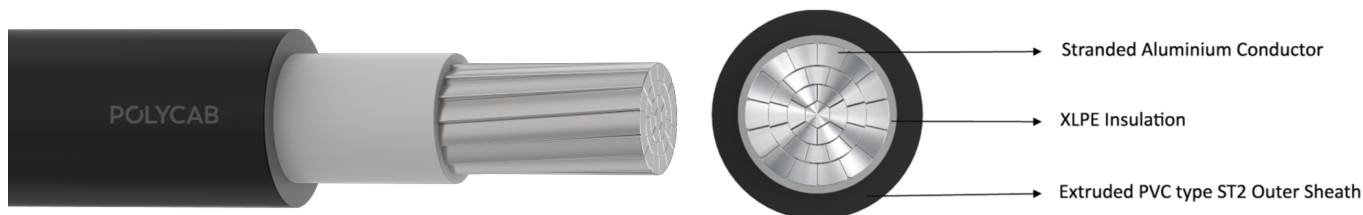


POLYCAB A2XY SC IS 7098-P1 POWER CABLE 650/1100 V AC



Images not to scale. Follow table for dimensions

APPLICATION

POLYCAB A2XY SC, stranded compacted aluminium conductor, XLPE insulated, and PVC sheathed conforming to IS 7098-1 is suitable for AC single phase or three phase (earthed or unearthed) systems with rated voltage up to and including 1100 V. This cable is also suitable for DC systems with rated voltage up to and including 1500 V to earth.

CHARACTERISTICS

Voltage Rating

650/1100 V

Operation Temperature

Max.: 90°C

Short circuit temperature 250°C

CONSTRUCTION

- Stranded/Solid compacted Aluminium conductor as per IS 8130, class 1 or class 2
- Insulated with Cross Linked Polyethylene (XLPE) to IS 7098-1
- Sheathed with PVC Type ST2/FRLS/FR/LSZH

Core Identification

Red/Black/Yellow/Blue/Natural

Bending Radius

Fixed installation 12 x Overall diameter

OUTSTANDING FEATURES

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

STANDARD FOLLOWS

IS 8130:2013

IS 5831:1984

IS 7098-1:1988

COMPLIANCE

Conductor resistance - IS 8130:2013

Insulation resistance - IS 7098-1:1988

Flammability test - IEC 60332-1-2:2015

OUR ACCREDITATIONS



APPROVAL



Weight & Dimension Data

| Product code | Conductor size | Class of conductor | Nominal Thickness of Insulation | Nominal thickness of outer sheath | Overall Diameter | Weight (Approx.) |
|---------------------------|---------------------|--------------------|---------------------------------|-----------------------------------|------------------|------------------|
| | n x mm ² | | mm | mm | mm | kg/km |
| LVIS09AXUAY2001C004SA001P | 1 x 4 | Class1 | 0.7 | 1.8 | 7.5 | 60 |
| LVIS09AXUAY2001C006SA001S | 1 x 6 | Class1 | 0.7 | 1.8 | 8 | 70 |
| LVIS09AXUAY2001C010SA002S | 1 x 10 | Class1 | 0.7 | 1.8 | 9 | 80 |
| LVIS09AXUAY2001C004SA001P | 1 x 4 | Class 2 | 0.7 | 1.8 | 8 | 65 |
| LVIS09AXUAY2001C006SA001S | 1 x 6 | Class 2 | 0.7 | 1.8 | 8.5 | 75 |
| LVIS09AXUAY2001C010SA001S | 1 x 10 | Class 2 | 0.7 | 1.8 | 9.5 | 90 |
| LVIS09AXUAY2001C016SA001S | 1 x 16 | Class 2 | 0.7 | 1.8 | 10 | 115 |
| LVIS09AXUAY2001C025SA001S | 1 x 25 | Class 2 | 0.9 | 1.8 | 12 | 155 |
| LVIS09AXUAY2001C035SA001S | 1 x 35 | Class 2 | 0.9 | 1.8 | 13 | 180 |
| LVIS09AXUAY2001C050SA001S | 1 x 50 | Class 2 | 1 | 1.8 | 14 | 240 |
| LVIS09AXUAY2001C070SA001S | 1 x 70 | Class 2 | 1.1 | 1.8 | 15.5 | 310 |
| LVIS09AXUAY2001C095SA001S | 1 x 95 | Class 2 | 1.1 | 1.8 | 17.5 | 385 |
| LVIS09AXUAY2001C120SA001S | 1 x 120 | Class 2 | 1.2 | 1.8 | 19.5 | 470 |
| LVIS09AXUAY2001C150SA001S | 1 x 150 | Class 2 | 1.4 | 2 | 21.5 | 600 |
| LVIS09AXUAY2001C185SA001S | 1 x 185 | Class 2 | 1.6 | 2 | 23.5 | 710 |
| LVIS09AXUAY2001C240SA001S | 1 x 240 | Class 2 | 1.7 | 2 | 26 | 900 |
| LVIS09AXUAY2001C300SA001S | 1 x 300 | Class 2 | 1.8 | 2 | 28.5 | 1158 |
| LVIS09AXUAY2001C400SA001S | 1 x 400 | Class 2 | 2 | 2.2 | 31.5 | 1385 |
| LVIS09AXUAY2001C500SA001S | 1 x 500 | Class 2 | 2.2 | 2.2 | 35.5 | 1650 |
| LVIS09AXUAY2001C630SA001S | 1 x 630 | Class 2 | 2.4 | 2.2 | 39.5 | 2100 |
| LVIS09AXUAY2001C800SA001S | 1 x 800 | Class 2 | 2.6 | 2.4 | 44.5 | 2730 |
| LVIS09AXUAY2001C01KSA001S | 1 x 1000 | Class 2 | 2.8 | 2.6 | 48.5 | 3350 |

The above data is approximate & subject to manufacturing tolerance.

Electrical characteristics

Current carrying capacity and Max. DC conductor resistance at 20°C.

| Nominal cross sectional area | Buried direct in the ground | | In single way Ducts | | In air | | Max. DC conductor resistance at 20°C |
|------------------------------|-----------------------------|---------------------|----------------------|---------------------|----------------------|---------------------|--------------------------------------|
| | 2 single core cables | 3 single core cable | 2 single core cables | 3 single core cable | 2 single core cables | 3 single core cable | |
| mm ² | Amp. | Amp. | Amp. | Amp. | Amp. | Amp. | Ω/km |
| 4 | 43 | 37 | 36 | 34 | 38 | 33 | 7.41 |
| 6 | 55 | 47 | 47 | 43 | 50 | 43 | 4.61 |
| 10 | 69 | 59 | 58 | 54 | 64 | 55 | 3.08 |

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| Nominal cross sectional area mm ² | Buried direct in the ground | | In single way Ducts | | In air | | Max. DC conductor resistance at 20°C Ω/km |
|---|------------------------------|-----------------------------|------------------------------|-----------------------------|------------------------------|-----------------------------|--|
| | 2 single core cables Amp. | 3 single core cable Amp. | 2 single core cables Amp. | 3 single core cable Amp. | 2 single core cables Amp. | 3 single core cable Amp. | |
| 16 | 89 | 76 | 75 | 69 | 84 | 72 | 1.91 |
| 25 | 115 | 98 | 96 | 89 | 112 | 98 | 1.2 |
| 35 | 137 | 116 | 115 | 106 | 137 | 119 | 0.868 |
| 50 | 161 | 137 | 135 | 124 | 165 | 145 | 0.641 |
| 70 | 198 | 168 | 165 | 151 | 209 | 185 | 0.443 |
| 95 | 243 | 202 | 199 | 181 | 264 | 235 | 0.32 |
| 120 | 276 | 230 | 226 | 206 | 308 | 276 | 0.253 |
| 150 | 308 | 256 | 252 | 229 | 350 | 314 | 0.206 |
| 185 | 349 | 290 | 285 | 258 | 406 | 366 | 0.164 |
| 240 | 404 | 335 | 329 | 298 | 480 | 434 | 0.125 |
| 300 | 454 | 376 | 369 | 333 | 551 | 500 | 0.1 |
| 400 | 518 | 429 | 421 | 378 | 647 | 589 | 0.0778 |
| 500 | 588 | 485 | 476 | 426 | 751 | 685 | 0.0605 |
| 630 | 663 | 546 | 536 | 477 | 868 | 793 | 0.0469 |
| 800 | 740 | 608 | 596 | 528 | 992 | 907 | 0.0367 |
| 1000 | 812 | 665 | 652 | 575 | 1117 | 1022 | 0.0291 |

Air Ambient temperature: 40°C

Ground ambient temperature: 30°C

The above table is in accordance with IS 3961(part 6):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

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