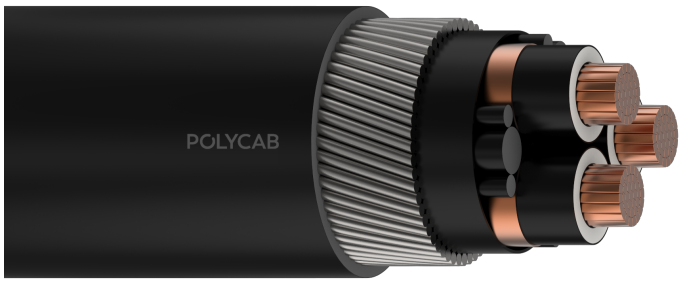
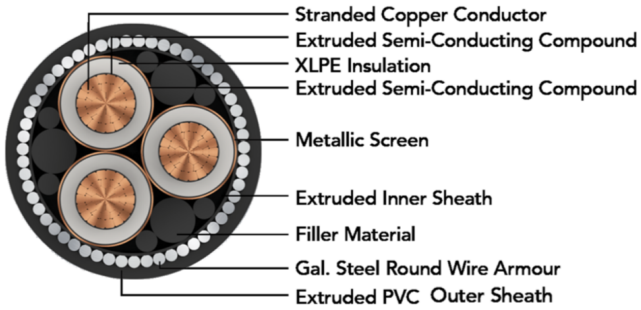
POLYCAB MV CU BS 6622 19/33 KV
Medium Voltage Armoured Cable, 19/33 (36) KV AC





Images not to scale. Follow table for dimensions

APPLICATION
POLYCAB MV CU BS 6622 19/33 KV XLPE insulated with copper conductor single & multi core cable is suitable to use for power networks, underground and in cable ducting.

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

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

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

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 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
76kV AC

Impulse Test Voltage
Peak 194kV AC

APPROVAL

POLYCAB MV CU BS 6622 19/33 KV
Medium Voltage Armoured Cable, 19/33 (36) KV AC

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
MVBS20CXAWY2001C070S	1	70	30.4	34.4	39.0	2200
MVBS20CXAWY2001C095S	1	95	32.2	36.2	41.0	2500
MVBS20CXAWY2001C120S	1	120	33.8	37.8	42.0	2850
MVBS20CXAWY2001C150S	1	150	35.5	39.5	44.0	3250
MVBS20CXAWY2001C185S	1	185	37.2	42.2	47.0	3800
MVBS20CXAWY2001C240S	1	240	40.0	45.0	50.0	4550
MVBS20CXAWY2001C300S	1	300	42.5	47.5	53.0	5300
MVBS20CXAWY2001C400S	1	400	45.7	50.7	56.0	6400
MVBS20CXAWY2001C500S	1	500	49.0	54.0	60.0	7600
MVBS20CXAWY2001C630S	1	630	52.8	57.8	64.0	9050
MVBS20CXAWY2001C800S	1	800	56.9	61.9	68.0	10900
MVBS20CXAWY2001C01KS	1	1000	61.2	66.2	72.0	13050
MVBS20CXSWY2003C070S	3	70	64.3	70.6	77.0	10000
MVBS20CXSWY2003C095S	3	95	68.1	74.4	81.0	11250
MVBS20CXSWY2003C120S	3	120	71.5	77.8	85.0	12550
MVBS20CXSWY2003C150S	3	150	75.2	81.5	89.0	13950
MVBS20CXSWY2003C185S	3	185	78.8	85.1	93.0	15550
MVBS20CXSWY2003C240S	3	240	84.2	90.5	99.0	17950
MVBS20CXSWY2003C300S	3	300	90.0	96.3	105.0	20800
MVBS20CXSWY2003C400S	3	400	96.9	103.2	112.0	24550
MVBS20CXSWY2003C500S	3	500	104.0	110.3	120.0	28800
MVBS20CXSWY2003C630S	3	630	111.3	117.6	127.0	33650

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

POLYCAB MV CU BS 6622 19/33 KV
Medium Voltage Armoured Cable, 19/33 (36) KV AC

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.)
	mm²	Ω/km	Ω/km	kA/s	µF/km	mH/km	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	Continuous Current Rating					
		Ground at 20°C		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	239	246	227	229	296	303

POLYCAB MV CU BS 6622 19/33 KV
Medium Voltage Armoured Cable, 19/33 (36) KV AC

No. of core	Nominal cross sectional area	Continuous Current Rating					
		Ground at 20°C		In single-way ducts		In air	
		Trefoil	Flat spaced	Trefoil ducts	Flat touching	Trefoil	Flat touching
	mm²	Amp.	Amp.	Amp.	Amp.	Amp.	Amp.
1	95	285	293	271	274	361	369
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	Continuous Current Rating		
		In ground at 20°C	In a buried duct	In air
	mm²	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

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