

# Lead Free & Silicone-Free 1/C CU 600V EPR RHH/RHW-2 USE-2 CPE-TS Power Cable Royal Guard<sup>®</sup>

Power Cable 600Volt Single Conductor Copper, Lead Free Ethylene Propylene Rubber (EPR) insulation RHH/RHW-2 USE-2 Cross-Linked/Thermoset Chlorinated Polyethylene (CPE-TS) Jacket



Image not to scale. See Table 1 for dimensions.

## CONSTRUCTION:

- Conductor:** Class B compressed stranded tinned copper per ASTM B33 and ASTM B8
- Binder Tape:** Mylar Tape
- Insulation:** Lead Free Ethylene Propylene Rubber (EPR) Type RHH/RHW-2 USE-2
- Overall Jacket:** Lead Free & Silicone-Free Cross-Linked/Thermoset Chlorinated Polyethylene (CPE-TS) Jacket

## 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. For uses in Class I, II, and III, Division 2 hazardous locations per NEC Article 501 and 502. Sunlight and oil resistant.

## SPECIFICATIONS:

- ASTM B3 Standard Specification for Soft or Annealed Copper Wire
- ASTM B8 Concentric-Lay-Stranded Copper Conductors
- ASTM B33 Standard Specification for Tin-Coated Soft or Annealed Copper Wire
- UL 44 Thermoset-Insulated Wires and Cables
- UL 854 Service Entrance Cable
- UL 1685 FT4 Vertical-Tray Fire Propagation and Smoke Release Test
- 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
- IEEE 1202 FT4 Flame Test (70,000) BTU/hr Vertical Tray Test
- VW-1 (Vertical-Wire) Flame Test

## SAMPLE PRINT LEGEND:

SOUTHWIRE{R} ROYAL GUARD{R} XX AWG ({mm<sup>2</sup>}) E32071 MASTER-DESIGN {UL} RHH/RHW-2 OR USE-2 90{D}C 600V SUN RES VW-1 PRI PRII -40{D}C FT4 -- IEEE 1202 {MM/DD/YY} {SEQUENTIAL FOOTAGE MARKS} SEQ FEET

**Table 1 – Weights and Measurements**

|         |     |       |    |       |    |       |     |     |
|---------|-----|-------|----|-------|----|-------|-----|-----|
| 589496◇ | 2/0 | 0.404 | 55 | 0.514 | 45 | 0.604 | 411 | 506 |
|---------|-----|-------|----|-------|----|-------|-----|-----|



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).

^ Green Color

**Table 2 – Electrical and Engineering Data**

| Stock Number | Cond. Size | Min Bending Radius | Max Pull Tension | DC Resistance @ 25°C | AC Resistance @ 90°C | Inductive Reactance @ 60Hz | Allowable Ampacity At 60° C† | Allowable Ampacity At 75° C† | Allowable Ampacity At 90° C† |
|--------------|------------|--------------------|------------------|----------------------|----------------------|----------------------------|------------------------------|------------------------------|------------------------------|
|              | AWG/ Kcmil | inch               | lb               | Ω/1000ft             | Ω/1000ft             | Ω/1000ft                   | Amp                          | Amp                          | Amp                          |
| 589496◇      | 2/0        | 2.4                | 1065             | 0.081                | 0.102                | 0.031                      | 145                          | 175                          | 195                          |

† 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).

^ Green Color

**Size and Color**

| Size | GRN    |
|------|--------|
| 4    | 652233 |
| 2    | 594504 |
| 2/0  | 594506 |
| 4/0  | 594507 |

