

ROYAL GUARD™ CU 600V EPR Insulation Thermoset CPE-TS Jacket. RHH/RHW-2 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



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 ({mm²}) 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



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Table 1 – Weights and Measurements

Stock Number	Cond. Size	Diameter Over Conductor	Insul. Thickness	Jacket Thickness	Approx. OD	Copper Weight	Approx. Weight
	AWG/Kcmil	inch	mil	mil	inch	lb/1000ft	lb/1000ft
592004	8	0.141	45	15	0.278	50	77
589493	6	0.177	45	30	0.342	81	121
652233	4	0.225	45	30	0.300	128	176
589492	4	0.225	45	30	0.390	128	176
589491	2	0.282	45	30	0.455	204	262
594504	2	0.282	45	30	0.455	204	262
589490	1	0.322	55	45	0.536	258	346
589495◇	1/0	0.361	55	45	0.576	326	421
589496◇	2/0	0.405	55	45	0.622	410	516
594506◇	2/0	0.405	55	45	0.622	410	516
592011◇	3/0	0.456	55	45	0.663	518	631
589500◇	4/0	0.512	55	45	0.728	653	780
594507	4/0	0.512	55	45	0.728	653	780
589497◇	250	0.558	65	65	0.836	771	955
589499◇	350	0.661	65	65	0.939	1080	1291
589501◇	500	0.789	65	65	1.062	1543	1786
595421	600	0.865	80	65	1.203	1852	2159
592017◇	750	0.968	80	65	1.278	2315	2644
589488	1000	1.117	80	65	1.443	3087	3464

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	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
592004	8	1.1	132	0.653	0.786	0.052	40	50	55
589493	6	1.3	209	0.411	0.495	0.051	55	65	75
652233	4	1.5	333	0.258	0.310	0.048	70	85	95
589492	4	1.5	333	0.258	0.310	0.048	70	85	95
589491	2	1.8	530	0.162	0.195	0.045	95	115	130
594504	2	1.8	530	0.162	0.195	0.045	95	115	130
589490	1	2.1	669	0.128	0.154	0.046	110	130	145
589495◇	1/0	2.3	844	0.102	0.122	0.044	125	150	170
589496◇	2/0	2.4	1064	0.081	0.097	0.043	145	175	195
594506◇	2/0	2.5	1064	0.081	0.097	0.043	145	175	195
592011◇	3/0	2.7	1342	0.064	0.078	0.042	165	200	225
589500◇	4/0	2.9	1692	0.051	0.062	0.041	195	230	260
594507	4/0	3.0	1692	0.051	0.062	0.041	195	230	260
589497◇	250	3.3	2000	0.043	0.053	0.041	215	255	290
589499◇	350	3.7	2800	0.031	0.039	0.040	260	310	350
589501◇	500	5.3	4000	0.022	0.029	0.039	320	380	430
595421	600	6.0	4800	0.018	0.025	0.039	350	420	475
592017◇	750	6.3	6000	0.014	0.022	0.038	400	475	535
589488	1000	7.2	8000	0.011	0.018	0.037	455	545	615

† 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

