

1/C CU 600V EPR RHH/RHW-2 USE-2 LSZH-TS Power Cable

Power Cable 600Volt Single Conductor Copper, Ethylene Propylene Rubber (EPR) insulation RHH/RHW-2 USE-2 Thermoset SOLONON® Low Smoke Zero Halogen (LSZH-TS) Jacket



Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

1. **Conductor:** Class B compressed stranded bare copper per ASTM B3 and ASTM B8
2. **Binder Tape:** Mylar Tape
3. **Insulation:** Ethylene Propylene Rubber (EPR) Type RHH/RHW-2 USE-2
4. **Overall Jacket:** Thermoset SOLONON® Low Smoke Zero Halogen (LSZH-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.

SPECIFICATIONS:

- ASTM B3 Standard Specification for Soft or Annealed Copper Wire
- ASTM B8 Concentric-Lay-Stranded Copper Conductors
- UL 44 Thermoset-Insulated Wires and Cables
- UL 1685 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

SAMPLE PRINT LEGEND:

SOUTHWIRE {UL} XXX AWG CU TYPE RHH OR RHW-2 OR USE-2 XX MILS EPR XX MILS SOLONON{R} ST1 LS FOR CT USE
SUN RES 600 VOLTS {YYYY} {SEQUENTIAL FOOTAGE MARKS} SEQ FEET



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Table 1 – Weights and Measurements

Stock Number	Cond. Size	Diameter Over Conductor	Insul. Thickness	Diameter Over Insulation	Jacket Thickness	Approx. OD	Copper Weight	Approx. Weight
	AWG/ Kcmil	inch	mil	inch	mil	inch	lb/1000ft	lb/1000ft
890660	8	0.139	45	0.229	15	0.259	51	73
890659	6	0.174	45	0.264	30	0.324	81	117
555214	4	0.221	45	0.311	30	0.371	129	172
551088	2	0.277	45	0.367	30	0.427	205	257
566010	1	0.321	55	0.431	30	0.491	258	323
561561	1/0	0.360	55	0.470	45	0.560	326	413
561560	2/0	0.404	55	0.514	45	0.604	411	507
581799	3/0	0.454	55	0.564	45	0.654	518	624
561556	4/0	0.510	55	0.620	45	0.710	653	771
561554	250	0.558	65	0.688	45	0.833	772	948
561553	350	0.661	65	0.791	65	0.921	1081	1275
890658	500	0.789	65	0.919	65	1.049	1544	1770
566011	600	0.866	80	1.026	65	1.156	1853	2121
551091	750	0.968	80	1.128	65	1.258	2316	2611
551092	1000	1.117	80	1.277	65	1.407	3088	3421

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
890660	8	1.0	132	0.652	0.815	0.036	40	50	55
890659	6	1.3	210	0.411	0.514	0.036	55	65	75
555214	4	1.5	334	0.258	0.323	0.034	70	85	95
551088	2	1.7	531	0.162	0.203	0.032	95	115	130
566010	1	2.0	670	0.129	0.161	0.031	110	130	145
561561	1/0	2.2	845	0.102	0.128	0.032	125	150	170
561560	2/0	2.4	1065	0.081	0.102	0.031	145	175	195
581799	3/0	2.6	1342	0.064	0.081	0.030	165	200	225
561556	4/0	2.8	1693	0.051	0.064	0.029	195	230	260
561554	250	3.1	2000	0.043	0.055	0.029	215	255	290
561553	350	3.7	2800	0.031	0.039	0.029	260	310	350
890658	500	5.2	4000	0.022	0.028	0.028	320	380	430
566011	600	5.8	4800	0.018	0.024	0.028	350	420	475
551091	750	6.3	6000	0.014	0.020	0.028	400	475	535
551092	1000	7.0	8000	0.011	0.016	0.027	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).

