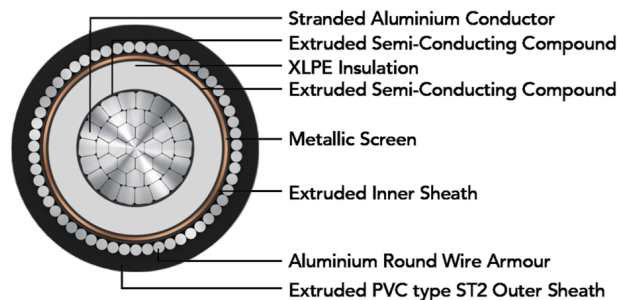


POLYCAB MV SC AL IS 7098-2, 11/11 KV(UE)

Medium Voltage Single Core Aluminium Armoured Cable, 11/11 KV (UE) AC



Images not to scale. Follow table for dimensions

APPLICATION

POLYCAB MV 11/11 KV(UE) XLPE insulated with aluminium conductor single core cable is suitable to use for power distribution for external and direct burial applications in power network system.

CHARACTERISTICS

Voltage Rating

Nominal Voltage: 11/11 KV (UE)

Operation Temperature

Max. operating temperature: +90°C

Max. Short Circuit Temperature: 250°C

Bending Radius:

Fixed Installation: 15D

D is overall diameter of cable

CONSTRUCTION

- Conductor: Circular Compacted Aluminium conductor as per IS 8130, class 2
- Conductor Screen: Extruded Semi-conductive compound
- Insulation: XLPE
- Non-Metallic Insulation Screen: Extruded Semi-conductive compound
- Metallic Insulation Screen: Copper tape screen
- Inner Sheath: Extruded Polyvinyl Chloride
- Armour: Aluminium Round/Flat Wire Armoured
- Outer Sheath: Extruded Polyvinyl Chloride,

Colour: Black

OUTSTANDING FEATURES

- Flame retardant
- High life
- UV resistant

STANDARD FOLLOWS

IS 8130:2013

IS 5831:1984

IS 3975:1979

IS 7098-2:2011

COMPLIANCE

- Conductor resistance IS 8130
- Insulation resistance IS 7098-2
- Flammability test IEC 60332-1-2
- Partial Discharge test IS 7098-2

OUR ACCREDITATIONS



APPROVAL



NOTES

- Inner sheath available with FR/ FRLS
- Outer/ Inner available with FR/FRLS

Test Voltage
35kV AC 50 Hz

Impulse test Voltage
95 KV

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DIMENSIONS AND WEIGHTS:

Product Code	No. of Cores	Core Cross sectional Area	Nominal Diameter			Weight (Approx.)
			Under armour	Over armour	Overall	
A2XW _a Y	No.	mm ²	mm	mm	mm	Kg/Km
MVIS11AXAWY2001C025SA001S	1C	25	19.3	22.5	25.3	729
MVIS11AXAWY2001C035SA001S	1C	35	20.5	23.7	26.5	805
MVIS11AXAWY2001C050SA001S	1C	50	22.0	25.2	28.4	931
MVIS11AXAWY2001C070SA001S	1C	70	23.6	26.8	29.9	1047
MVIS11AXAWY2001C095SA001S	1C	95	25.4	29.4	32.5	1257
MVIS11AXAWY2001C120SA001S	1C	120	27.2	31.2	34.3	1413
MVIS11AXAWY2001C150SA001S	1C	150	28.9	32.9	36.0	1577
MVIS11AXAWY2001C185SA001S	1C	185	30.6	34.6	37.7	1745
MVIS11AXAWY2001C240SA001S	1C	240	33.0	37.0	40.5	2030
MVIS11AXAWY2001C300SA001S	1C	300	35.5	39.5	43.0	2317
MVIS11AXAWY2001C400SA001S	1C	400	38.9	42.9	46.7	2781
MVIS11AXAWY2001C500SA001S	1C	500	42.2	47.2	51.3	3424
MVIS11AXAWY2001C630SA001S	1C	630	45.6	50.6	55.0	3974
MVIS11AXAWY2001C800SA001S	1C	800	49.9	54.9	59.3	4672
MVIS11AXAWY2001C01KSA001S	1C	1000	54.2	59.2	63.9	5499

Product Code	No. of Cores	Core Cross sectional Area	Nominal Diameter			Weight (Approx.)
			Under armour	Over armour	Overall	
A2XF _a Y	No.	mm ²	mm	mm	mm	Kg/Km
MVIS11AXAFY2001C025SA001S	1C	25	19.3	20.9	23.7	623
MVIS11AXAFY2001C035SA001S	1C	35	20.5	22.1	24.9	690
MVIS11AXAFY2001C050SA001S	1C	50	22.0	23.6	26.4	784
MVIS11AXAFY2001C070SA001S	1C	70	23.6	25.2	28.3	911
MVIS11AXAFY2001C095SA001S	1C	95	25.4	27.0	30.1	1040
MVIS11AXAFY2001C120SA001S	1C	120	27.2	28.8	31.9	1183
MVIS11AXAFY2001C150SA001S	1C	150	28.9	30.5	33.6	1328
MVIS11AXAFY2001C185SA001S	1C	185	30.6	32.2	35.3	1484
MVIS11AXAFY2001C240SA001S	1C	240	33.0	34.6	37.8	1719
MVIS11AXAFY2001C300SA001S	1C	300	35.5	37.1	40.6	2014
MVIS11AXAFY2001C400SA001S	1C	400	38.9	40.5	44.3	2445

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Product Code	No. of Cores	Core Cross sectional Area	Nominal Diameter			Weight (Approx.)
			Under armour	Over armour	Overall	
A2XFaY	No.	mm ²	mm	mm	mm	Kg/Km
MVIS11AXAFY2001C500SA001S	1C	500	42.2	43.8	47.6	2871
MVIS11AXAFY2001C630SA001S	1C	630	45.6	47.2	51.3	3375
MVIS11AXAFY2001C800SA001S	1C	800	49.9	51.5	55.9	4073
MVIS11AXAFY2001C01KSA001S	1C	1000	54.2	55.8	60.5	4837

The above data is approximate & subject to manufacturing tolerance.

ELECTRICAL CHARACTERISTICS:

No. of Cores	Core Cross sectional Area	Max. DC Resistance at 20°C	Max. AC Resistance at 90°C	Approx. Capacitance	Approx. Inductance		Approx. Reactance	
					mH/km		Ω/km	
No.	mm ²	Ω/km	Ω/km	μF/km	A2XFaY	A2XWaY	A2XFaY	A2XWaY
1	25	1.2	1.539	0.14	0.46	0.48	0.15	0.15
1	35	0.868	1.113	0.15	0.44	0.45	0.14	0.14
1	50	0.641	0.822	0.17	0.41	0.42	0.13	0.13
1	70	0.443	0.568	0.19	0.39	0.40	0.12	0.13
1	95	0.32	0.410	0.21	0.37	0.38	0.12	0.12
1	120	0.253	0.325	0.23	0.35	0.37	0.11	0.12
1	150	0.206	0.264	0.25	0.34	0.36	0.11	0.11
1	185	0.164	0.211	0.27	0.33	0.35	0.10	0.11
1	240	0.125	0.161	0.30	0.32	0.33	0.10	0.10
1	300	0.1	0.129	0.33	0.31	0.32	0.10	0.10
1	400	0.0778	0.101	0.37	0.30	0.31	0.09	0.10
1	500	0.0605	0.079	0.41	0.29	0.30	0.09	0.10
1	630	0.0469	0.061	0.45	0.28	0.30	0.09	0.09
1	800	0.0367	0.049	0.50	0.28	0.29	0.09	0.09
1	1000	0.0291	0.039	0.55	0.27	0.28	0.08	0.09

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Medium Voltage Single Core Aluminium Armoured Cable, 11/11 KV (UE) AC

CURRENT CARRYING CAPACITY:

Nominal area of conductor	Buried direct in the ground		In single -way Ducts		In air	
	Trefoil	Flat touching	Trefoil ducts	Flat touching ducts	Trefoil	Flat Touching
Sqmm	A	A	A	A	A	A
25	99	101	88	86	116	119
35	118	120	104	102	140	143
50	138	141	122	120	167	171
70	168	172	149	146	209	213
95	200	204	177	172	254	258
120	227	230	200	194	294	298
150	252	255	223	215	331	335
185	284	284	250	238	383	384
240	326	323	286	270	450	446
300	365	357	319	297	512	503
400	412	397	359	329	594	575
500	461	436	401	360	680	647
630	514	476	445	390	778	725
800	553	496	476	404	863	781
1000	595	523	509	423	954	846

Air Ambient temperature: 40°C

Ground ambient temperature: 30°C

Conductor operating temperature: 90°C

The above table is in accordance with IS 3961(part 7):2016

De-Rating Factor

Rating factor for variation in ambient air temperature for cable in free air

Ambient air Temperature	25°C	30°C	35°C	40°C	45°C	50°C	55°C	60°C
De-Rating Factor	1.14	1.10	1.05	1.00	0.95	0.89	0.84	0.77

Maximum conductor temperature 90°C

Rating factor for variation in ground temperature for direct buried cables.

Ground Temperature	15°C	20°C	25°C	30°C	35°C	40°C	45°C	50°C
De-Rating Factor	1.12	1.08	1.04	1.00	0.96	0.91	0.87	0.82

Maximum conductor temperature 90°C

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Rating factor for variation in ground temperature for cable in duct.

Ground Temperature	15°C	20°C	25°C	30°C	35°C	40°C	45°C	50°C
De-Rating Factor	1.12	1.08	1.04	1.00	0.96	0.91	0.87	0.82

Maximum conductor temperature 90°C