



Aluminum AlumaFlex® Silicone-Free RHH/RHW/USE-2

600 Volts. Underground Service Entrance Cable. AlumaFlex® Brand Aluminum Alloy (AA-8176) Conductor. Cross-linked Polyethylene (XLP) Insulation. High Heat, Moisture, and Sunlight Resistant. Rated SIS in sizes 6 – 4/0 AWG.



Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

- Conductor:** Class B compact stranded bare aluminum per ASTM B800 and ASTM B801
- Insulation:** Cross Linked Polyethylene (XLPE) Type RHH/RHW-2 USE-2 Silicone-Free

APPLICATIONS AND FEATURES:

Southwire's 600 Volt power cables are suited for use in wet and dry areas, conduits, ducts, troughs, trays, direct burial, aerial supported by a messenger, 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. Rated for 1000 lbs./FT maximum sidewall pressure.

SPECIFICATIONS:

- ASTM B800 8000 Series Aluminum Alloy Wire
- ASTM B801 Concentric-Lay-Stranded Conductors of 8000 Series Aluminum Alloy
- ASTM B836 Compact Rounded Stranded Aluminum Conductors
- UL 44 Thermoset-Insulated Wires and Cables
- UL 854 Service Entrance Cable
- ICEA S-95-658 (NEMA WC70) Power Cables Rated 2000 Volts or Less for the Distribution of Electrical Energy
- RoHS-2 (European Directive 2011/65/EU)

SAMPLE PRINT LEGEND:

{SQFTG} SOUTHWIRE E32071 {UL} XXX AWG COMPACT AL. --- {ALUMAFLEX}® AA8176 TYPE USE-2 OR RHH OR RHW-2 OR SIS XXX MILS XLP 600 VOLTS

Table 1 – Weights and Measurements

| Stock Number | Cond. Size AWG/Kcmil | Cond. Number | Strand Count No. of Strands | Diameter Over Conductor inch | Insul. Thickness mil | Approx. OD inch | Aluminum Weight lb/1000ft | Approx. Weight lb/1000ft |
|--------------|-------------------------|--------------|--------------------------------|---------------------------------|-------------------------|--------------------|------------------------------|-----------------------------|
| 272880◇ | 250 | 1 | 22 | 0.520 | 95 | 0.720 | 235 | 321 |

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





| Stock Number | Cond. Size | Cond. Number | Min Bending Radius | Max Pull Tension | DC Resistance @ 25°C | AC Resistance @ 75°C | Inductive Reactance @ 60Hz | Allowable Ampacity At 75°C | Allowable Ampacity At 90°C |
|--------------|------------|--------------|--------------------|------------------|----------------------|----------------------|----------------------------|----------------------------|----------------------------|
| | AWG/Kcmil | | inch | lb | Ω/1000ft | Ω/1000ft | Ω/1000ft | Amp | Amp |
| 272880◇ | 250 | 1 | 2.8 | 1500 | 0.069 | 0.086 | 0.041 | 205 | 230 |

† 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.

Stock Code Colors

| Size | Black | Brown | White | Green |
|------|---|---|---|---|
| |  |  |  |  |
| 6 | 272799 | | | 301572 |
| 4 | 272807 | | | 334680 |
| 2 | 272823 | | 575240 | |
| 1 | 272831 | | | |
| 1/0 | 272849 | | | |
| 2/0 | 272856 | | | |
| 3/0 | 272864 | | | |
| 4/0 | 272872 | | | |
| 250 | 272880 | | | |
| 300 | 272898 | | | |
| 350 | 272906 | | | 576086 |
| 400 | 272914 | | | |
| 500 | 272922 | 560674 | | |
| 600 | 272930 | | | |
| 700 | 596530 | | | |
| 750 | 272955 | | | |

