



# TCU 600V NLEPR Insulation Thermoset LSZH-TS Jacket RHH/RHW-2/ USE-2 CT Rated - Sunlight Resistant - For Direct Burial - Silicone Free - FT4

Power Cable 600 Volt Single Conductor Tinned Copper, No Lead Ethylene Propylene Rubber (NL-EPR) insulation RHH/RHW-2/  
USE-2 Thermoset SOLONON® Low Smoke Zero Halogen (LSZH-TS) Jacket. CT Rated 1/0 and Larger - Sunlight Resistant - For  
Direct Burial - Silicone Free - FT4 Rated



Image not to scale. See Table 1 for dimensions.

## CONSTRUCTION:

1. **Conductor:** Class B compressed stranded tinned copper per ASTM B3 and ASTM B33
2. **Binder Tape:** Mylar Tape
3. **Insulation:** No Lead Ethylene Propylene Rubber (NL-EPR) Type RHH/RHW-2/USE-2
4. **Overall Jacket:** Thermoset SOLONON® Low Smoke Zero Halogen (LSZH-TS) Silicone-Free Jacket

## APPLICATIONS AND FEATURES:

Southwire's 600 Volt power cables are suited for use in wet and dry areas, conduits, ducts, direct burial, troughs, trays, 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. Rated for 1000 lbs./FT maximum sidewall pressure.

- a. NEC compliant
- b. 70,000 BTU/Hr. Vertical Flame Test
- c. UL listed for CT use on 1/0 and Larger
- d. UL listed FT4/IEEE 1202 and ST-1
- e. Oil Resistant I and II
- f. UV/Sunlight resistant black color
- g. Color Available upon request

## SPECIFICATIONS:





- ASTM B3 Soft or Annealed Copper Wire
- ASTM B33 Standard Specification for Tin-Coated Soft or Annealed Copper Wire
- UL 44 Thermoset-Insulated Wires and Cables
- 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
- NFPA 130 Standard for Fixed Guideway Transit and Passenger Rail Systems (500kcmil & Larger)

**SAMPLE PRINT LEGEND:**

{SQFTG} SOUTHWIRE® {UL} XXX KCMIL TINNED CU TYPE RHH OR RHW-2 USE-2 XX MILS NL-EPR XX MILS SOLONON® ST1 FT4 LS FOR CT USE SUN RES 600V

**Table 1 – Weights and Measurements**

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
6	19	0.177	45	30	0.333	81	113
4	19	0.225	45	30	0.381	128	166
2	19	0.282	45	30	0.438	204	249
1/0	19	0.361	55	45	0.567	325	401
2/0	19	0.405	55	45	0.611	410	494
3/0	19	0.456	55	45	0.662	518	610
4/0	19	0.512	55	45	0.718	653	754
250	37	0.558	65	65	0.824	771	919
350	37	0.661	65	65	0.927	1081	1251
500	37	0.789	65	65	1.055	1544	1741
600	61	0.865	80	65	1.161	1853	2094
750	61	0.968	80	65	1.264	2316	2582
1000	61	1.117	80	65	1.413	3088	3389

All dimensions are nominal and subject to normal manufacturing tolerances  
 ◇ Cable marked with this symbol is a standard stock item





**Table 2 – Electrical and Engineering Data**

Cond. Size	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
6	1.3	209	0.411	0.495	0.051	65	75
4	1.5	333	0.258	0.310	0.048	85	95
2	1.8	530	0.162	0.195	0.045	115	130
1/0	2.3	844	0.102	0.122	0.044	150	170
2/0	2.4	1064	0.081	0.097	0.043	175	195
3/0	2.6	1342	0.064	0.078	0.042	200	225
4/0	2.9	1692	0.051	0.062	0.041	230	260
250	3.3	2000	0.043	0.053	0.041	255	290
350	3.7	2800	0.031	0.039	0.040	310	350
500	5.3	4000	0.022	0.029	0.039	380	430
600	5.8	4800	0.018	0.025	0.039	420	475
750	6.3	6000	0.014	0.022	0.038	475	535
1000	7.1	8000	0.011	0.018	0.037	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 center-to-center.

