

## AL 1000V LSZH Insulation. RW90

Single Aluminum Conductors, XLPE Insulation, Sunlight Resistant, 600 or 1000V, 90°C MAX, -40°C MIN, Gasoline & Oil Resistant

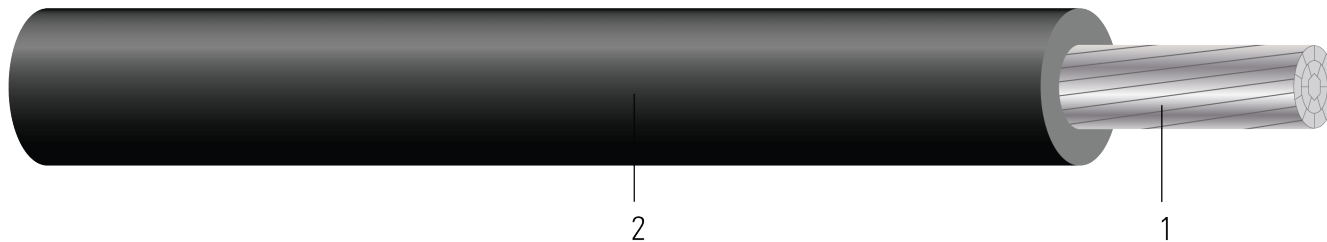


Image not to scale. See Table 1 for dimensions.

### CONSTRUCTION:

1. **Conductor:** Class B compact stranded 8000 Series Aluminum ACM in accordance with ASTM B801
2. **Insulation:** Cross Linked Polyethylene (XLPE)

### APPLICATIONS AND FEATURES:

Southwire's 600 or 1000 Volt SOLONONplus® Type RW 90 VW-1 cables are suited for use in wet and dry areas, conduits, ducts, troughs, trays, and aerially when supported by a messenger. These cables are ideal for use in establishments where low smoke and low acid emissions are desired for public safety and health and where superior electrical properties are desired. These cables are capable of operating continuously at the conductor temperature not in excess of 90°C for normal operation in wet and dry locations, 130°C for emergency overload, and 250°C for short circuit conditions.

### SPECIFICATIONS:

- ASTM B801 Concentric-Lay-Stranded Conductors of 8000 Series Aluminum Alloy
- CSA C22.2 No. 38 Thermoset-insulated wires and cables
- CSA C22.2 No.230 Tray Cables - Rated TC-ER (1/0 AWG and Larger)
- CSA C22.2 No. 2556 / UL 2556 Cable Test Methods
- CSA SUN RES - for Sunlight Resistant rating
- CSA ST1 Smoke Test - marked FT4-ST1 (1/0 and Larger)
- Oil Res I & Sun Res - AWG 8 & Larger

### SAMPLE PRINT LEGEND:

SOUTHWIRE SOLONONplus (TM) LSZH XLPO 156205 {CSA} XXX AWG (XXX mm<sup>2</sup>) AL RW90 600/1000V VW-1 HAL-FREE TC  
PRI PRII GRI GRII -40°C SR FT4 ST-1 {SEQUENTIAL METER MARKS} SEQ METERS [date code]



**Table 1 – Weights and Measurements**

| Cond. Size | Strand | Insul. Thickness | Approx. OD | Approx. Weight | Min Bending Radius | Max Pull Tension | DC Resistance @ 25°C | AC Resistance @ 75°C | Inductive Reactance @ 60Hz | Allowable Ampacity In Raceway 90°C† |
|------------|--------|------------------|------------|----------------|--------------------|------------------|----------------------|----------------------|----------------------------|-------------------------------------|
| AWG/Kcmil  | No.    | mil              | inch       | lb/1000ft      | inch               | lb               | Ω/1000ft             | Ω/1000ft             | Ω/1000ft                   | Amp                                 |
| 2          | 7      | 60               | 0.358      | 85             | 1.4                | 398              | 0.267                | 0.321                | 0.045                      | 100                                 |
| 1          | 19     | 80               | 0.408      | 109            | 1.6                | 502              | 0.211                | 0.254                | 0.046                      | 115                                 |
| 1/0        | 19     | 80               | 0.446      | 134            | 1.7                | 633              | 0.168                | 0.201                | 0.044                      | 135                                 |
| 2/0        | 19     | 80               | 0.486      | 163            | 1.9                | 798              | 0.133                | 0.160                | 0.043                      | 150                                 |
| 3/0        | 19     | 80               | 0.532      | 200            | 2.1                | 1006             | 0.105                | 0.126                | 0.042                      | 175                                 |
| 4/0        | 19     | 80               | 0.584      | 246            | 2.3                | 1269             | 0.084                | 0.100                | 0.041                      | 205                                 |
| 250        | 37     | 90               | 0.650      | 297            | 2.6                | 1500             | 0.071                | 0.086                | 0.041                      | 230                                 |
| 350        | 37     | 90               | 0.745      | 401            | 2.9                | 2100             | 0.050                | 0.062                | 0.040                      | 280                                 |
| 400        | 37     | 90               | 0.789      | 453            | 3.1                | 2400             | 0.044                | 0.054                | 0.040                      | 305                                 |
| 500        | 37     | 90               | 0.865      | 556            | 3.4                | 3000             | 0.035                | 0.044                | 0.039                      | 350                                 |
| 750        | 61     | 90               | 1.068      | 835            | 5.3                | 4500             | 0.024                | 0.031                | 0.038                      | 435                                 |
| 1000       | 61     | 90               | 1.220      | 1090           | 6.1                | 6000             | 0.018                | 0.025                | 0.037                      | 500                                 |

All dimensions are nominal and subject to normal manufacturing tolerances

◊ Cable marked with this symbol is a standard stock item

\* Strand count meets minimum number per ASTM

**Table 2 – Weights and Measurements (Metric)**

| Cond. Size | Strand | Insul. Thickness | Approx. OD | Approx. Weight | Min Bending Radius | Max Pull Tension | DC Resistance @ 25°C | AC Resistance @ 75°C | Inductive Reactance @ 60Hz | Allowable Ampacity In Raceway 90°C |
|------------|--------|------------------|------------|----------------|--------------------|------------------|----------------------|----------------------|----------------------------|------------------------------------|
| AWG/Kcmil  | No.    | mm               | mm         | kg/km          | mm                 | newton           | Ω/km                 | Ω/km                 | Ω/km                       | Amp                                |
| 2          | 7      | 1.52             | 9.09       | 126            | 35.56              | 1771             | 0.88                 | 1.05                 | 0.1476                     | 100                                |
| 1          | 19     | 2.03             | 10.36      | 162            | 40.64              | 2234             | 0.69                 | 0.83                 | 0.1509                     | 115                                |
| 1/0        | 19     | 2.03             | 11.33      | 199            | 43.18              | 2817             | 0.55                 | 0.66                 | 0.1444                     | 135                                |
| 2/0        | 19     | 2.03             | 12.34      | 243            | 48.26              | 3551             | 0.44                 | 0.52                 | 0.1411                     | 150                                |
| 3/0        | 19     | 2.03             | 13.51      | 298            | 53.34              | 4477             | 0.34                 | 0.41                 | 0.1378                     | 175                                |
| 4/0        | 19     | 2.03             | 14.83      | 366            | 58.42              | 5647             | 0.28                 | 0.33                 | 0.1345                     | 205                                |
| 250        | 37     | 2.29             | 16.51      | 442            | 66.04              | 6675             | 0.23                 | 0.28                 | 0.1345                     | 230                                |
| 350        | 37     | 2.29             | 18.92      | 597            | 73.66              | 9345             | 0.16                 | 0.20                 | 0.1312                     | 280                                |
| 400        | 37     | 2.29             | 20.04      | 674            | 78.74              | 10680            | 0.14                 | 0.18                 | 0.1312                     | 305                                |
| 500        | 37     | 2.29             | 21.97      | 827            | 86.36              | 13350            | 0.11                 | 0.14                 | 0.1280                     | 350                                |
| 750        | 61     | 2.29             | 27.13      | 1243           | 134.62             | 20025            | 0.08                 | 0.10                 | 0.1247                     | 435                                |
| 1000       | 61     | 2.29             | 30.99      | 1622           | 154.94             | 26700            | 0.06                 | 0.08                 | 0.1214                     | 500                                |

All dimensions are nominal and subject to normal manufacturing tolerances

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\* Strand count meets minimum number per ASTM

