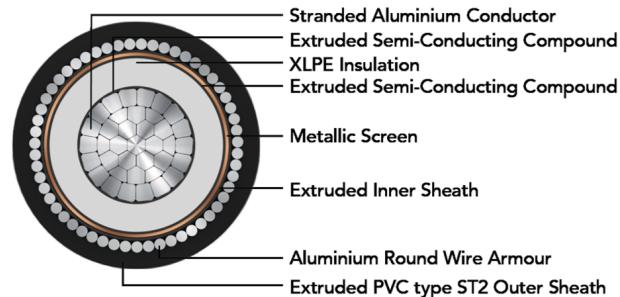


POLY CAB MV SC AL IS 7098-2, 6.6/6.6 KV(UE)

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

POLY CAB
IDEAS. CONNECTED.



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 ² | 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 ² | 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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Medium Voltage Single Core Aluminium Armoured Cable,
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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 |
| 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 ² | Ω/km | Ω/km | | | | 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