# ROYAL GUARD™ CU 600V EPR Insulation Thermoset CPE-TS Jacket RHH/RHW-2. CT Rated - Sunlight Resistant - For Direct Burial - Silicone Free

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. CT Rated 1/0 and Larger - For Direct Burial - Sunlight Resistant - Oil Resistant - Silicone Free




Image not to scale. See Table 1 for dimensions.

## CONSTRUCTION:

1. **Conductor:** Class B compressed stranded tinned copper per ASTM B33 and ASTM B8
2. **Binder Tape:** Mylar Tape
3. **Insulation:** Lead Free Ethylene Propylene Rubber (EPR) Type RHH/RHW-2 USE-2
4. **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. CT Rated 1/0 and Larger - Sunlight Resistant - Oil Resistant - Silicone Free.

## SPECIFICATIONS:

- ASTM B3 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® ROYAL GUARD® XX AWG ({mm2}) E32071 {UL} RHH/RHW-2 OR USE-2 90°C 600V SUN RES VW-1 PRI PRII -40°C FT4 -- IEEE 1202 {MM/DD/YY} {SEQUENTIAL FOOTAGE MARKS} SEQ FEET


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## Table 1 – Weights and Measurements

| Cond. Size | Cond. Number | Strand Count | Diameter Over Conductor | Insul. Thickness | Dia. Over Insulation | Jacket Thickness | Approx. OD | Copper Weight | Approx. Weight | Jacket Color |
|---|---|---|---|---|---|---|---|---|---|---|
| AWG/ Kcmil | | No. of Strands | inch | mil | inch | mil | inch | lb/1000ft | lb/1000ft | |
| 600 | 1 | 61 | 0.866 | 80 | 1.026 | 65 | 1.239 | 1853 | 2200 | BK |

All dimensions are nominal and subject to normal manufacturing tolerances
◊ Cable marked with this symbol is a standard stock item
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 | 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 |
| 600 | 1 | 6.2 | 4800 | 0.018 | 0.024 | 0.039 | 420 | 475 |

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

## Size and Color

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


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