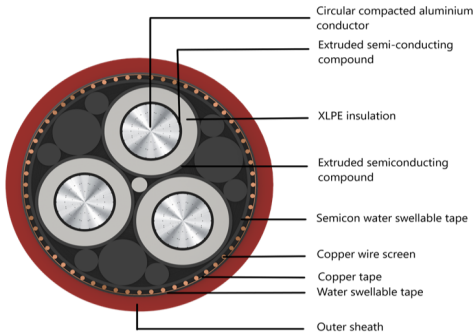
POLYCAB MV AL BS 7870-4-20 6.35/11 KV
Medium Voltage Copper wire screened Cable, 6.35/11 (12) KV AC



Images not to scale. Follow table for dimensions

APPLICATION
POLYCAB MV AL BS 7870-4-20 6.35/11 KV compacted aluminium conductor, XLPE insulated, copper wire screened three core cable is designed for power networks, underground direct buried or in cable ducting.

CHARACTERISTICS
Voltage Rating
Nominal Voltage: 6.35/11 (12) kV

Operation Temperature
Max. operating temperature: +90°C
Max. Short Circuit Temperature: 250°C

Bending Radius:
Fixed Installation: 15 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 7870-1
• EPR can be provided on demand as per BS 7870-1
• Non-Metallic Insulation Screen: Extruded Semi-conductive compound (Bonded or Cold strippable)
• Inner covering: Semicon water swellable tape
• Collective Metallic Screen: Copper wire & Copper tape screen
• Separation tape: Plain water swellable tape
• Outer Sheath: Extruded medium density polyethylene or Low smoke zero halogen compound as per BS 7870-1, Colour: Red

Core identification
Black with white numbering

Test Voltage
25.5kV AC

Impulse Test Voltage
Peak 95kV AC

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

STANDARD FOLLOWS
BS EN/IEC 60228
BS 7870-1
BS 7870-4-20

COMPLIANCE
Conductor resistance BS EN/IEC 60228
Insulation resistance BS 7870-4-20
Flame Retardant test BS EN/IEC 60332-1-2
Partial Discharge test BS 7870-4-20
Smoke Emission test BS EN/IEC 61034-2

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WEIGHT & DIMENSION DATA :

	No. of Cores	Nominal Cross-sectional Area	Nominal area of metallic screen	Overall diameter (Approx.)	Weight (Approx.)
		mm^2	mm^2	mm	Kg/Km
MVBS22AXUAPM003C070S	3	70	35	51.8	2750
MVBS22AXUAPM003C095S	3	95	35	55.5	3200
MVBS22AXUAPM003C120S	3	120	35	58.8	3550
MVBS22AXUAPM003C150S	3	150	35	62.4	4000
MVBS22AXUAPM003C185S	3	185	35	65.9	4500
MVBS22AXUAPM003C240S	3	240	35	71.1	5300
MVBS22AXUAPM003C300S	3	300	35	76.2	6100

Electrical Characteristics:

Nominal Cross Sectional Area	Max. DC Resistance at 20°C	Max. AC Resistance at 90°C	Short circuit current rating of conductor	Short circuit current rating of metallic screen	Capacitance (Approx.)	Inductance (Approx.)	Reactance (Approx.)
mm^2	Ω/km	Ω/km	kA/s	kA/s	µF/km	mH/km	Ω/km
70	0.443	0.565	6.61	4.5	0.29	0.33	0.10
95	0.32	0.408	8.98	4.5	0.32	0.32	0.10
120	0.253	0.323	11.34	4.5	0.35	0.30	0.09
150	0.206	0.263	14.17	4.5	0.38	0.29	0.09
185	0.164	0.210	17.48	4.5	0.41	0.29	0.09
240	0.125	0.160	22.68	4.5	0.46	0.27	0.09
300	0.1	0.129	28.35	4.5	0.51	0.27	0.08

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Current Carrying Capacity

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	503	443	649

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
Note: The table is in accordance with the IEC 60502-2

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