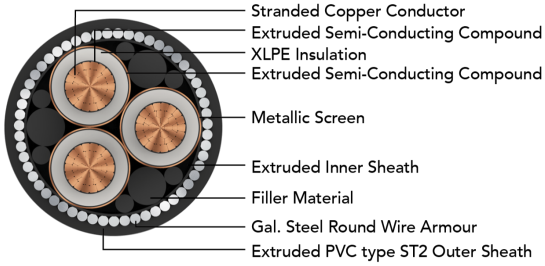
POLYCAB MV CU IEC 60502-2 12/20 KV
Medium Voltage Copper Armoured Cable, 12/20 (24) KV AC



Images not to scale. Follow table for dimensions

APPLICATION

POLYCAB MV 12/20 KV XLPE insulated with copper conductor single & multi core cable is suitable to use for power networks, underground and in cable ducting.

CHARACTERISTICS

Voltage Rating
Nominal Voltage: 12/20 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
42kV AC 50 Hz

Impulse Test Voltage
Peak 125kV 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

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DIMENSIONS AND WEIGHTS:

Product Code	No. of Cores	Core Cross sectional Area	Nominal Diameter			Weight
			Under armour	Over armour	Overall	(Approx.)
	No.	mm^2	mm	mm	mm	Kg/Km
MVIE20CXAWY2001C050SA001P	1	50	23.8	27.0	31.0	1500
MVIE20CXAWY2001C070SA001P	1	70	25.4	29.4	33.0	1800
MVIE20CXAWY2001C095SA001P	1	95	27.2	31.2	35.0	2100
MVIE20CXAWY2001C120SA001P	1	120	28.8	32.8	37.0	2400
MVIE20CXAWY2001C150SA001P	1	150	30.5	34.5	39.0	2800
MVIE20CXAWY2001C185SA001P	1	185	32.2	36.2	41.0	3200
MVIE20CXAWY2001C240SA001P	1	240	34.6	38.6	43.0	3800
MVIE20CXAWY2001C300SA001P	1	300	37.3	42.3	47.0	4700
MVIE20CXAWY2001C400SA001P	1	400	40.5	45.5	51.0	5700
MVIE20CXAWY2001C500SA001P	1	500	44.0	49.0	54.0	6950
MVIE20CXAWY2001C630SA001P	1	630	47.4	52.4	58.0	8300
MVIE20CXAWY2001C800SA001P	1	800	51.7	56.7	63.0	10100
MVIE20CXAWY2001C01KSA001P	1	1000	56.2	61.2	67.0	12200
MVIE20CXSWY2003C050SA001P	3	50	49.6	54.6	60.0	6350
MVIE20CXSWY2003C070SA001P	3	70	53.1	58.1	64.0	7350
MVIE20CXSWY2003C095SA001P	3	95	57.1	62.1	69.0	8550
MVIE20CXSWY2003C120SA001P	3	120	60.5	66.8	73.0	10500
MVIE20CXSWY2003C150SA001P	3	150	64.4	70.7	78.0	11900
MVIE20CXSWY2003C185SA001P	3	185	68.2	74.5	82.0	13450
MVIE20CXSWY2003C240SA001P	3	240	73.8	80.1	88.0	15800
MVIE20CXSWY2003C300SA001P	3	300	79.2	85.5	93.0	18400
MVIE20CXSWY2003C400SA001P	3	400	86.5	92.8	101.0	22050

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POLYCAB
IDEAS. CONNECTED.

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	0.387	0.494	0.17	0.44	0.14	203	196	188	186	243	238
1	70	0.268	0.342	0.19	0.42	0.13	246	239	229	227	303	296
1	95	0.193	0.247	0.21	0.40	0.13	293	285	274	271	369	361
1	120	0.153	0.196	0.23	0.38	0.12	332	323	311	308	426	417
1	150	0.124	0.159	0.25	0.37	0.12	366	361	347	343	481	473
1	185	0.0991	0.127	0.27	0.36	0.11	410	406	391	387	550	543
1	240	0.0754	0.097	0.30	0.34	0.11	470	469	453	447	647	641
1	300	0.0601	0.078	0.33	0.34	0.11	524	526	510	504	739	735
1	400	0.0470	0.062	0.37	0.33	0.10	572	590	571	564	837	845
1	500	0.0366	0.052	0.44	0.26	0.08	660	655	640	635	970	960
1	630	0.0283	0.042	0.48	0.26	0.08	735	730	715	710	1110	1100
1	800	0.0221	0.036	0.53	0.25	0.08	770	820	800	790	1260	1250
1	1000	0.0176	0.032	0.59	0.24	0.07	825	885	865	855	1420	1410

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
No.	mm^2	Ω/km	Ω/km	µF/km	mH/km	Ω/km	Amps		
3	50	0.387	0.494	0.17	0.37	0.12	181	158	205
3	70	0.268	0.342	0.19	0.35	0.11	220	194	253
3	95	0.193	0.247	0.21	0.34	0.11	263	232	307
3	120	0.153	0.196	0.23	0.32	0.10	298	264	352
3	150	0.124	0.159	0.25	0.31	0.10	332	296	397
3	185	0.0991	0.127	0.27	0.30	0.10	374	335	453
3	240	0.0754	0.097	0.30	0.29	0.09	431	387	529

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							In ground at 20°C	In Ducts	In air at 30°C
No.	mm^2	Ω/km	Ω/km	µF/km	mH/km	Ω/km	Amps		
3	300	0.0601	0.078	0.33	0.28	0.09	482	435	599
3	400	0.0470	0.062	0.37	0.27	0.09	541	492	683

Maximum conductor temperature	90°C
Ambient air temperature	30°C
Ground temperature	20°C
Depth of laying	0.8 m
Thermal resistivity of soil	1.5 K.m/W
Thermal resistivity of earthenware ducts	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