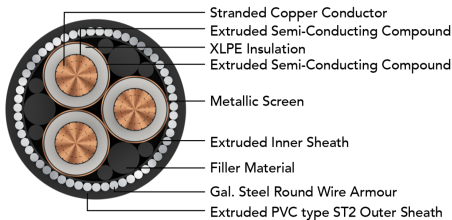


POLYCAB MV CU IEC 60502-2 18/30 KV

Medium Voltage Copper Armoured Cable, 18/30 (36) KV AC



Images not to scale. Follow table for dimensions

APPLICATION

POLYCAB medium voltage power cables are for power networks, underground, in cable ducting and also suitable for direct burial.

CHARACTERISTICS

Voltage Rating

Nominal Voltage: 18/30 kV

Operation Temperature

Max. operating temperature: +90°C

Max. Short Circuit Temperature: 250°C

CONSTRUCTION

- Conductor: Circular Compacted Copper conductor as per IEC 60228, class 2
- Conductor Screen: Extruded Semi-conductive compound
- Insulation: XLPE
- Non-Metallic Insulation Screen: Extruded Semi-conductive compound
- Metallic Insulation Screen: Copper tape screen
- Inner Sheath: Extruded Polyvinyl Chloride
- Armour:

Single Core: Aluminium Round Wire Armoured (AWA)

Multi Core: Galvanised Steel Round Wire (SWA)

- Outer Sheath: Extruded Polyvinyl Chloride, Colour: Black

Bending Radius:

Fixed Installation: 12D

D is overall diameter of cable

Test Voltage

63kV AC 50 Hz

Impulse Test Voltage

Peak 170kV AC

OUTSTANDING FEATURES

- Flame retardant
- High life
- UV resistant
- Oil resistant

STANDARD FOLLOWS

IEC 60228

IEC 60502-2

BS 6622

COMPLIANCE

- Conductor resistance IEC 60228
- Insulation resistance IEC 60502-2
- Flammability test IEC 60332-1-2
- Partial Discharge test IEC 60502-2

OUR ACCREDITATIONS



APPROVAL



POLYCAB MV CU IEC 60502-2 18/30 KV
Medium Voltage Copper Armoured Cable, 18/30 (36) KV AC



DIMENSIONS AND WEIGHTS:

Product Code	No. of Cores	Core Cross sectional Area	Nominal Diameter			Weight (Approx.)
			Under armour	Over armour	Overall	
			mm	mm	mm	
MVIE19CXA WY2001C050SA001P	1	50	28.8	32.8	37.0	1.1
MVIE19CXA WY2001C070SA001P	1	70	30.4	34.4	39.0	2.2
MVIE19CXA WY2001C095SA001P	1	95	32.2	36.2	41.0	2.2
MVIE19CXA WY2001C120SA001P	1	120	33.8	37.8	42.0	2.2
MVIE19CXA WY2001C150SA001P	1	150	35.7	40.7	46.0	3.3
MVIE19CXA WY2001C185SA001P	1	185	37.4	42.4	47.0	3.3
MVIE19CXA WY2001C240SA001P	1	240	39.8	44.8	50.0	4.4
MVIE19CXA WY2001C300SA001P	1	300	42.5	47.5	53.0	5.5
MVIE19CXA WY2001C400SA001P	1	400	45.7	50.7	56.0	6.6
MVIE19CXA WY2001C500SA001P	1	500	49.2	54.2	60.0	7.7
MVIE19CXA WY2001C630SA001P	1	630	52.6	57.6	63.0	8.8
MVIE19CXA WY2001C800SA001P	1	800	56.9	61.9	68.0	10.0
MVIE19CXA WY2001C01KSA001P	1	1000	61.4	66.4	73.0	11.1
MVIE19CXS WY2003C050SA001P	3	50	60.8	67.1	74.0	8.8
MVIE19CXS WY2003C070SA001P	3	70	64.3	70.6	78.0	10.0
MVIE19CXS WY2003C095SA001P	3	95	68.3	74.6	82.0	11.1
MVIE19CXS WY2003C120SA001P	3	120	71.9	78.2	86.0	12.2
MVIE19CXS WY2003C150SA001P	3	150	75.6	81.9	90.0	14.4
MVIE19CXS WY2003C185SA001P	3	185	79.4	85.7	94.0	15.5
MVIE19CXS WY2003C240SA001P	3	240	85.0	91.3	100.0	18.8
MVIE19CXS WY2003C300SA001P	3	300	90.6	96.9	106.0	22.2
MVIE19CXS WY2003C400SA001P	3	400	97.7	104.0	113.0	26.6

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
							Flat	Trefoil	Flat	Trefoil	Flat
No.	mm ²	Ω/km	Ω/km	μF/km	mH/km	Ω/km	Amps				
1	50	0.387	0.494	0.13	0.47	0.15	203	196	188	186	243
1	70	0.268	0.342	0.15	0.45	0.14	246	239	229	227	303
1	95	0.193	0.247	0.16	0.43	0.14	293	285	274	271	369
1	120	0.153	0.196	0.18	0.41	0.13	332	323	311	308	426
1	150	0.124	0.159	0.19	0.40	0.13	366	361	347	343	481
1	185	0.0991	0.127	0.21	0.39	0.12	410	406	391	387	550
1	240	0.0754	0.097	0.23	0.37	0.12	470	469	453	447	647
1	300	0.0601	0.078	0.25	0.36	0.11	524	526	510	504	739
1	400	0.0470	0.062	0.28	0.35	0.11	572	590	571	564	837

POLYCAB MV CU IEC 60502-2 18/30 KV **Medium Voltage Copper Armoured Cable, 18/30 (36) KV AC**



1	500	0.0366	0.052	0.32	0.28	0.09	660	655	640	635	970
1	630	0.0283	0.042	0.35	0.27	0.09	735	730	715	710	1110
1	800	0.0221	0.036	0.39	0.26	0.08	770	820	800	790	1260
1	1000	0.0176	0.032	0.42	0.25	0.08	825	885	865	855	1420

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 In ground at 20°C	In Ar
No.	mm ²	Ω/km	Ω/km	μF/km	mH/km	Ω/km		Ar
3	50	0.387	0.494	0.13	0.41	0.13	181	
3	70	0.268	0.342	0.15	0.39	0.12	220	
3	95	0.193	0.247	0.16	0.37	0.12	263	
3	120	0.153	0.196	0.18	0.36	0.11	298	
3	150	0.124	0.159	0.19	0.35	0.11	332	
3	185	0.0991	0.127	0.21	0.34	0.11	374	
3	240	0.0754	0.097	0.23	0.32	0.10	431	
3	300	0.0601	0.078	0.25	0.31	0.10	482	
3	400	0.0470	0.062	0.28	0.30	0.09	541	

Maximum conductor temperature
Ambient air temperature
Ground temperature
Depth of laying
Thermal resistivity of soil
Thermal resistivity of earthenware ducts

90°C
30°C
20°C
0.8 m
1.5 K.m/W
1.2 K.m/W

De-Rating Factor

Current rating de-rating factors for other than 30°C ambient air temperature.

Air Temperature	20	25	35	40	45	50	55	60
De-rating factor	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.

Ground Temperature	10	15	25	30	35	40	45	50
De-rating factor	1.07	1.04	0.96	0.93	0.89	0.85	0.8	0.76