

# 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
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Southwire

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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

