# Southwire® Machine Flex® Power XLPE RW90

Type XHHW-2 600 Volts or 1000 Volts and Type RW90 600V. Rated 90°C Dry/Wet, -40°C. Flexible Bare Copper Conductors. Cross-Linked Polyethylene (XLPE) Insulation. Rated High-Heat, Flame, Moisture, Gasoline, Oil and Sunlight Resistant.




Image not to scale. See Table 1 for dimensions.

## CONSTRUCTION:

1. **Conductor:** 8 AWG - 4/0 AWG: Class K, flexible stranded, soft-drawn bare copper. 250 kcmil - 750 kcmil; Class I, flexible concentric ropelay stranded, soft-drawn bare copper
2. **Insulation:** Black, sunlight, gas, & oil resistant Cross-Linked Polyethylene (XLPE)

## APPLICATIONS AND FEATURES:

Southwire Type XHHW-2 & RW90 conductors are primarily used in conduit, cable tray or other recognized raceways for service, feeders, and branch circuit wiring as specified in the National Electric Code (NEC) and the Canadian Electrical Code (CE Code). XHHW-2 & RW90 conductors may be used at 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. Voltage rating for XHHW-2 conductors is 600 volts and 1000 volts. Voltage rating for RW90 conductors is 600 volts. Flexible bare copper stranding allows for ease of installation in locations with limited space, as well as including for use in electrical equipment for industrial facilities with harsh chemical environments, telecommunications applications and data centers.

## SPECIFICATIONS:

- ASTM B3 Soft or Annealed Copper Wire
- ASTM B172 Standard Specification for Rope-Lay-Stranded Copper Conductors Having Bunch-Stranded Copper Conductors
- UL 44 Thermoset-Insulated Wires and Cables
- UL 1685 FT4 Vertical-Tray Fire Propagation and Smoke Release Test (1/0 and Larger)
- CSA C22.2 No. 38 Thermoset-insulated wires and cables
- ICEA S-95-658 (NEMA WC70) Power Cables Rated 2000 Volts or Less for the Distribution of Electrical Energy
- **CE/RoHS-2 – The CE Marking has been applied solely to express the conformance to the material restrictions identified in the RoHS-2 (2011/65/EU) Directive**
- Made in America: Compliant with both Buy American and Buy America Act (BAA) requirements per 49 U.S.C. § 5323(j) and the Federal Transit Administration Buy America requirements per 49 C.F.R. part 661
- Sunlight Resistance


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## SAMPLE PRINT LEGEND:

### 8 AWG - 1 AWG:

SOUTHWIRE® E30117 (PLANT ID) (UL) (XX AWG) # OF STRANDS STRAND CLASS X XX mm² TYPE XHHW-2 1000V SR PRII GRII 90°C DRY OR WET -40°C VW-1 OR SIS 600V ---(CSA) LL90458 RW90 600V SR -40°C XLPE ---(NOM) – ANCE LS ---CE RoHS-2 MADE IN USA --- (MM/DD/YYYY)

### 1/0 AWG - 4/0 AWG:

SOUTHWIRE® E30117 (PLANT ID) (UL) (XX AWG) # OF STRANDS STRAND CLASS X XX mm² TYPE XHHW-2 1000V SR PRII GRII 90°C DRY OR WET -40°C FOR CT USE FT4 OR SIS 600V ---(CSA) LL90458 RW90 600V TC SR -40°C XLPE FT4 ---(NOM) – ANCE LS ---CE RoHS-2 MADE IN USA --- (MM/DD/YYYY)

### 250 kcmil - 750 kcmil:

SOUTHWIRE® E30117 (PLANT ID) (UL) (XX AWG) # OF STRANDS STRAND CLASS X XX mm² TYPE XHHW-2 1000V SR PRII GRII 90°C DRY OR WET -40°C FOR CT USE FT4 ---(CSA) LL90458 RW90 600V TC SR -40°C XLPE FT4 ---(NOM) – ANCE LS ---CE RoHS-2 MADE IN USA --- (MM/DD/YYYY)


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## Table 1 – Weights and Measurements

| Stock Number | Cond. Size | Cond. Number | Cond. Strands | Diameter Over Conductor | Insul. Thickness | Approx. OD | Approx. Weight | Jacket Color |
|---|---|---|---|---|---|---|---|---|
| | AWG/Kcmil | No. | No. | inch | mil | inch | lb/1000ft | |
| 457086 | 300 | 1 | 741 | 0.638 | 65 | 0.778 | 1020 | BK |

All dimensions are nominal and subject to normal manufacturing tolerances
◊ Cable marked with this symbol is a standard stock item
! Green insulation
^ Green with yellow stripe insulation
TBA stock codes are estimations only and actual product may vary. Please wait until a stock code is assigned to purchase connectors and/or fittings.

## Table 2 – Electrical and Engineering Data

| Cond. Size | DC Resistance @ 25°C | AC Resistance @ 90°C | Inductive Reactance | Max Pull Tension | Min Bending Radius | Allowable Ampacity At 60°C | Allowable Ampacity At 75°C | Allowable Ampacity At 90°C |
|---|---|---|---|---|---|---|---|---|
| AWG/ Kcmil | Ω/1000ft | Ω/1000ft | Ω/1000ft | lb | inch | Amp | Amp | Amp |
| 300 | 0.038 | 0.048 | 0.041 | 2400 | 3.1 | 240 | 285 | 320 |

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


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