

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.

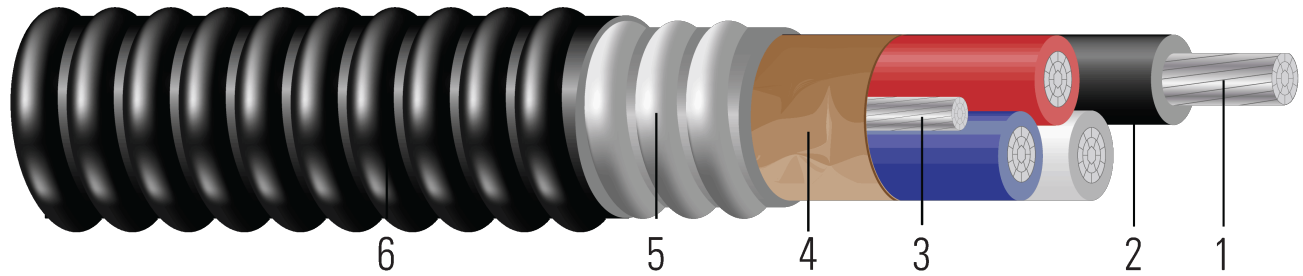


Image not to scale. See Table 1 for dimensions.

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.



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UPDATED: March 13, 2024, 2:37 p.m. UTC REVISION: 1.000.004

- 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/ Kcmil		inch		mils	No. x AWG	inch	mil	inch	lbs/1000ft
566346	1	4	0.298	8	55	1x4	1.316	80	1.476	895

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 60°C	Allowable Ampacity Raceway 75°C	Allowable Ampacity Raceway 90°C
AWG/ Kcmil		Inches	Lbs	Ω/1000ft	Ω/1000ft	Ω/1000ft	Amp	Amp	Amp
1	4	10.3	1606	0.211	0.254	0.046	68	80	92

* 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.

