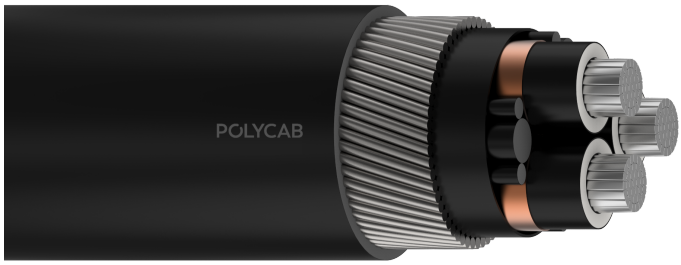
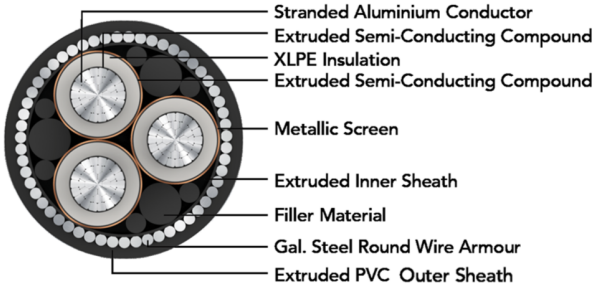
POLYCAB MV AL BS 6622 12.7/22 KV
Medium Voltage Armoured Cable, 12.7/22 (24) KV AC





Images not to scale. Follow table for dimensions

APPLICATION
POLYCAB MV AL BS 6622 12.7/22 KV XLPE insulated with aluminium conductor single & multi core cable is suitable to use for power networks, underground and in cable ducting.

CHARACTERISTICS
Voltage Rating
Nominal Voltage: 12.7/22 (24) 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 aluminium 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 Polyvinyl Chloride or Halogen free compound
• Armour:
Single Core: Aluminium Round Wire Armoured (AWA)
Multi Core: Galvanised Steel Round Wire Armoured (SWA)
• Outer Sheath: Extruded Polyvinyl Chloride as per BS 7655-4.2 or Medium density polyethylene as per BS 7655-10.1, Colour: Black

Test Voltage
51kV AC

Impulse Test Voltage
Peak 144kV AC

OUTSTANDING FEATURES
• Flame retardant
• High life
• UV resistant
• Oil resistant

STANDARD FOLLOWS
BS EN/IEC 60228
BS 7655-1.3/1.2
BS 7655-4.2/10.1
BS 6622

COMPLIANCE
Conductor resistance BS EN/IEC 60228
Insulation resistance BS 6622
Flame Retardant test EN/IEC 60332-1-2
Partial Discharge test BS 6622

OUR ACCREDITATIONS
NABL

APPROVAL
FQC CE CPR COMPLIANT

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POLYCAB
IDEAS. CONNECTED.

WEIGHT & DIMENSION DATA :

Product Code	No. of Cores	Nominal Cross sectional Area	Nominal Diameter			Weight (Approx.)
			Under armour	Over armour	Overall	
		mm^2	mm	mm	mm	Kg/Km
MVBS19AXAWY2001C070S	1	70	25.0	28.2	32.0	1250
MVBS19AXAWY2001C095S	1	95	26.8	30.8	35.0	1500
MVBS19AXAWY2001C120S	1	120	28.8	32.8	37.0	1700
MVBS19AXAWY2001C150S	1	150	30.5	34.5	39.0	1850
MVBS19AXAWY2001C185S	1	185	32.2	36.2	41.0	2050
MVBS19AXAWY2001C240S	1	240	34.6	38.6	43.0	2350
MVBS19AXAWY2001C300S	1	300	37.1	41.1	46.0	2650
MVBS19AXAWY2001C400S	1	400	40.7	45.7	51.0	3300
MVBS19AXAWY2001C500S	1	500	44.0	49.0	54.0	3850
MVBS19AXAWY2001C630S	1	630	47.4	52.4	58.0	4400
MVBS19AXAWY2001C800S	1	800	51.9	56.9	63.0	5200
MVBS19AXAWY2001C01KS	1	1000	56.2	61.2	67.0	6100
MVBS19AXSWY2003C070S	3	70	53.1	58.1	64.0	6000
MVBS19AXSWY2003C095S	3	95	56.9	61.9	68.0	6700
MVBS19AXSWY2003C120S	3	120	60.3	65.3	72.0	7350
MVBS19AXSWY2003C150S	3	150	64.4	70.7	78.0	9050
MVBS19AXSWY2003C185S	3	185	68.0	74.3	81.0	9850
MVBS19AXSWY2003C240S	3	240	73.4	79.7	87.0	11150
MVBS19AXSWY2003C300S	3	300	78.8	85.1	93.0	12500
MVBS19AXSWY2003C400S	3	400	85.7	92.0	100.0	14400
MVBS19AXAWY2003C500S	3	500	93.2	99.5	108.0	16550
MVBS19AXAWY2003C630S	3	630	100.5	106.8	116.0	18950

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	0.443	0.568	6.61	0.19	0.41	0.13
1	95	0.320	0.411	8.98	0.21	0.40	0.13
1	120	0.253	0.325	11.34	0.23	0.38	0.12

1	150	0.206	0.265	14.17	0.25	0.37	0.12
1	185	0.164	0.211	17.48	0.27	0.36	0.11
1	240	0.125	0.161	22.68	0.30	0.34	0.11
1	300	0.100	0.129	28.35	0.33	0.33	0.10
1	400	0.0778	0.101	37.79	0.37	0.33	0.10
1	500	0.0605	0.080	47.24	0.439	0.264	0.083
1	630	0.0469	0.063	59.52	0.481	0.255	0.080
1	800	0.0367	0.051	75.59	0.533	0.247	0.078
1	1000	0.0291	0.042	94.48	0.588	0.239	0.075
3	70	0.443	0.568	6.61	0.19	0.35	0.11
3	95	0.320	0.411	8.98	0.21	0.34	0.11
3	120	0.253	0.325	11.34	0.23	0.32	0.10
3	150	0.206	0.265	14.17	0.25	0.31	0.10
3	185	0.164	0.211	17.48	0.27	0.30	0.10
3	240	0.125	0.161	22.68	0.30	0.29	0.09
3	300	0.100	0.129	28.35	0.33	0.28	0.09
3	400	0.0778	0.101	37.79	0.37	0.27	0.09
3	500	0.0605	0.080	47.24	0.41	0.27	0.08
3	630	0.0469	0.063	59.52	0.45	0.26	0.08

Current Carrying Capacity :

No. of core	Nominal cross sectional area	Continues Current Rating					
		Buried direct in the ground		In single-way ducts		In air	
		Trefoil	Flat spaced	Trefoil ducts	Flat touching	Trefoil	Flat touching
	mm²	Amp.	Amp.	Amp.	Amp.	Amp.	Amp.
1	70	186	192	176	178	230	236
1	95	221	229	210	213	280	287
1	120	252	260	240	242	324	332
1	150	281	288	267	271	368	376
1	185	317	324	303	307	424	432
1	240	367	373	351	356	502	511
1	300	414	419	397	402	577	586
1	400	470	466	451	457	673	676
1	500	483	450	415	367	746	705
1	630	536	489	458	396	847	787

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No. of core	Nominal cross sectional area	Continues Current Rating					
		Buried direct in the ground		In single-way ducts		In air	
		Trefoil	Flat spaced	Trefoil ducts	Flat touching	Trefoil	Flat touching
	mm²	Amp.	Amp.	Amp.	Amp.	Amp.	Amp.
1	800	586	525	513	434	953	868
1	1000	618	549	538	450	1038	936

No. of core	Nominal cross sectional area	Continues current capacity		
		In ground at 20°C	In a buried duct	In air
	mm²	Amp.	Amp.	Amp.
3	70	171	150	196
3	95	204	180	238
3	120	232	206	274
3	150	259	231	309
3	185	293	262	354
3	240	338	304	415
3	300	380	343	472
3	400	432	393	545
3	500	490	441	658

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