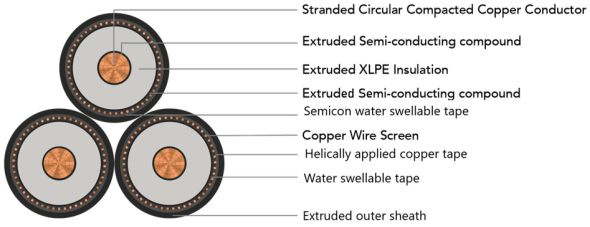
POLYCAB MV CU BS 7870-4-10 12.7/22 KV Triplex
Medium Voltage Copper wire screened Cable, 12.7/22 (24) KV AC



Images not to scale. Follow table for dimensions

APPLICATION
POLYCAB MV CU BS 7870-4-10 12.7/22 KV compacted copper conductor XLPE insulated, copper wire screened cable generally confirming to BS 7870-4-10. These cables are designed for power networks, underground direct buried or 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:
Fixed Installation: 20 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 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)
• Separation tape: Semicon water swellable tape
• Metallic Insulation 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: 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 7870-1
BS 7870-4-10

COMPLIANCE
Conductor resistance BS EN/IEC 60228
Insulation resistance BS 7870-4-10
Flame Retardant test BS EN/IEC 60332-1-2
Partial Discharge test BS 7870-4-10
Smoke Emission test BS EN/IEC 61034-2

OUR ACCREDITATIONS
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POLYCAB
IDEAS. CONNECTED.

WEIGHT & DIMENSION DATA :

Product Code	No. of Cores	Nominal Cross sectional Area	Nominal area of metallic screen	Overall diameter (Approx.)	Weight (Approx.)
		mm^2	mm^2	mm	Kg/Km
MVBS19CXAWPM001C070S	3 x 1 (triplex)	70	35	63.3	4050
MVBS19CXAWPM001C095S	3 x 1 (triplex)	95	35	66.8	5100
MVBS19CXAWPM001C120S	3 x 1 (triplex)	120	35	70.2	6000
MVBS19CXAWPM001C150S	3 x 1 (triplex)	150	35	73.7	6900
MVBS19CXAWPM001C185S	3 x 1 (triplex)	185	35	77.4	8100
MVBS19CXAWPM001C240S	3 x 1 (triplex)	240	35	82.6	9900
MVBS19CXAWPM001C300S	3 x 1 (triplex)	300	35	87.5	11850
MVBS19CXAWPM001C400S	3 x 1 (triplex)	400	35	94.2	14700
MVBS19CXAWPM001C500S	3 x 1 (triplex)	500	35	101.1	18000
MVBS19CXAWPM001C630S	3 x 1 (triplex)	630	35	108.5	21750
MVBS19CXAWPM001C800S	3 x 1 (triplex)	800	35	124.2	27000
MVBS19CXAWPM001C01KS	3 x 1 (triplex)	1000	35	134	32850

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	0.268	0.342	10.02	4.5	0.19	0.41	0.13
95	0.193	0.247	13.59	4.5	0.21	0.39	0.12
120	0.153	0.196	17.17	4.5	0.23	0.38	0.12
150	0.124	0.159	21.46	4.5	0.25	0.36	0.11
185	0.0991	0.128	26.47	4.5	0.27	0.35	0.11
240	0.0754	0.098	34.34	4.5	0.30	0.34	0.11

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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
300	0.0601	0.079	42.93	4.5	0.33	0.33	0.10
400	0.047	0.063	57.23	4.5	0.37	0.31	0.10
500	0.0366	0.051	71.54	4.5	0.41	0.25	0.08
630	0.0283	0.042	90.14	4.5	0.45	0.24	0.08
800	0.0221	0.036	114.47	4.5	0.53	0.23	0.07
1000	0.0176	0.032	143.08	4.5	0.59	0.22	0.07

Current Carrying Capacity :

		Continuous Current Rating					
No. of core	Nominal cross sectional area	Ground at 20°C		In single-way ducts		In air	
		Trefoil	Flat spaced	Trefoil ducts	Flat touching	Trefoil	Flat touching
	mm^2	Amp.	Amp.	Amp.	Amp.	Amp.	Amp.
1	70	239	246	227	229	296	303
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	615	561	535	462	911	837
1	630	672	598	582	491	1023	919
1	800	703	605	605	493	1103	960
1	1000	739	626	633	506	1191	1020

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