

TCU 2000V NLEPR Insulation Thermoset LSZH-TS Jacket. RHH/RHW-2

Power Cable 2000 Volt Single Conductor Copper or Tinned Copper, Ethylene Propylene Rubber (EPR) insulation RHH/RHW-2 Thermoset SOLONON® (LSZH-TS) Jacket



Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

1. **Conductor:** Stranded tinned copper per ASTM B33
2. **Binder Tape:** Mylar Tape
3. **Insulation:** Ethylene Propylene Rubber (EPR)
4. **Overall Jacket:** Cross-linked/Thermoset SOLONON® Low Smoke Zero Halogen (LSZH-TS) Jacket

APPLICATIONS AND FEATURES:

Southwire's 2000 Volt power cables are suited for use in wet and dry areas, conduits, ducts, 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.

SPECIFICATIONS:

- ASTM B8 Concentric-Lay-Stranded Copper Conductors
- ASTM B33 Standard Specification for Tin-Coated Soft or Annealed Copper Wire
- ASTM B172 Standard Specification for Rope-Lay-Stranded Copper Conductors Having Bunch-Stranded Copper Conductors
- ASTM B173 Rope-Lay-Stranded Copper Conductors Having Concentric-Stranded Members
- 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
- NFPA 130 Standard for Fixed Guideway Transit and Passenger Rail Systems (250kcmil & Larger)
- NFPA 502 Standard for Road Tunnels, Bridges, and Other Limited Access Highways



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SAMPLE PRINT LEGEND:

AWG Sizes
{SQFTG} SOUTHWIRE {UL} XX AWG or KCMIL TINNED CU TYPE RHH OR RHW-2 XX MILS EPR XX MILS SOLONON® ST1
FOR CT USE SUN RES 2000V {YYYYY}

Kcmil Sizes
{SQFTG} SOUTHWIRE® E30117 {UL} XXX KCMIL RHH OR RHW-2 XX MILS NL-EPR XX MILS SOLONON® PRI/PRII -40°C FT4
ST1 FOR CT USE SUN RES 2000V --- {CSA} 156205 XXX KCMIL RW90 XX MILS NL-EPR XX MILS SOLONON® 90°C DRY
90°C WET TC-ER 2KV -40°C PRI PRII FT4-ST1 SR

Table 1 – Weights and Measurements

Stock Number	Cond. Size	Cond. Number	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
649417	500	1	259	0.890	105	65	1.252	1579	1924

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	Cond. Number	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
649417	500	1	10.0	4000	0.022	0.029	0.039	320	380	430

* Ampacities based upon 2023 NEC Table 310.16. See NEC sections 310.15 and 110.14(C) for additional requirements.
* Inductive Reactance is based on non-ferrous conduit with one diameter spacing.