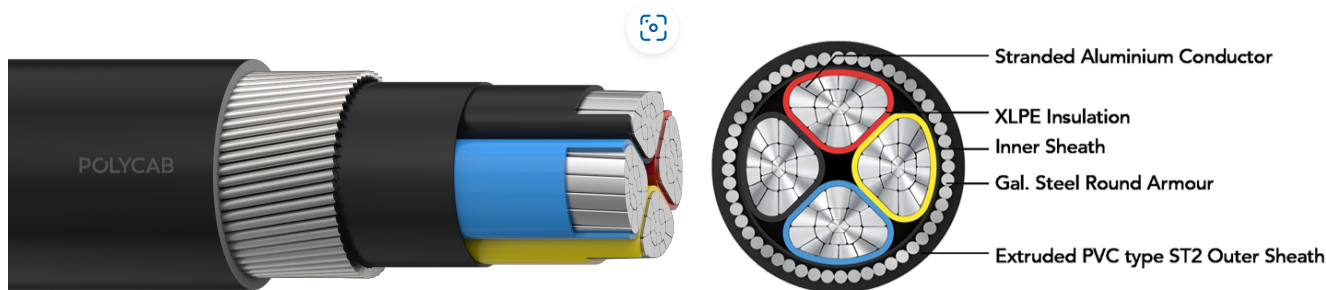


POLYCAB LV AL IEC 60502-1 0.6/1 KV MC-4 SWA

Power Cable, 0.6/1 (1.2) KV AC



Images not to scale. Follow table for dimensions

APPLICATION

POLYCAB LV AL IEC 60502-1 0.6/1 KV MC-4 SWA, stranded compacted aluminium conductor, XLPE insulated, and PVC sheathed armoured cable confirming to IEC 60502-1 is suitable for fixed installation such as distribution network or industrial installation. These cable cables are designed for systems with rated AC voltage 1KV ($U_m=1.2$ KV) & ≤ 1.5 KV (with a maximum 1.8 KV DC) between two live conductor.

CHARACTERISTICS

Voltage Rating

Nominal Voltage: 0.6/1 (1.2) kV

Operation Temperature

Max. operating temperature up to 90°C

Max. Short Circuit Temperature: 250°C

CONSTRUCTION

- Conductor: Circular Compacted or Stranded Aluminium conductor as per IEC 60228, class 2
- Insulation: XLPE as per IEC 60502-1
- Inner covering: Extruded or Lapped PVC
- Armouring: Galvanised steel wire armoured (SWA)
- Outer Sheath: Extruded Polyvinylchloride (ST2) or Polyethylene (ST7) or Halogen free (ST8) as per IEC 60502-1

Core Identification

Red, Yellow, Blue and Black

Bending Radius:

Fixed Installation: 12 x Overall diameter

Test Voltage

3.5kV AC

OUTSTANDING FEATURES

- High life
- High Insulation
- Resistance
- Flame retardant
- Low Halogen
- Low smoke
- UV resistant

STANDARD FOLLOWS

IEC 60228

IEC 60502-1

IEC 60332-1-2

COMPLIANCE

Conductor resistance IEC 60228

Insulation resistance IEC 60502-1

Shrinkage test IEC 60811-503

Flame Retardant test IEC 60332-1-2

NOTES

The above cable is also available with EPR/HEPR insulation type.

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Weight & Dimension Data

Product Code	Nominal Cross-sectional Area	Nominal Thickness			Nominal Diameter (Approx.)		Weight (Approx.) Kg/Km
		Insulation	Inner covering	Sheath	Armouring wire	Overall	
	mm ²	mm	mm	mm	mm	mm	
LVIE07AXSWY2004C004S	4	0.70	1.00	1.50	1.25	16.5	450
LVIE07AXSWY2004C006S	6	0.70	1.00	1.50	1.25	17.7	550
LVIE07AXSWY2004C010S	10	0.70	1.00	1.60	1.25	20.0	680
LVIE07AXSWY2004C016S	16	0.70	1.00	1.70	1.60	22.3	900
LVIE07AXSWY2004C025S	25	0.90	1.00	1.80	1.60	26.1	1210
LVIE07AXSWY2004C035S	35	0.90	1.00	1.90	1.60	28.6	1450
LVIE07AXSWY2004C050S	50	1.00	1.00	2.00	2.00	33.0	2000
LVIE07AXSWY2004C070S	70	1.10	1.20	2.20	2.00	37.9	2550
LVIE07AXSWY2004C095S	95	1.10	1.20	2.30	2.00	41.7	3030
LVIE07AXSWY2004C120S	120	1.20	1.20	2.50	2.50	45.4	3870
LVIE07AXSWY2004C150S	150	1.40	1.40	2.60	2.50	50.2	4610
LVIE07AXSWY2004C185S	185	1.60	1.40	2.80	2.50	55.0	5390
LVIE07AXSWY2004C240S	240	1.70	1.60	3.00	2.50	60.9	6510
LVIE07AXSWY2004C300S	300	1.80	1.60	3.20	2.50	66.4	7680
LVIE07AXSWY2004C400S	400	2.00	1.80	3.50	3.15	74.8	9990
LVIE07AXSWY2004C500S	500	2.20	1.80	3.80	3.15	83.9	12300
LVIE07AXSWY2004C630S	630	2.40	1.80	4.00	3.15	92.1	14650

Electrical Characteristics:

Current rating and maximum DC conductor resistance.

Nominal Cross-sectional area	Buried direct in the ground at 20°C	In single way Ducts at 30°C	In air at 30°C	Maximum DC conductor Resistance at 20°C
mm ²	Amp.	Amp.	Amp.	Ω/km
4	38	36	35	7.41
6	50	46	46	4.61
10	62	57	59	3.08
16	80	74	76	1.91
25	103	95	102	1.2

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Power Cable, 0.6/1 (1.2) KV AC

Nominal Cross-sectional area	Buried direct in the ground at 20°C	In single way Ducts at 30°C	In air at 30°C	Maximum DC conductor Resistance at 20°C
mm ²	Amp.	Amp.	Amp.	Ω/km
35	123	113	125	0.868
50	145	134	152	0.641
70	177	164	193	0.443
95	213	196	238	0.32
120	241	222	274	0.253
150	269	248	312	0.206
185	305	281	362	0.164
240	353	324	431	0.125
300	399	364	497	0.1
400	454	412	579	0.0778
500	516	463	673	0.0605
630	585	518	783	0.0469

Maximum conductor temperature 90°C
 Ambient air temperature 30°C
 Ground temperature 20°C
 Depth of laying 750 mm
 Thermal resistivity of soil 1.5 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

Current rating de-rating factors for other than 30°C ground temperature for cables in Ducts.

Ground Temperature	15	25	35	40	45	50
De-rating factor	1.12	1.04	0.96	0.91	0.87	0.82