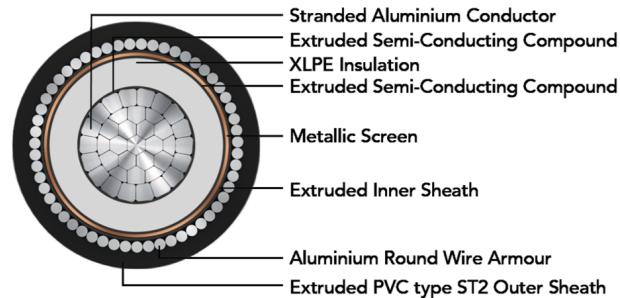


# POLY CAB MV SC AL IS 7098-2, 6.6/6.6 KV(UE)

## Medium Voltage Single Core Aluminium Armoured Cable, 6.6/6.6 KV (UE) AC

**POLY CAB**  
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Images not to scale. Follow table for dimensions

### APPLICATION

POLY CAB MV 6.6/6.6 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: 6.6/6.6 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

21kV AC 50 Hz

### Impulse test Voltage

75 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	
A2XWaY	No.	mm <sup>2</sup>	mm	mm	mm	Kg/Km
MVIS18AXAWY2001C025SA001S	1C	25	15.5	18.7	21.5	555
MVIS18AXAWY2001C035SA001S	1C	35	16.7	19.9	22.7	619
MVIS18AXAWY2001C050SA001S	1C	50	18.2	21.4	24.2	713
MVIS18AXAWY2001C070SA001S	1C	70	19.8	23.0	25.8	819
MVIS18AXAWY2001C095SA001S	1C	95	21.6	24.8	27.6	951
MVIS18AXAWY2001C120SA001S	1C	120	23.2	26.4	29.5	1094
MVIS18AXAWY2001C150SA001S	1C	150	24.9	28.1	31.2	1238
MVIS18AXAWY2001C185SA001S	1C	185	26.8	30.8	33.9	1488
MVIS18AXAWY2001C240SA001S	1C	240	29.2	33.2	36.4	1727
MVIS18AXAWY2001C300SA001S	1C	300	31.7	35.7	39.2	2028
MVIS18AXAWY2001C400SA001S	1C	400	34.9	38.9	42.4	2407
MVIS18AXAWY2001C500SA001S	1C	500	38.4	42.4	46.2	2897
MVIS18AXAWY2001C630SA001S	1C	630	41.8	46.8	50.9	3560
MVIS18AXAWY2001C800SA001S	1C	800	45.9	50.9	55.3	4247
MVIS18AXAWY2001C01KSA001S	1C	1000	50.4	55.4	60.1	5071

Product Code	No. of Cores	Core Cross sectional Area	Nominal Diameter			Weight (Approx.)
			Under armour	Over armour	Overall	
A2XFaY	No.	mm <sup>2</sup>	mm	mm	mm	Kg/Km
MVIS18AXAFY2001C025SA001S	1C	25	15.5	17.1	19.9	467
MVIS18AXAFY2001C035SA001S	1C	35	16.7	18.3	21.1	527
MVIS18AXAFY2001C050SA001S	1C	50	18.2	19.8	22.6	612
MVIS18AXAFY2001C070SA001S	1C	70	19.8	21.4	24.2	708
MVIS18AXAFY2001C095SA001S	1C	95	21.6	23.2	26.0	825
MVIS18AXAFY2001C120SA001S	1C	120	23.2	24.8	27.6	943
MVIS18AXAFY2001C150SA001S	1C	150	24.9	26.5	29.6	1098
MVIS18AXAFY2001C185SA001S	1C	185	26.8	28.4	31.5	1258
MVIS18AXAFY2001C240SA001S	1C	240	29.2	30.8	34.0	1478
MVIS18AXAFY2001C300SA001S	1C	300	31.7	33.3	36.4	1728
MVIS18AXAFY2001C400SA001S	1C	400	34.9	36.5	40.0	2113

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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 <sup>2</sup>	mm	mm	mm	Kg/Km
MVIS18AXAFY2001C500SA001S	1C	500	38.4	40.0	43.8	2570
MVIS18AXAFY2001C630SA001S	1C	630	41.8	43.4	47.1	3014
MVIS18AXAFY2001C800SA001S	1C	800	45.9	47.5	51.6	3655
MVIS18AXAFY2001C01KSA001S	1C	1000	50.4	52.0	56.4	4412

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	
					μF/km	mH/km	A2XFaY	A2XWaY
No.	mm <sup>2</sup>	Ω/km	Ω/km					
					A2XFaY	A2XWaY	A2XFaY	A2XWaY
1	25	1.2	1.539	0.18	0.43	0.44	0.13	0.14
1	35	0.868	1.113	0.20	0.41	0.42	0.13	0.13
1	50	0.641	0.822	0.23	0.38	0.39	0.12	0.12
1	70	0.443	0.568	0.25	0.36	0.37	0.11	0.12
1	95	0.32	0.410	0.29	0.34	0.35	0.11	0.11
1	120	0.253	0.325	0.32	0.33	0.34	0.10	0.11
1	150	0.206	0.264	0.35	0.32	0.33	0.10	0.10
1	185	0.164	0.211	0.38	0.31	0.32	0.10	0.10
1	240	0.125	0.161	0.42	0.30	0.31	0.09	0.10
1	300	0.1	0.129	0.47	0.29	0.30	0.09	0.09
1	400	0.0778	0.101	0.52	0.28	0.29	0.09	0.09
1	500	0.0605	0.079	0.58	0.27	0.28	0.09	0.09
1	630	0.0469	0.061	0.64	0.27	0.28	0.08	0.09
1	800	0.0367	0.049	0.72	0.26	0.27	0.08	0.09
1	1000	0.0291	0.039	0.79	0.26	0.27	0.08	0.08

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**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