

# 1/C AL 600 or 1000V XLPE XHHW-2 Power Cable

Power Cable 600 or 1000 Volt Single Conductor Aluminum, Cross Linked Polyethylene (XLPE) insulation XHHW-2

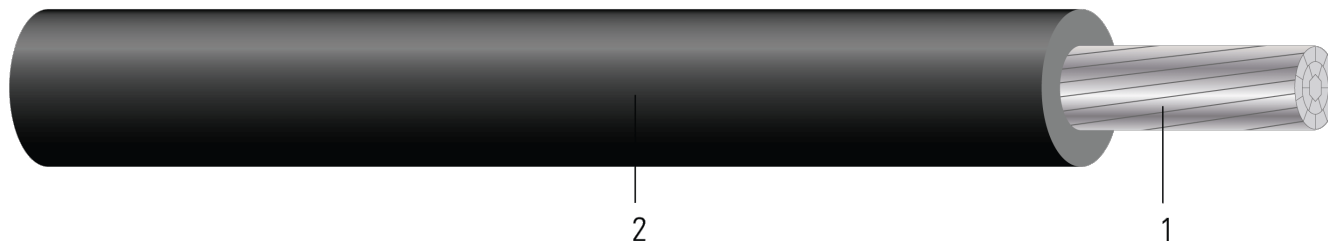


Image not to scale. See Table 1 for dimensions.

## CONSTRUCTION:

1. **Conductor:** Class B compact stranded 8000 Series aluminum per ASTM B800 and ASTM B836
2. **Insulation:** Cross Linked Polyethylene (XLPE) Type XHHW-2

## APPLICATIONS AND FEATURES:

Southwire's 600 or 1000 Volt power cables are suited for use in wet and dry areas, conduits, ducts, troughs, trays, 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. For uses in Class I, II, and III, Division 2 hazardous locations per NEC Article 501 and 502.

## SPECIFICATIONS:

- ASTM B800 8000 Series Aluminum Alloy Wire
- ASTM B836 Compact Rounded Stranded Aluminum Conductors
- UL 44 Thermoset-Insulated Wires and Cables
- UL 1685 Vertical-Tray Fire Propagation and Smoke Release Test (1/0 and Larger)
- ICEA S-95-658 (NEMA WC70) Power Cables Rated 2000 Volts or Less for the Distribution of Electrical Energy
- CT USE Sizes 1/0 AWG and Larger
- VW-1 (Vertical-Wire) Flame Test

## SAMPLE PRINT LEGEND:

SOUTHWIRE E30117 MASTER-DESIGN {UL} XXX AWG 8000 COMPACT AL.--- TRIPLE E ALLOY AA8176 TYPE XHHW-2 VW-1 FOR CT USE SUN. RES. 600V OR 1000V {YYYY} {SEQUENTIAL FOOTAGE MARKS} SEQ FEET



**Table 1 – Weights and Measurements**

| Stock Number | Cond. Size<br>AWG/Kcmil | Diameter Over Conductor<br>inch | Insul. Thickness<br>mil | Approx. OD<br>inch | Aluminum Weight<br>lb/1000ft | Approx. Weight<br>lb/1000ft |
|--------------|-------------------------|---------------------------------|-------------------------|--------------------|------------------------------|-----------------------------|
| 560397       | 1/0                     | 0.336                           | 55                      | 0.446              | 99                           | 129                         |
| 560396       | 2/0                     | 0.376                           | 55                      | 0.486              | 125                          | 158                         |
| 560395       | 3/0                     | 0.423                           | 55                      | 0.533              | 158                          | 194                         |
| 560361       | 4/0                     | 0.475                           | 55                      | 0.585              | 199                          | 239                         |
| 560362       | 250                     | 0.520                           | 65                      | 0.650              | 235                          | 287                         |
| 562832       | 300                     | 0.570                           | 65                      | 0.700              | 282                          | 339                         |
| 560363       | 350                     | 0.616                           | 65                      | 0.746              | 329                          | 390                         |
| 560380       | 500                     | 0.736                           | 65                      | 0.866              | 471                          | 543                         |
| 563044       | 600                     | 0.813                           | 80                      | 0.973              | 565                          | 663                         |
| 560381       | 750                     | 0.908                           | 80                      | 1.068              | 706                          | 815                         |
| 560382       | 1000                    | 1.060                           | 80                      | 1.220              | 941                          | 1067                        |

All dimensions are nominal and subject to normal manufacturing tolerances

◊ Cable marked with this symbol is a standard stock item

† Ampacities are based on Table 310.16 of the NEC 2020 Edition. Ampacities of insulated conductors rated up to and including 2000 Volts with not more than three current-carrying conductors in raceway, cable or direct buried based on ambient temperature of 30°C (86°F).

**Table 2 – Electrical and Engineering Data**

| Stock Number | Cond. Size<br>AWG/Kcmil | Min Bending Radius<br>inch | Max Pull Tension<br>lb | DC Resistance @ 25°C<br>Ω/1000ft | AC Resistance @ 90°C<br>Ω/1000ft | Inductive Reactance @ 60Hz<br>Ω/1000ft | Allowable Ampacity At 60° C†<br>Amp | Allowable Ampacity At 75° C†<br>Amp | Allowable Ampacity At 90° C†<br>Amp |
|--------------|-------------------------|----------------------------|------------------------|----------------------------------|----------------------------------|--|-------------------------------------|-------------------------------------|-------------------------------------|
| 560397       | 1/0                     | 1.8                        | 634                    | 0.168                            | 0.211                            | 0.028                                  | 100                                 | 120                                 | 135                                 |
| 560396       | 2/0                     | 1.9                        | 799                    | 0.133                            | 0.167                            | 0.028                                  | 115                                 | 135                                 | 150                                 |
| 560395       | 3/0                     | 2.1                        | 1007                   | 0.105                            | 0.132                            | 0.027                                  | 130                                 | 155                                 | 175                                 |
| 560361       | 4/0                     | 2.3                        | 1270                   | 0.084                            | 0.105                            | 0.026                                  | 150                                 | 180                                 | 205                                 |
| 560362       | 250                     | 2.6                        | 1500                   | 0.071                            | 0.089                            | 0.027                                  | 170                                 | 205                                 | 230                                 |
| 562832       | 300                     | 2.8                        | 1800                   | 0.059                            | 0.075                            | 0.026                                  | 195                                 | 230                                 | 260                                 |
| 560363       | 350                     | 3.0                        | 2100                   | 0.051                            | 0.064                            | 0.026                                  | 210                                 | 250                                 | 280                                 |
| 560380       | 500                     | 3.5                        | 3000                   | 0.035                            | 0.045                            | 0.025                                  | 260                                 | 310                                 | 350                                 |
| 563044       | 600                     | 3.9                        | 3600                   | 0.030                            | 0.038                            | 0.026                                  | 285                                 | 340                                 | 385                                 |
| 560381       | 750                     | 5.3                        | 4500                   | 0.024                            | 0.031                            | 0.025                                  | 320                                 | 385                                 | 435                                 |
| 560382       | 1000                    | 6.1                        | 6000                   | 0.018                            | 0.024                            | 0.025                                  | 375                                 | 445                                 | 500                                 |

† Ampacities are based on Table 310.16 of the NEC 2020 Edition. Ampacities of insulated conductors rated up to and including 2000 Volts with not more than three current-carrying conductors in raceway, cable or direct buried based on ambient temperature of 30°C (86°F).

