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. For uses in Class I, II, and III, Division 2 hazardous locations per NEC Article 501 and 502. 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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UPDATED: Jan. 24, 2024, 6 p.m.UTC REVISION: 1.000.008

Table 1 – Weights and Measurements

Stock Number	Cond. Size	Strand Count	Diameter Over Conductor	Min. Avg. Insul. Thickness	Jacket Thickness	Approx. OD	Copper Weight	Approx. Weight
	AWG/ Kcmil	No. of Strands	inch	mil	mil	inch	lb/1000ft	lb/1000ft
592004	8	7	0.141	45	15	0.278	50	77
589493	6	7	0.177	45	30	0.342	81	121
589492	4	7	0.225	45	30	0.390	128	176
652233	4	7	0.225	45	30	0.390	128	176
589491	2	7	0.282	45	30	0.455	204	262
594504	2	7	0.282	45	30	0.455	204	262
589490	1	19	0.322	55	45	0.536	258	346
589495◊	1/0	19	0.361	55	45	0.576	326	421
589496◊	2/0	19	0.405	55	45	0.622	410	516
594506◊	2/0	19	0.405	55	45	0.622	410	516
592011◊	3/0	19	0.456	55	45	0.663	518	631
589500◊	4/0	19	0.512	55	45	0.728	653	780
594507	4/0	19	0.512	55	45	0.728	653	780
589497◊	250	37	0.558	65	65	0.836	771	955
589499◊	350	37	0.661	65	65	0.939	1080	1291
589501◊	500	37	0.789	65	65	1.062	1543	1786
595421	600	61	0.865	80	65	1.203	1852	2159
592017◊	750	61	0.968	80	65	1.278	2315	2644
589488	1000	91	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

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Table 2 – Electrical and Engineering Data

Stock Number	Cond. Size	Min Bending Radius	Max Pull Tension	DC Resistance @ 25°C	AC Resistance @ 75°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
589492	4	1.5	333	0.258	0.310	0.048	70	85	95
652233	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	2.4	1064	0.081	0.097	0.043	145	175	195
592011◊	3/0	2.6	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	2.9	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 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.

Size and Color

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