TCU 600V NLEPR Insulation Thermoset LSZH-TS Jacket. RHH/RHW-2 Silicone Free

Power Cable 600Volt 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

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, 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. Rated for 1000 lbs./FT maximum sidewall pressure.

SPECIFICATIONS:

- ASTM B3 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 (1/0 and Larger)
- 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{R} MASTER-DESIGN {UL} XXX KCMIL TINNED CU TYPE RHH OR RHW-2 OR USE-2 XX MILS NL-EPR XX MILS SOLONON{R} ST1 LS FOR CT USE SUN RES 600V

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
TBA	8	7	0.141	45	15	0.347	50	94
TBA	6	7	0.177	45	30	0.423	81	145
TBA	4	7	0.225	45	30	0.471	128	202
TBA	2	7	0.282	45	30	0.558	204	307
TBA	1	19	0.322	55	45	0.648	258	397
TBA	1/0	19	0.361	55	45	0.687	325	475
TBA	2/0	19	0.405	55	45	0.731	410	572
TBA	3/0	19	0.456	55	45	0.782	518	694
TBA	4/0	19	0.512	55	45	0.878	653	880
TBA	250	37	0.558	65	65	0.984	771	1061
TBA	350	37	0.661	65	65	1.087	1081	1409
674244	500	37	0.789	65	65	1.089	1543	1798
TBA	600	61	0.865	80	65	1.321	1853	2290
TBA	750	61	0.968	80	65	1.424	2316	2793
TBA	1000	61	1.117	80	65	1.573	3088	3624

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

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
TBA	8	1.3	132	0.653	0.786	0.052	40	50	55
TBA	6	1.6	209	0.411	0.495	0.051	55	65	75
TBA	4	1.8	333	0.258	0.310	0.048	70	85	95
TBA	2	2.2	530	0.162	0.195	0.045	95	115	130
TBA	1	2.5	669	0.128	0.154	0.046	110	130	145
TBA	1/0	2.7	844	0.102	0.122	0.044	125	150	170
TBA	2/0	2.9	1064	0.081	0.097	0.043	145	175	195
TBA	3/0	3.1	1342	0.064	0.078	0.042	165	200	225
TBA	4/0	3.5	1692	0.051	0.062	0.041	195	230	260
TBA	250	3.9	2000	0.043	0.053	0.041	215	255	290
TBA	350	5.4	2800	0.031	0.039	0.040	260	310	350
674244	500	5.4	4000	0.022	0.029	0.039	320	380	430
TBA	600	6.6	4800	0.018	0.025	0.039	350	420	475
TBA	750	7.1	6000	0.014	0.022	0.038	400	475	535
TBA	1000	7.8	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.