



## ACWU 90 CSA. Silicone Free

Aluminum XLPE Insulated Singles with 8000 series Triple E™ Aluminum Alloy. Bare AlumaFlex™ Aluminum Alloy Grounding Conductor. CSA Listed. 600 Volts. Lightweight Aluminum Interlocked Armor. Overall PVC Jacket. Sunlight Resistant, Direct Burial.

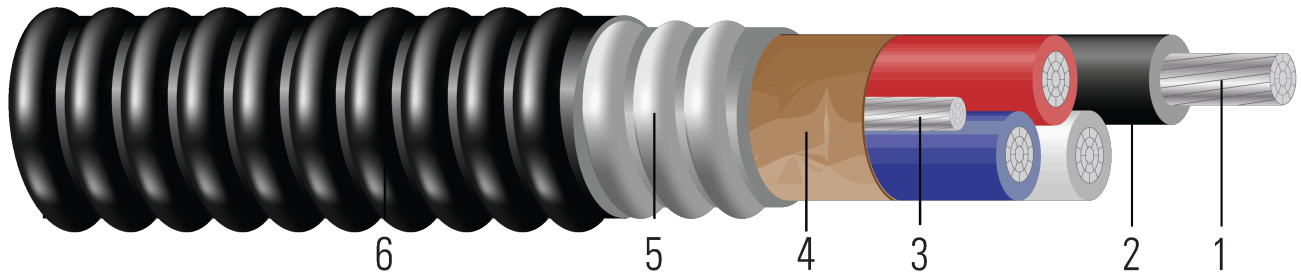


Image not to scale. See Table 1 for dimensions.

### CONSTRUCTION:

1. **Conductor:** Class B compact stranded 8000 Series aluminum per ASTM B800 and ASTM B801
2. **Insulation:** All phases are insulated with cross-linked polyethylene RW90
3. **Ground:** Bare aluminum ground
4. **Binder:** Oil impregnated Kraft paper binder tape
5. **Aarmor:** Aluminum Interlocked Armor
6. **Jacket:** Polyvinyl Chloride (PVC) Jacket, sunlight resistant, corrosion resistant

### APPLICATIONS AND FEATURES:

Southwire ACWU 90 Feeder cable is suitable for use as follows:

- Feeder and service power distribution in commercial, industrial, institutional, and multi-residential buildings.
- Where exposed to cinder fills, strong chlorides, caustic alkalis, or vapors of chlorine or of hydrochloric acids.
- Fished or embedded in plaster.
- Concealed or exposed installations.
- CSA Certified File Listing: LL90458, CLASS 581801 - Armoured Cable
- FT-4 - Flame Test Rating.
- Installation in cable tray and approved raceways, or as aerial cable on a messenger.
- CSA Sunlight Resistant
- AG-14 - Acid Gas Test Rating
- Passes CSA -40°C Cold Bend & -40°C Impact Test
- Allows for -25°C Installation Temperature
- XLPE Insulation: +90°C Temperature Rating

Southwire ACWU 90 Feeder cable construction:

- Compact 8000 Series ACM aluminum conductors with low temperature cross-linked polyethylene insulation (XLPE) and bare aluminum bonding wire in multi-conductor cables. Conductor assembly is wrapped and enclosed in interlocked aluminum armour with a low flame spread PVC jacket (FT4 and AG14 rating).

Colour Coding:

- For 3 conductor constructions: black, red and white plus bare bonding conductor.





- For 4 conductor constructions: black, red, blue and white plus bare bonding conductor.

**SPECIFICATIONS:**

- ASTM B800 8000 Series Aluminum Alloy Wire
- 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. 51 Armored Cables
- CSA C22.2 No. 0-M91 General Requirements
- IEEE 1202 FT4 Flame Test (70,000) BTU/hr Vertical Tray Test

**SAMPLE PRINT LEGEND:**

{SQMTR} SOUTHWIRE® {CSA} LL90458 X/C XXX AWG AL ACM ACWU90 XLPE -40°C AG14 FT4 SUN. RES. 600V

**Table 1 – Weights and Measurements**

| Stock Number | Cond. Size    | Conductor Number | Diameter Over Conductor | Conductor Stranding | Insulation Thickness | Ground Size  | Diameter Over Armor | Jacket Thickness | Approx. OD | Overall Weight |
|--------------|---------------|------------------|-------------------------|---------------------|----------------------|--------------|---------------------|------------------|------------|----------------|
|              | AWG/<br>Kcmil |                  | inch                    |                     | mils                 | No. x<br>AWG | inch                | mil              | inch       | lbs/1000ft     |
| 565909       | 250           | 4                | 0.520                   | 22                  | 65                   | 1x2          | 1.905               | 95               | 2.119      | 1830           |

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 – Electrical and Engineering Data**

| Cond. Size    | Conductor Number | Min. Bend Radius | Max Pull Tension | DC Resistance at 25°C | AC Resistance at 75°C | Inductive Reactance @ 60Hz | Allowable Ampacity Raceway 75°C | Allowable Ampacity Raceway 90°C |
|---------------|------------------|------------------|------------------|-----------------------|-----------------------|----------------------------|---------------------------------|---------------------------------|
| AWG/<br>Kcmil |                  | Inches           | Lbs              | Ω/1000ft              | Ω/1000ft              | Ω/1000ft                   | Amp                             | Amp                             |
| 250           | 4                | 14.8             | 4800             | 0.071                 | 0.086                 | 0.041                      | 164                             | 184                             |

\* Ampacities based upon 2023 NEC Table 310.16 and do not take into account the overcurrent protection limitations in NEC 240.4(D) of 15 Amps for 14 AWG CU, 20 Amps for 12 AWG CU, and 30 Amps for 10 AWG CU (independent of the conductor temperature rating and stranding if size is present in table). Also, see NEC sections 310.15 and 110.14(C) for additional requirements.

\* Ampacities have been adjusted for more than Three Current-Carrying Conductors.

\* Inductive impedance is based on non-ferrous conduit with one diameter spacing.

