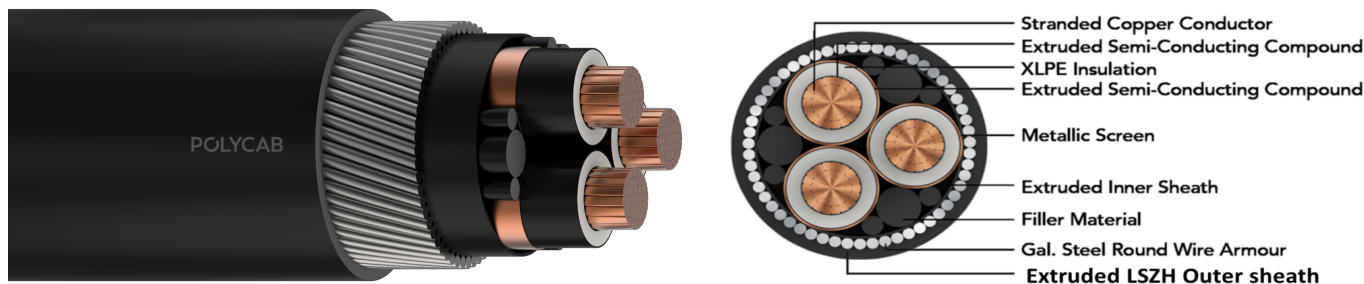


POLYCAB MV CU BS 7835 19/33 KV

Medium Voltage Armoured Cable, 19/33 (36) KV AC



Images not to scale. Follow table for dimensions

APPLICATION

POLYCAB MV CU BS 7835 19/33 KV XLPE insulated with copper conductor single & multi core cable is designed for low smoke & low halogen evolution and this suitable to use for power networks, underground and in cable ducting.

CHARACTERISTICS

Voltage Rating

Nominal Voltage: 19/33 (36) kV

Operation Temperature

Max. operating temperature: +90°C

Max. Short Circuit Temperature: 250°C

Bending Radius:

Single core cable

Fixed Installation: 15 x Overall diameter

Three core cable

Fixed Installation: 12 x Overall diameter

CONSTRUCTION

- Conductor: Circular Compacted Copper conductor as per BS EN/IEC 60228, class 2
- Conductor Screen: Extruded Semi-conductive compound
- Insulation: XLPE as per BS 7655-1.3 or EPR as per BS 7655-1.2
- Non-Metallic Insulation Screen: Extruded Semi-conductive compound
- Metallic Insulation Screen: Copper tape screen
- Inner Covering: Extruded LSZH (Low Smoke Zero Halogen) compound
- Armour:
 - Single Core: Aluminium Round Wire Armoured (AWA)
 - Multi Core: Galvanised Steel Round Wire Armoured (SWA)
- Outer Sheath: Extruded LSZH compound as per BS 7655-6.1, Colour: Black

Test Voltage

76kV AC

Impulse Test Voltage

Peak 194kV AC

OUTSTANDING FEATURES

- Flame retardant
- High life
- UV resistant
- Oil resistant
- Low smoke emission

STANDARD FOLLOWS

BS EN/IEC 60228

BS 7655-1.3/1.2

BS 7655-6.1

BS 7835

COMPLIANCE

Conductor resistance BS EN/IEC 60228

Insulation resistance BS 7835

Flame Retardant test BS EN/IEC 60332-1-2

Partial Discharge test BS 7835

Smoke Emission test BS EN/IEC 61034-2

OUR ACCREDITATIONS



APPROVAL



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WEIGHT & DIMENSIONAL DATA :

Product Code	No. of Cores	Nominal Cross sectional Area mm ²	Nominal Diameter			Weight (Approx.) Kg/Km
			Under armour mm	Over armour mm	Overall mm	
MVBS20CXAWLS001C070S	1	70	30.4	34.4	39.0	2200
MVBS20CXAWLS001C095S	1	95	32.2	36.2	41.0	2550
MVBS20CXAWLS001C120S	1	120	33.8	37.8	42.0	2900
MVBS20CXAWLS001C150S	1	150	35.5	39.5	44.0	3250
MVBS20CXAWLS001C185S	1	185	37.2	42.2	47.0	3850
MVBS20CXAWLS001C240S	1	240	40.0	45.0	50.0	4600
MVBS20CXAWLS001C300S	1	300	42.5	47.5	53.0	5350
MVBS20CXAWLS001C400S	1	400	45.7	50.7	56.0	6450
MVBS20CXAWLS001C500S	1	500	49.0	54.0	60.0	7650
MVBS20CXAWLS001C630S	1	630	52.8	57.8	64.0	9150
MVBS20CXAWLS001C800S	1	800	56.9	61.9	68.0	11000
MVBS20CXAWLS001C01KS	1	1000	61.2	66.2	72.0	13150
MVBS20CXSWLS003C070S	3	70	64.3	70.6	77.0	10150
MVBS20CXSWLS003C095S	3	95	68.1	74.4	81.0	11400
MVBS20CXSWLS003C120S	3	120	71.5	77.8	85.0	12650
MVBS20CXSWLS003C150S	3	150	75.2	81.5	89.0	14100
MVBS20CXSWLS003C185S	3	185	78.8	85.1	93.0	15700
MVBS20CXSWLS003C240S	3	240	84.2	90.5	99.0	18100
MVBS20CXSWLS003C300S	3	300	90.0	96.3	105.0	21000
MVBS20CXSWLS003C400S	3	400	96.9	103.2	112.0	24800
MVBS20CXSWLS003C500S	3	500	104.0	110.3	120.0	29050
MVBS20CXSWLS003C630S	3	630	111.3	117.6	127.0	33900

Electrical Characteristics:

No. of Cores	Nominal Cross sectional Area	Max. DC Resistance at 20°C	Max. AC Resistance at 90°C	Short circuit current rating	Capacitance (Approx.)	Inductance (Approx.)	Reactance (Approx.)
	mm ²	Ω/km	Ω/km	kA/s	μF/km	mH/km	Ω/km
1	70	0.268	0.342	10.02	0.15	0.45	0.14
1	95	0.193	0.247	13.59	0.16	0.43	0.13

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No. of Cores	Nominal Cross sectional Area mm ²	Max. DC Resistance at 20°C Ω/km	Max. AC Resistance at 90°C Ω/km	Short circuit current rating kA/s	Capacitance (Approx.) μF/km	Inductance (Approx.) mH/km	Reactance (Approx.) Ω/km
1	120	0.153	0.196	17.17	0.18	0.41	0.13
1	150	0.124	0.159	21.46	0.19	0.40	0.12
1	185	0.0991	0.128	26.47	0.21	0.39	0.12
1	240	0.0754	0.098	34.34	0.23	0.37	0.12
1	300	0.0601	0.080	42.93	0.25	0.36	0.11
1	400	0.047	0.064	57.23	0.28	0.35	0.11
1	500	0.0366	0.052	71.54	0.321	0.283	0.089
1	630	0.0283	0.042	90.14	0.350	0.274	0.086
1	800	0.0221	0.036	10.02	0.386	0.263	0.083
1	1000	0.0176	0.032	13.59	0.424	0.254	0.080
3	70	0.268	0.342	10.02	0.15	0.39	0.12
3	95	0.193	0.247	13.59	0.16	0.37	0.12
3	120	0.153	0.196	17.17	0.18	0.36	0.11
3	150	0.124	0.159	21.46	0.19	0.35	0.11
3	185	0.0991	0.128	26.47	0.21	0.34	0.11
3	240	0.0754	0.098	34.34	0.23	0.32	0.10
3	300	0.0601	0.080	42.93	0.25	0.31	0.10
3	400	0.047	0.064	57.23	0.28	0.30	0.09
3	500	0.0366	0.052	71.54	0.31	0.289	0.091
3	630	0.0283	0.042	90.14	0.33	0.281	0.088

Current Carrying Capacity

No. of core	Nominal cross sectional area mm ²	Continuous Current Rating					
		Ground at 20°C		In single-way ducts		In air	
		Trefoil Amp.	Flat spaced Amp.	Trefoil ducts Amp.	Flat touching Amp.	Trefoil Amp.	Flat touching Amp.
1	70	239	246	227	229	296	303
1	95	285	293	271	274	361	369

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No. of core	Nominal cross sectional area mm ²	Continuous Current Rating					
		Ground at 20°C		In single-way ducts		In air	
		Trefoil Amp.	Flat spaced Amp.	Trefoil ducts Amp.	Flat touching Amp.	Trefoil Amp.	Flat touching Amp.
1	120	323	332	308	311	417	426
1	150	361	366	343	347	473	481
1	185	406	410	387	391	543	550
1	240	469	470	447	453	641	647
1	300	526	524	504	510	735	739
1	400	590	572	564	571	845	837
1	500	581	521	499	424	908	828
1	630	633	554	541	449	1012	905
1	800	679	583	594	483	1115	979
1	1000	694	596	605	489	1181	1032

No. of core	Nominal cross sectional area mm ²	Continuous Current Rating		
		In ground at 20°C		In air
		Amp.	Amp.	Amp.
3	70	220	194	253
3	95	263	232	307
3	120	298	264	352
3	150	332	296	397
3	185	374	335	453
3	240	431	387	529
3	300	482	435	599
3	400	541	492	683
3	500	608	548	820

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

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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

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