXUAPH001T240SAXXXX	3	240	30.0	34.0	74.0
MVNZ17CXUAPH001T300SAXXXX	3	300	32.2	37.0	79.0
MVNZ17CXUAPH001T400SAXXXX	3	400	34.9	40.0	85.0
MVNZ17CXUAPH001T500SAXXXX	3	500	38.3	43.0	93.0

- Above mentioned parameters are based on 3kA/sec earth fault current capacity of copper screen

POLYCAB TRIPLEX MV AS/NZS 1429.1 6.35/11 (12) KV

MV Cable with Copper Conductor, XLPE Insulation, Copper Screen - Triplex

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	16	1.15	1.466	0.18	0.493	0.155	101	87	109
3 x 1	25	0.727	0.927	0.2	0.460	0.144	129	112	142
3 x 1	35	0.524	0.668	0.22	0.437	0.137	153	133	170
3 x 1	50	0.387	0.494	0.25	0.417	0.131	181	158	204
3 x 1	70	0.268	0.342	0.28	0.385	0.121	221	193	253
3 x 1	95	0.193	0.247	0.31	0.367	0.115	262	231	304
3 x 1	120	0.153	0.196	0.35	0.349	0.110	298	264	351
3 x 1	150	0.124	0.159	0.37	0.340	0.107	334	297	398
3 x 1	185	0.0991	0.128	0.41	0.329	0.103	377	336	455
3 x 1	240	0.0754	0.098	0.46	0.317	0.099	434	390	531
3 x 1	300	0.0601	0.079	0.5	0.306	0.096	489	441	606
3 x 1	400	0.047	0.063	0.56	0.296	0.093	553	501	696
3 x 1	500	0.0366	0.051	0.63	0.286	0.090	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

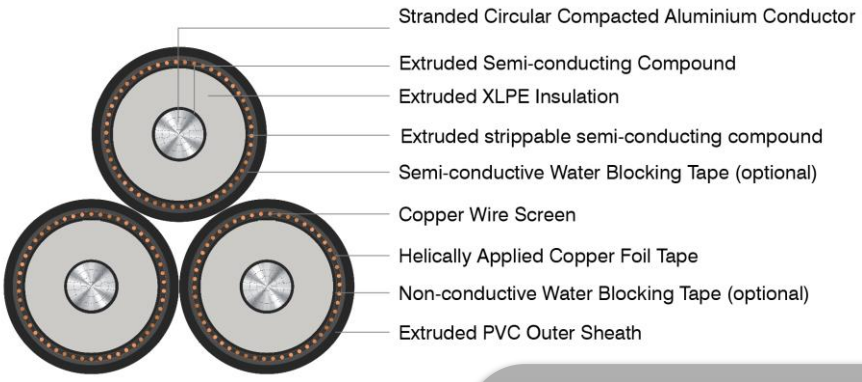
POLYCAB TRIPLEX MV AS/NZS 1429.1 6.35/11 (12) KV

MV Cable with Copper Conductor, XLPE Insulation, Copper Screen - Triplex

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	16	1.1	0.36	2.6	2.8	2.3
3 x 1	25	1.3	0.4	2.7	2.7	3.6
3 x 1	35	1.8	0.44	2.3	2.6	5.0
3 x 1	50	2.5	0.5	2.0	2.5	7.2
3 x 1	70	3.5	0.56	1.7	2.4	10.0
3 x 1	95	4.8	0.62	1.6	2.3	13.6
3 x 1	120	6.0	0.7	1.5	2.3	17.1
3 x 1	150	7.5	0.74	1.4	2.3	21.4
3 x 1	185	9.3	0.82	1.4	2.2	26.4
3 x 1	240	12.0	0.92	1.3	2.2	34.3
3 x 1	300	15.0	1	1.3	2.2	42.8
3 x 1	400	20.0	1.12	1.3	2.1	56.9
3 x 1	500	25.0	1.26	1.2	2.1	71.5

POLYCAB TRIPLEX MV AS/NZS 1429.1 6.35/11 (12) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen - Triplex



Salient Features

- Long life
- UV resistant
- Resistant to chemical exposure
- Resistant to water (AD7/AD8 with HDPE)
- Resistant to weather exposure

Application

POLYCAB MV 6.35/11 KV XLPE insulated with Aluminium conductor Triplex cable is suitable to use for power supply to wide networks i.e. Commercial, Industrial and Urban / Residential.

Voltage Rating

Nominal Voltage: 6.35/11 (12) 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

Construction

- Conductor: Stranded Compacted Circular aluminium 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 LSZH Outer sheath, and parameters will change accordingly)

Three Single Core Cables twisted and assembled to form triplex formation

Bending Radius:

Fixed Installation: 12D (PVC) / 15D (HDPE)
During Installation: 18D (PVC) / 25D (HDPE)
D is overall diameter of each cable

Standard and References:

AS/NZS 1429.1
AS/NZS 1125
AS/NZS 3008

High Voltage Test (kV AC)	Partial discharge test (kV AC)		Impulse test Voltage (kV peak)
	200% to rated voltage	150% to rated voltage	
21	13	17	95

Compliance

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

OUR ACRREDITATION

ISO 9001 ISO 14001 ISO 45001

NABL ABS IRS

POLYCAB TRIPLEX MV AS/NZS 1429.1 6.35/11 (12) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen - Triplex

DIMENSIONSAL CHARACTERISTICS:

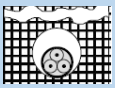
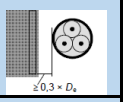
Product Code	No. of Single Cores	Core Cross sectional Area	Nominal Diameter		
			Over Screen	Each Phase	Overall
	No.	mm^2	mm	mm	mm
MVNZ17AXUAPH001T016SAXXXX	3	16	16.5	20.0	44.0
MVNZ17AXUAPH001T025SAXXXX	3	25	17.8	22.0	46.0
MVNZ17AXUAPH001T035SAXXXX	3	35	18.8	23.0	49.0
MVNZ17AXUAPH001T050SAXXXX	3	50	19.9	24.0	51.0
MVNZ17AXUAPH001T070SAXXXX	3	70	21.5	25.0	54.0
MVNZ17AXUAPH001T095SAXXXX	3	95	23.1	27.0	58.0
MVNZ17AXUAPH001T120SAXXXX	3	120	24.7	29.0	61.0
MVNZ17AXUAPH001T150SAXXXX	3	150	26.0	30.0	65.0
MVNZ17AXUAPH001T185SAXXXX	3	185	27.7	32.0	68.0
MVNZ17AXUAPH001T240SAXXXX	3	240	30.0	34.0	74.0
MVNZ17AXUAPH001T300SAXXXX	3	300	32.2	37.0	79.0
MVNZ17AXUAPH001T400SAXXXX	3	400	34.9	40.0	85.0
MVNZ17AXUAPH001T500SAXXXX	3	500	38.3	43.0	93.0

- Above mentioned parameters are based on 3kA/sec earth fault current capacity of copper screen

POLYCAB TRIPLEX MV AS/NZS 1429.1 6.35/11 (12) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen - Triplex

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 @ ambient 45˚C		
							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	16	1.91	2.449	0.17	0.497	0.156	78	67	84
3 x 1	25	1.2	1.539	0.2	0.460	0.144	100	87	110
3 x 1	35	0.868	1.113	0.22	0.437	0.137	119	103	132
3 x 1	50	0.641	0.822	0.25	0.417	0.131	140	122	158
3 x 1	70	0.443	0.568	0.28	0.385	0.121	171	150	196
3 x 1	95	0.32	0.411	0.31	0.367	0.115	203	179	236
3 x 1	120	0.253	0.325	0.35	0.349	0.110	232	205	273
3 x 1	150	0.206	0.265	0.37	0.340	0.107	260	231	309
3 x 1	185	0.164	0.211	0.41	0.329	0.103	294	262	355
3 x 1	240	0.125	0.161	0.46	0.317	0.099	340	305	415
3 x 1	300	0.1	0.130	0.5	0.306	0.096	384	346	475
3 x 1	400	0.0778	0.102	0.56	0.296	0.093	438	398	552
3 x 1	500	0.0605	0.080	0.63	0.286	0.090	505	460	646

*: 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

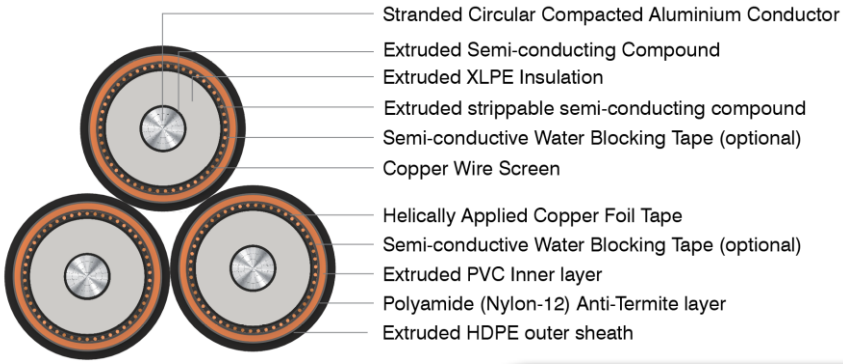
POLYCAB TRIPLEX MV AS/NZS 1429.1 6.35/11 (12) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen - Triplex

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 x 1	16	0.8	0.34	3.6	2.9	1.5
3 x 1	25	1.3	0.4	2.7	2.7	2.4
3 x 1	35	1.8	0.44	2.3	2.6	3.3
3 x 1	50	2.5	0.5	2.0	2.5	4.7
3 x 1	70	3.5	0.56	1.7	2.4	6.6
3 x 1	95	4.8	0.62	1.6	2.3	9.0
3 x 1	120	6.0	0.7	1.5	2.3	11.3
3 x 1	150	7.5	0.74	1.4	2.3	14.2
3 x 1	185	9.3	0.82	1.4	2.2	17.4
3 x 1	240	12.0	0.92	1.3	2.2	22.6
3 x 1	300	15.0	1	1.3	2.2	28.3
3 x 1	400	20.0	1.12	1.3	2.1	37.6
3 x 1	500	25.0	1.26	1.2	2.1	47.2

POLYCAB TRIPLEX ANTI-TERMITE MV AS/NZS 1429.1 6.35/11 (12) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen - Triplex



Salient Features

- Long life
- UV resistant
- Resistant to chemical exposure
- Resistant to water (AD7/AD8 with HDPE)
- Resistant to weather exposure
- Termite resistant

Application

POLYCAB MV 6.35/11 KV XLPE insulated with Aluminium conductor Triplex cable is suitable to use for power supply to wide networks i.e. Commercial, Industrial and Urban / Residential.

Voltage Rating

Nominal Voltage: 6.35/11 (12) 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

Construction

- Conductor: Stranded Compacted Circular aluminium 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)

Composite sheath

- Inner layer : Extruded Polyvinyl Chloride, Colour: Orange
- Termite Protection: Polyamide (Nylon -12)
- Outer layer: HDPE (Black)

Three Single Core Cables twisted and assembled to form triplex formation

Bending Radius:

Fixed Installation: 20D
During Installation: 30D

D is diameter over nylon

Standard and References:

AS/NZS 1429.1
AS/NZS 1125
AS/NZS 3008

High Voltage Test (kV AC)	Partial discharge test (kV AC)		Impulse test Voltage (kV peak)
	200% to rated voltage	150% to rated voltage	
21	13	17	95

Compliance

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

OUR ACRREDITATION

ISO 9001 ISO 14001 ISO 45001

NABL ABS IRS

POLYCAB TRIPLEX ANTI-TERMITE MV AS/NZS 1429.1 6.35/11 (12) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen - Triplex

DIMENSIONSAL CHARACTERISTICS:

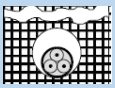
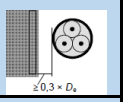
Product Code	No. of Single Cores	Core Cross sectional Area	Nominal Diameter		
			Over Screen	Each Phase	Overall
	No.	mm^2	mm	mm	mm
MVNZ17AXUAPH001T016SAXXXX	3	16	16.5	20.0	44.0
MVNZ17AXUAPH001T025SAXXXX	3	25	17.8	22.0	46.0
MVNZ17AXUAPH001T035SAXXXX	3	35	18.8	23.0	49.0
MVNZ17AXUAPH001T050SAXXXX	3	50	19.9	24.0	51.0
MVNZ17AXUAPH001T070SAXXXX	3	70	21.5	25.0	54.0
MVNZ17AXUAPH001T095SAXXXX	3	95	23.1	27.0	58.0
MVNZ17AXUAPH001T120SAXXXX	3	120	24.7	29.0	61.0
MVNZ17AXUAPH001T150SAXXXX	3	150	26.0	30.0	65.0
MVNZ17AXUAPH001T185SAXXXX	3	185	27.7	32.0	68.0
MVNZ17AXUAPH001T240SAXXXX	3	240	30.0	34.0	74.0
MVNZ17AXUAPH001T300SAXXXX	3	300	32.2	37.0	79.0
MVNZ17AXUAPH001T400SAXXXX	3	400	34.9	40.0	85.0
MVNZ17AXUAPH001T500SAXXXX	3	500	38.3	43.0	93.0

- Above mentioned parameters are based on 3kA/sec earth fault current capacity of copper screen

POLYCAB TRIPLEX ANTI-TERMITE MV AS/NZS 1429.1 6.35/11 (12) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen - Triplex

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 @ ambient 45°C		
							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	16	1.91	2.449	0.17	0.497	0.156	78	67	84
3 x 1	25	1.2	1.539	0.2	0.460	0.144	100	87	110
3 x 1	35	0.868	1.113	0.22	0.437	0.137	119	103	132
3 x 1	50	0.641	0.822	0.25	0.417	0.131	140	122	158
3 x 1	70	0.443	0.568	0.28	0.385	0.121	171	150	196
3 x 1	95	0.32	0.411	0.31	0.367	0.115	203	179	236
3 x 1	120	0.253	0.325	0.35	0.349	0.110	232	205	273
3 x 1	150	0.206	0.265	0.37	0.340	0.107	260	231	309
3 x 1	185	0.164	0.211	0.41	0.329	0.103	294	262	355
3 x 1	240	0.125	0.161	0.46	0.317	0.099	340	305	415
3 x 1	300	0.1	0.130	0.5	0.306	0.096	384	346	475
3 x 1	400	0.0778	0.102	0.56	0.296	0.093	438	398	552
3 x 1	500	0.0605	0.080	0.63	0.286	0.090	505	460	646

*: 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

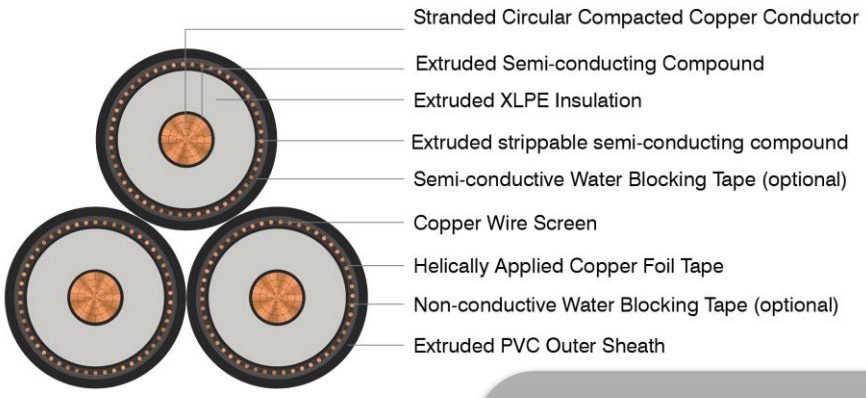
POLYCAB TRIPLEX ANTI-TERMITE MV AS/NZS 1429.1 6.35/11 (12) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen - Triplex

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 x 1	16	0.8	0.34	3.6	2.9	1.5
3 x 1	25	1.3	0.4	2.7	2.7	2.4
3 x 1	35	1.8	0.44	2.3	2.6	3.3
3 x 1	50	2.5	0.5	2.0	2.5	4.7
3 x 1	70	3.5	0.56	1.7	2.4	6.6
3 x 1	95	4.8	0.62	1.6	2.3	9.0
3 x 1	120	6.0	0.7	1.5	2.3	11.3
3 x 1	150	7.5	0.74	1.4	2.3	14.2
3 x 1	185	9.3	0.82	1.4	2.2	17.4
3 x 1	240	12.0	0.92	1.3	2.2	22.6
3 x 1	300	15.0	1	1.3	2.2	28.3
3 x 1	400	20.0	1.12	1.3	2.1	37.6
3 x 1	500	25.0	1.26	1.2	2.1	47.2

POLYCAB TRIPLEX MV AS/NZS 1429.1 12.7/22 (24) KV

MV Cable with Copper Conductor, XLPE Insulation, Copper Screen - Triplex



Salient Features

- Long life
- UV resistant
- Resistant to chemical exposure
- Resistant to water (AD7 /AD8 with HDPE)
- Resistant to weather exposure
- Termite resistant (Optional)

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.

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

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

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

Standard and References:

AS/NZS 1429.1
AS/NZS 1125
AS/NZS 3008

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

Compliance

- Conductor resistance AS/NZS 1125
- Insulation resistance AS/NZS 1429.1
- Short Circuit Temp. IEC 60986

POLYCAB TRIPLEX MV AS/NZS 1429.1 12.7/22 (24) KV

MV Cable with Copper Conductor, XLPE Insulation, Copper Screen - Triplex

DIMENSIONSAL CHARACTERISTICS :

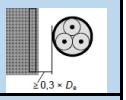
Product Code	No. of Single Cores	Core Cross sectional Area	Nominal Diameter		
			Over Screen	Each Phase	Overall
	No.	mm^2	mm	mm	mm
MVNZ12CXUAPH001T035SAXXXX	3	35	23.0	27.0	58.0
MVNZ12CXUAPH001T050SAXXXX	3	50	24.1	28.0	60.0
MVNZ12CXUAPH001T070SAXXXX	3	70	25.8	30.0	64.0
MVNZ12CXUAPH001T095SAXXXX	3	95	27.3	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

POLYCAB TRIPLEX MV AS/NZS 1429.1 12.7/22 (24) KV

MV Cable with Copper Conductor, XLPE Insulation, Copper Screen - Triplex

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
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

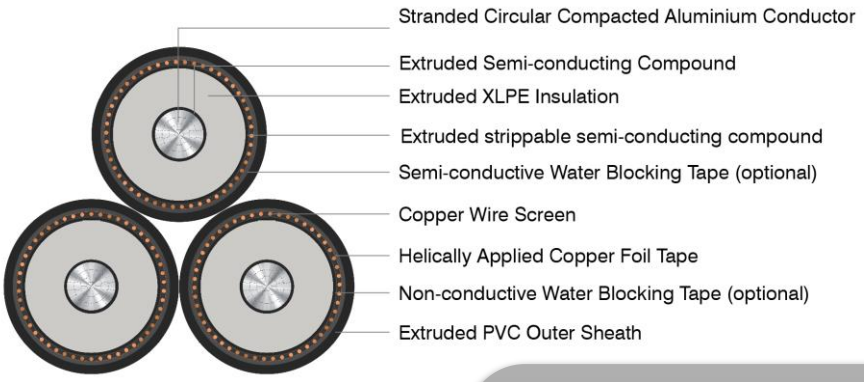
POLYCAB TRIPLEX MV AS/NZS 1429.1 12.7/22 (24) KV

MV Cable with Copper Conductor, XLPE Insulation, Copper Screen - Triplex

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

POLYCAB TRIPLEX MV AS/NZS 1429.1 12.7/22 (24) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen - Triplex



Salient Features

- Long life
- UV resistant
- Resistant to chemical exposure
- Resistant to water (AD7/AD8 with HDPE)
- Resistant to weather exposure

Application

POLYCAB MV 12.7/22 KV XLPE insulated with Aluminium conductor Triplex cable is suitable to use for power supply to wide networks i.e. Commercial, Industrial and Urban / Residential.

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

Construction

- Conductor: Stranded Compacted Circular aluminium 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 LSZH Outer sheath, and parameters will change accordingly)

Three Single Core Cables twisted and assembled to form triplex formation

Bending Radius:

Fixed Installation: 12D (PVC) / 15D (HDPE)
During Installation: 18D (PVC) / 25D (HDPE)
D is overall diameter of each cable

Standard and References:

AS/NZS 1429.1
AS/NZS 1125
AS/NZS 3008

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

Compliance

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

OUR ACRREDITATION

ISO 9001 ISO 14001 ISO 45001

NABL ABS IRS

POLYCAB TRIPLEX MV AS/NZS 1429.1 12.7/22 (24) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen - Triplex

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
MVNZ12AXUAPH001T035SAXXXX	3	35	23.0	27.0	58.0
MVNZ12AXUAPH001T050SAXXXX	3	50	24.1	28.0	60.0
MVNZ12AXUAPH001T070SAXXXX	3	70	25.7	30.0	64.0
MVNZ12AXUAPH001T095SAXXXX	3	95	27.3	31.0	67.0
MVNZ12AXUAPH001T120SAXXXX	3	120	28.9	33.0	71.0
MVNZ12AXUAPH001T150SAXXXX	3	150	30.2	35.0	74.0
MVNZ12AXUAPH001T185SAXXXX	3	185	31.9	36.0	78.0
MVNZ12AXUAPH001T240SAXXXX	3	240	34.2	39.0	83.0
MVNZ12AXUAPH001T300SAXXXX	3	300	36.4	41.0	88.0
MVNZ12AXUAPH001T400SAXXXX	3	400	39.1	44.0	94.0
MVNZ12AXUAPH001T500SAXXXX	3	500	42.5	48.0	102.0

- Above mentioned parameters are based on 3kA/sec earth fault current capacity of copper screen

POLYCAB TRIPLEX MV AS/NZS 1429.1 12.7/22 (24) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen - Triplex

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 @ ambient 45˚C		
							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	0.868	1.113	0.16	0.472	0.148	119	103	132
3 x 1	50	0.641	0.822	0.17	0.450	0.142	140	122	158
3 x 1	70	0.443	0.568	0.2	0.418	0.131	171	150	196
3 x 1	95	0.32	0.411	0.22	0.397	0.125	203	179	236
3 x 1	120	0.253	0.325	0.24	0.379	0.119	232	205	273
3 x 1	150	0.206	0.265	0.25	0.368	0.116	260	231	309
3 x 1	185	0.164	0.211	0.28	0.356	0.112	294	262	355
3 x 1	240	0.125	0.161	0.31	0.341	0.107	340	305	415
3 x 1	300	0.1	0.130	0.33	0.329	0.103	384	346	475
3 x 1	400	0.0778	0.102	0.37	0.318	0.100	438	398	552
3 x 1	500	0.0605	0.080	0.41	0.306	0.096	505	460	646

*: 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

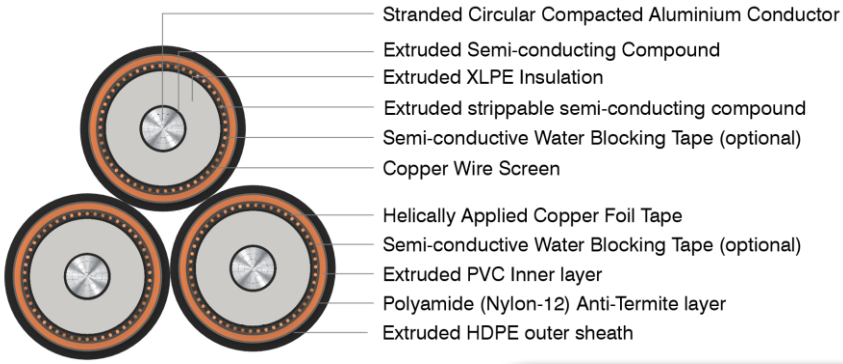
POLYCAB TRIPLEX MV AS/NZS 1429.1 12.7/22 (24) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen - Triplex

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 x 1	35	1.8	0.64	2.3	3.7	3.3
3 x 1	50	2.5	0.68	2.0	3.5	4.7
3 x 1	70	3.5	0.8	1.7	3.4	6.6
3 x 1	95	4.8	0.88	1.6	3.2	9.0
3 x 1	120	6.0	0.96	1.5	3.1	11.3
3 x 1	150	7.5	1	1.4	3.1	14.2
3 x 1	185	9.3	1.12	1.4	3.0	17.4
3 x 1	240	12.0	1.24	1.3	2.9	22.6
3 x 1	300	15.0	1.32	1.3	2.9	28.3
3 x 1	400	20.0	1.48	1.3	2.8	37.6
3 x 1	500	25.0	1.64	1.2	2.7	47.2

POLYCAB TRIPLEX ANTI-TERMITE MV AS/NZS 1429.1 12.7/22 (24) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen - Triplex



Salient Features

- Long life
- UV resistant
- Resistant to chemical exposure
- Resistant to water (AD7/AD8 with HDPE)
- Resistant to weather exposure
- Termite resistant

Application

POLYCAB MV 12.7/22 KV XLPE insulated with Aluminium conductor Triplex cable is suitable to use for power supply to wide networks i.e. Commercial, Industrial and Urban / Residential.

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

Construction

- Conductor: Stranded Compacted Circular aluminium 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)

Composite sheath

- Inner layer : Extruded Polyvinyl Chloride, Colour: Orange
- Termite Protection: Polyamide (Nylon -12)
- Outer layer: HDPE (Black)

Three Single Core Cables twisted and assembled to form triplex formation

Bending Radius:

Fixed Installation: 20D
During Installation: 30D

D is diameter over nylon

Standard and References:

AS/NZS 1429.1
AS/NZS 1125
AS/NZS 3008

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

Compliance

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

OUR ACRREDITATION

ISO 9001 ISO 14001 ISO 45001

NABL ABS IRS

POLYCAB TRIPLEX ANTI-TERMITE MV AS/NZS 1429.1 12.7/22 (24) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen - Triplex

DIMENSIONSAL CHARACTERISTICS:

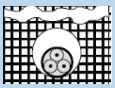
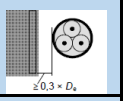
Product Code	No. of Single Cores	Core Cross sectional Area	Nominal Diameter		
			Over Screen	Each Phase	Overall
	No.	mm^2	mm	mm	mm
MVNZ12AXUAPH001T035SAXXXX	3	35	23.0	29.0	62.0
MVNZ12AXUAPH001T050SAXXXX	3	50	24.1	30.0	65.0
MVNZ12AXUAPH001T070SAXXXX	3	70	25.7	32.0	68.0
MVNZ12AXUAPH001T095SAXXXX	3	95	27.3	33.0	72.0
MVNZ12AXUAPH001T120SAXXXX	3	120	28.9	35.0	75.0
MVNZ12AXUAPH001T150SAXXXX	3	150	30.2	36.0	78.0
MVNZ12AXUAPH001T185SAXXXX	3	185	31.9	38.0	82.0
MVNZ12AXUAPH001T240SAXXXX	3	240	34.2	40.0	87.0
MVNZ12AXUAPH001T300SAXXXX	3	300	36.4	43.0	91.0
MVNZ12AXUAPH001T400SAXXXX	3	400	39.1	45.0	97.0
MVNZ12AXUAPH001T500SAXXXX	3	500	42.5	49.0	105.0

- Above mentioned parameters are based on 3kA/sec earth fault current capacity of copper screen

POLYCAB TRIPLEX ANTI-TERMITE MV AS/NZS 1429.1 12.7/22 (24) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen - Triplex

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 @ ambient 45˚C		
							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	0.868	1.11	0.16	0.488	0.153	119	103	132
3 x 1	50	0.641	0.82	0.17	0.466	0.146	140	122	158
3 x 1	70	0.443	0.57	0.2	0.432	0.136	171	150	196
3 x 1	95	0.32	0.41	0.22	0.411	0.129	203	179	236
3 x 1	120	0.253	0.32	0.24	0.392	0.123	232	205	273
3 x 1	150	0.206	0.26	0.25	0.380	0.119	260	231	309
3 x 1	185	0.164	0.21	0.28	0.367	0.115	294	262	355
3 x 1	240	0.125	0.16	0.31	0.350	0.110	340	305	415
3 x 1	300	0.1	0.13	0.33	0.337	0.106	384	346	475
3 x 1	400	0.0778	0.10	0.37	0.324	0.102	438	398	552
3 x 1	500	0.0605	0.08	0.41	0.311	0.098	505	460	646

*: 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

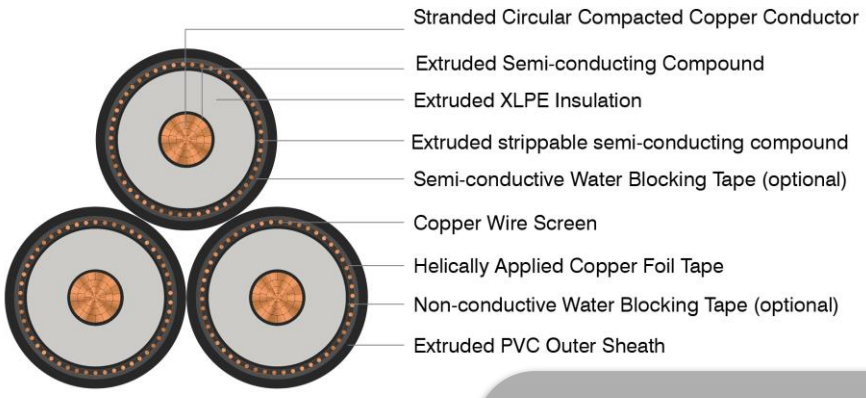
POLYCAB TRIPLEX ANTI-TERMITE MV AS/NZS 1429.1 12.7/22 (24) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen - Triplex

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 x 1	35	1.75	0.64	2.27	3.7	3.3
3 x 1	50	2.5	0.68	1.98	3.5	4.7
3 x 1	70	3.5	0.8	1.73	3.4	6.6
3 x 1	95	4.75	0.88	1.57	3.2	9.0
3 x 1	120	6	0.96	1.49	3.1	11.3
3 x 1	150	7.5	1	1.43	3.1	14.2
3 x 1	185	9.25	1.12	1.37	3.0	17.4
3 x 1	240	12	1.24	1.32	2.9	22.6
3 x 1	300	15	1.32	1.29	2.9	28.3
3 x 1	400	20	1.48	1.26	2.8	37.6
3 x 1	500	25	1.64	1.24	2.7	47.2

POLYCAB TRIPLEX MV AS/NZS 1429.1 19/33 (36) KV

MV Cable with Copper Conductor, XLPE Insulation, Copper Screen - Triplex



Salient Features

- Long life
- UV resistant
- Resistant to chemical exposure
- Resistant to water (AD7 /AD8 with HDPE)
- Resistant to weather exposure
- Termite resistant (Optional)

Application

POLYCAB MV 19/33 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.

Voltage Rating

Nominal Voltage: 19/33 (36) 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

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

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

Standard and References:

AS/NZS 1429.1
AS/NZS 1125
AS/NZS 3008

High Voltage Test (kV AC)	Partial discharge test (kV AC)		Impulse test Voltage (kV peak)
	200% to rated voltage	150% to rated voltage	
63	38	29	200

Compliance

- Conductor resistance AS/NZS 1125
- Insulation resistance AS/NZS 1429.1
- Short Circuit Temp. IEC 60986

OUR ACRREDITATION

ISO 9001 ISO 14001 ISO 45001

NABL ABS IRS

POLYCAB TRIPLEX MV AS/NZS 1429.1 19/33 (36) KV

MV Cable with Copper Conductor, XLPE Insulation, Copper Screen - Triplex

DIMENSIONSAL CHARACTERISTICS :

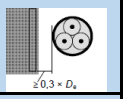
Product Code	No. of Single Cores	Core Cross sectional Area	Nominal Diameter		
			Over Screen	Each Phase	Overall
	No.	mm^2	mm	mm	mm
MVNZ13CXUAPH001T050SAXXXX	3	50	29.1	33.0	72.0
MVNZ13CXUAPH001T070SAXXXX	3	70	30.8	35.0	75.0
MVNZ13CXUAPH001T095SAXXXX	3	95	32.3	37.0	79.0
MVNZ13CXUAPH001T120SAXXXX	3	120	33.9	38.0	82.0
MVNZ13CXUAPH001T150SAXXXX	3	150	35.3	40.0	86.0
MVNZ13CXUAPH001T185SAXXXX	3	185	37.0	42.0	90.0
MVNZ13CXUAPH001T240SAXXXX	3	240	39.3	44.0	95.0
MVNZ13CXUAPH001T300SAXXXX	3	300	41.3	46.0	100.0
MVNZ13CXUAPH001T400SAXXXX	3	400	44.1	49.0	106.0
MVNZ13CXUAPH001T500SAXXXX	3	500	47.5	53.0	114.0

- Above mentioned parameters are based on 3kA/sec earth fault current capacity of copper screen

POLYCAB TRIPLEX MV AS/NZS 1429.1 19/33 (36) KV

MV Cable with Copper Conductor, XLPE Insulation, Copper Screen - Triplex

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	50	0.387	0.494	0.14	0.486	0.153	181	158	204
3 x 1	70	0.268	0.342	0.15	0.449	0.141	221	193	253
3 x 1	95	0.193	0.247	0.17	0.429	0.135	262	231	304
3 x 1	120	0.153	0.196	0.18	0.409	0.128	298	264	351
3 x 1	150	0.124	0.159	0.19	0.396	0.124	334	297	398
3 x 1	185	0.0991	0.127	0.21	0.382	0.120	377	336	455
3 x 1	240	0.0754	0.098	0.23	0.367	0.115	434	390	531
3 x 1	300	0.0601	0.079	0.25	0.354	0.111	489	441	606
3 x 1	400	0.047	0.063	0.27	0.341	0.107	553	501	696
3 x 1	500	0.0366	0.050	0.3	0.327	0.103	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

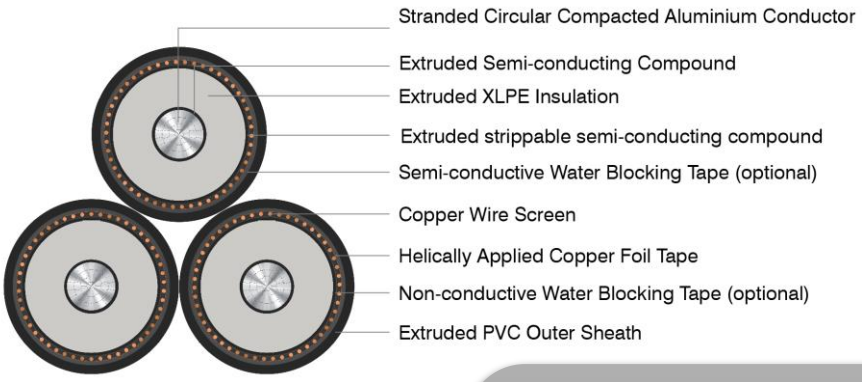
POLYCAB TRIPLEX MV AS/NZS 1429.1 19/33 (36) KV

MV Cable with Copper Conductor, XLPE Insulation, Copper Screen - Triplex

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	50	3.5	0.84	1.7	4.1	7.2
3 x 1	70	4.9	0.9	1.5	3.9	10.0
3 x 1	95	6.7	1.01	1.4	3.7	13.6
3 x 1	120	8.4	1.07	1.4	3.6	17.1
3 x 1	150	10.5	1.13	1.3	3.5	21.4
3 x 1	185	13.0	1.25	1.3	3.4	26.4
3 x 1	240	16.8	1.37	1.3	3.3	34.3
3 x 1	300	21.0	1.49	1.2	3.2	42.8
3 x 1	400	28.0	1.61	1.2	3.1	56.9
3 x 1	500	35.0	1.79	1.2	3.0	71.5

POLYCAB TRIPLEX MV AS/NZS 1429.1 19/33 (36) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen - Triplex



Salient Features

- Long life
- UV resistant
- Resistant to chemical exposure
- Resistant to water (AD7/AD8 with HDPE)
- Resistant to weather exposure

Application

POLYCAB MV 19/33 KV XLPE insulated with Aluminium conductor Triplex cable is suitable to use for power supply to wide networks i.e. Commercial, Industrial and Urban / Residential.

Voltage Rating

Nominal Voltage: 19/33 (36) 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

Construction

- Conductor: Stranded Compacted Circular aluminium 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 LSZH Outer sheath, and parameters will change accordingly)

Three Single Core Cables twisted and assembled to form triplex formation

Bending Radius:

Fixed Installation: 12D (PVC) / 15D (HDPE)
During Installation: 18D (PVC) / 25D (HDPE)
D is overall diameter of each cable

Standard and References:

AS/NZS 1429.1
AS/NZS 1125
AS/NZS 3008

High Voltage Test (kV AC)	Partial discharge test (kV AC)		Impulse test Voltage (kV peak)
	200% to rated voltage	150% to rated voltage	
63	38	29	200

Compliance

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

OUR ACRREDITATION

ISO 9001 ISO 14001 ISO 45001

NABL ABS IRS

POLYCAB TRIPLEX MV AS/NZS 1429.1 19/33 (36) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen - Triplex

DIMENSIONSAL CHARACTERISTICS:

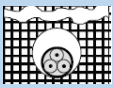
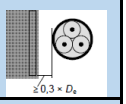
Product Code	No. of Single Cores	Core Cross sectional Area	Nominal Diameter		
			Over Screen	Each Phase	Overall
	No.	mm^2	mm	mm	mm
MVNZ13AXUAPH001T050SAXXXX	3	50	29.1	33.0	72.0
MVNZ13AXUAPH001T070SAXXXX	3	70	30.7	35.0	75.0
MVNZ13AXUAPH001T095SAXXXX	3	95	32.3	37.0	79.0
MVNZ13AXUAPH001T120SAXXXX	3	120	33.9	38.0	82.0
MVNZ13AXUAPH001T150SAXXXX	3	150	35.2	40.0	86.0
MVNZ13AXUAPH001T185SAXXXX	3	185	36.9	42.0	89.0
MVNZ13AXUAPH001T240SAXXXX	3	240	39.2	44.0	95.0
MVNZ13AXUAPH001T300SAXXXX	3	300	41.4	46.0	100.0
MVNZ13AXUAPH001T400SAXXXX	3	400	44.1	49.0	106.0
MVNZ13AXUAPH001T500SAXXXX	3	500	47.5	53.0	114.0

- Above mentioned parameters are based on 3kA/sec earth fault current capacity of copper screen

POLYCAB TRIPLEX MV AS/NZS 1429.1 19/33 (36) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen - Triplex

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 @ ambient 45˚C		
							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	50	0.641	0.822	0.14	0.486	0.153	140	122	158
3 x 1	70	0.443	0.568	0.15	0.450	0.141	171	150	196
3 x 1	95	0.32	0.411	0.17	0.429	0.135	203	179	236
3 x 1	120	0.253	0.325	0.18	0.409	0.128	232	205	273
3 x 1	150	0.206	0.265	0.19	0.397	0.125	260	231	309
3 x 1	185	0.164	0.211	0.21	0.383	0.120	294	262	355
3 x 1	240	0.125	0.161	0.23	0.367	0.115	340	305	415
3 x 1	300	0.1	0.129	0.25	0.354	0.111	384	346	475
3 x 1	400	0.0778	0.101	0.27	0.341	0.107	438	398	552
3 x 1	500	0.0605	0.080	0.3	0.327	0.103	505	460	646

*: 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

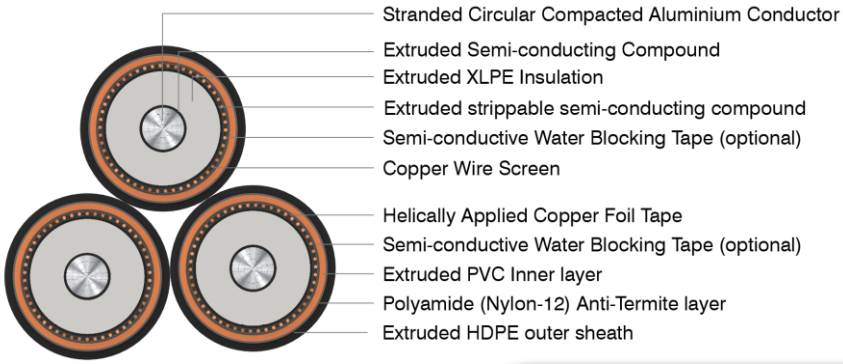
POLYCAB TRIPLEX MV AS/NZS 1429.1 19/33 (36) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen - Triplex

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 x 1	50	2.5	0.84	2.0	4.1	4.7
3 x 1	70	3.5	0.9	1.7	3.9	6.6
3 x 1	95	4.8	1.01	1.6	3.7	9.0
3 x 1	120	6.0	1.07	1.5	3.6	11.3
3 x 1	150	7.5	1.13	1.4	3.5	14.2
3 x 1	185	9.3	1.25	1.4	3.4	17.4
3 x 1	240	12.0	1.37	1.3	3.3	22.6
3 x 1	300	15.0	1.49	1.3	3.2	28.3
3 x 1	400	20.0	1.61	1.3	3.1	37.6
3 x 1	500	25.0	1.79	1.2	3.0	47.2

POLYCAB TRIPLEX ANTI-TERMITE MV AS/NZS 1429.1 19/33 (36) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen - Triplex



Salient Features

- Long life
- UV resistant
- Resistant to chemical exposure
- Resistant to water (AD7/AD8 with HDPE)
- Resistant to weather exposure
- Termite resistant

Application

POLYCAB MV 19/33 KV XLPE insulated with Aluminium conductor Triplex cable is suitable to use for power supply to wide networks i.e. Commercial, Industrial and Urban / Residential.

Voltage Rating

Nominal Voltage: 19/33 (36) 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

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- Conductor: Stranded Compacted Circular aluminium 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)

Composite sheath

- Inner layer : Extruded Polyvinyl Chloride, Colour: Orange
- Termite Protection: Polyamide (Nylon -12)
- Outer layer: HDPE (Black)

Three Single Core Cables twisted and assembled to form triplex formation

Bending Radius:

Fixed Installation: 20D
During Installation: 30D

D is diameter over nylon

Standard and References:

AS/NZS 1429.1
AS/NZS 1125
AS/NZS 3008

High Voltage Test (kV AC)	Partial discharge test (kV AC)		Impulse test Voltage (kV peak)
	200% to rated voltage	150% to rated voltage	
63	38	29	200

Compliance

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

OUR ACRREDITATION

ISO 9001 ISO 14001 ISO 45001

NABL ABS IRS

POLYCAB TRIPLEX ANTI-TERMITE MV AS/NZS 1429.1 19/33 (36) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen - Triplex

DIMENSIONSAL CHARACTERISTICS:

Product Code	No. of Single Cores	Core Cross sectional Area	Nominal Diameter		
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MVNZ13AXUAPH001T150SAXXXX	3	150	35.2	41.0	89.0
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MVNZ13AXUAPH001T240SAXXXX	3	240	39.2	45.0	97.0
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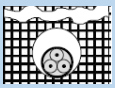
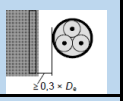
ELECTRICAL CHARACTERISTICS:

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 @ ambient 45˚C		
							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	50	0.641	0.82	0.14	0.497	0.156	140	122	158
3 x 1	70	0.443	0.57	0.15	0.460	0.145	171	150	196
3 x 1	95	0.32	0.41	0.17	0.438	0.138	203	179	236
3 x 1	120	0.253	0.32	0.18	0.417	0.131	232	205	273
3 x 1	150	0.206	0.26	0.19	0.404	0.127	260	231	309
3 x 1	185	0.164	0.21	0.21	0.390	0.122	294	262	355
3 x 1	240	0.125	0.16	0.23	0.373	0.117	340	305	415
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Current rating de-rating factors for other than 20®C ground temperature.

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POLYCAB TRIPLEX ANTI-TERMITE MV AS/NZS 1429.1 19/33 (36) KV

MV Cable with Aluminium Conductor, XLPE Insulation, Copper Screen - Triplex

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 x 1	50	2.5	0.84	1.98	4.1	4.7
3 x 1	70	3.5	0.9	1.73	3.9	6.6
3 x 1	95	4.75	1.01	1.57	3.7	9.0
3 x 1	120	6	1.07	1.49	3.6	11.3
3 x 1	150	7.5	1.13	1.43	3.5	14.2
3 x 1	185	9.25	1.25	1.37	3.4	17.4
3 x 1	240	12	1.37	1.32	3.3	22.6
3 x 1	300	15	1.49	1.29	3.2	28.3
3 x 1	400	20	1.61	1.26	3.1	37.6
3 x 1	500	25	1.79	1.24	3.0	47.2