CU 600V PVC-Nylon Insulation PVC Jacket THHN/THWN-2. CT Rated - Sunlight Resistant - For Direct Burial - Silicone Free

Type TC-ER Power Cable 600Volt Three Conductor Copper, Polyvinyl Chloride (PVC) with nylon layer insulation THHN Polyvinyl Chloride (PVC) Jacket with 1 Bare CU Ground. CT Rated - Sunlight Resistant - For Direct Burial - Silicone Free

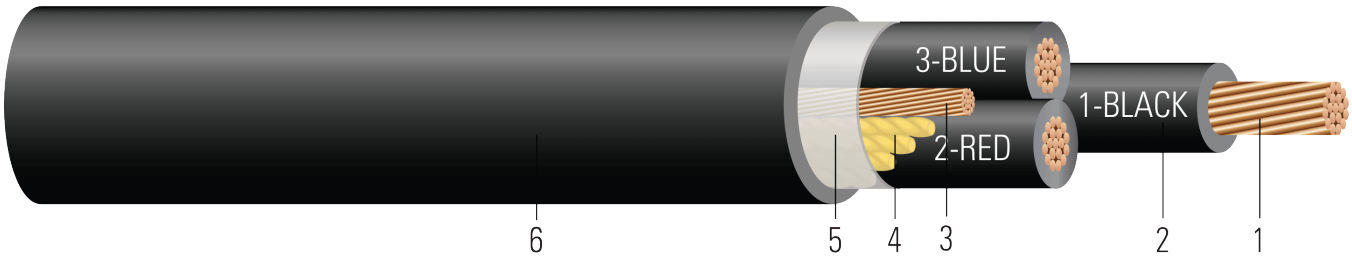


Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

1. **Conductor:** Class B compressed stranded bare copper per ASTM B3 and ASTM B8
2. **Insulation:** Polyvinyl Chloride (PVC) with nylon layer Type THHN/THWN
3. **Grounding Conductor:** Class B compressed stranded bare copper per ASTM B3 and ASTM B8 (cable size 8 & 6 has insulated green ground)
4. **Filler:** Paper filler (cable size 8 & 6 uses Polypropylene filler)
5. **Binder:** Polyester flat thread binder tape for cable sizes larger than 2 AWG
6. **Overall Jacket:** Polyvinyl Chloride (PVC) Jacket

APPLICATIONS AND FEATURES:

Southwire's 600 Volt Type TC-ER 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 75°C in wet locations and 90°C in dry locations, 105°C for emergency overload, and 150°C for short circuit conditions. For uses in Class I, II, and III, Division 2 hazardous locations per NEC Article 501 and 502. Constructions with 3 or more conductors are listed for exposed runs (TC-ER) per NEC 336.10. Sunlight Resistant - For Direct Burial - Silicone Free

SPECIFICATIONS:

- ASTM B3 Soft or Annealed Copper Wire
- ASTM B8 Concentric-Lay-Stranded Copper Conductors
- UL 83 Thermoplastic Insulated Wires and Cables
- UL 1277 Electrical Power and Control Tray Cables
- UL 1685 Vertical-Tray Fire Propagation and Smoke Release Test
- ICEA S-58-679 Control Cable Conductor Identification Method 3 (1-BLACK, 2-RED, 3-BLUE)
- ICEA S-95-658 (NEMA WC70) Power Cables Rated 2000 Volts or Less for the Distribution of Electrical Energy
- IEEE 1202 FT4 Flame Test (70,000) BTU/hr Vertical Tray Test

SAMPLE PRINT LEGEND:

{SQFTG} SOUTHWIRE® {UL} XX AWG (XX.X{mm2}) CU 3 CDRS TYPE TC-ER THHN OR THWN CDRS GW 1 X X AWG 90°C JACKET SUNLIGHT RESISTANT DIRECT BURIAL 600 VOLTS {NOM}-ANCE {YYYY}

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Table 1 – Weights and Measurements

Stock Number	Cond. Size	Cond. Number	Strand Count	Diameter Over Conductor	Insul. Thickness	Ground	Jacket Thickness	Approx. OD	Copper Weight	Approx. Weight
	AWG/ Kcmil		No. of Strands	inch	mil	No. x AWG	mil	inch	lb/1000ft	lb/1000ft
443390◊	8	3	7	0.141	30	1 x 10 GG	60	0.640	186	307
443408◊	6	3	7	0.177	30	1 x 8 GG	60	0.734	297	451
443416◊	4	3	7	0.225	40	1 x 8	60	0.804	441	618
443424◊	2	3	7	0.282	40	1 x 6	80	0.986	702	971
443432◊	1	3	19	0.322	50	1 x 6	80	1.116	864	1180
443440◊	1/0	3	19	0.361	50	1 x 6	80	1.183	1069	1406
443457◊	2/0	3	19	0.405	50	1 x 6	80	1.278	1326	1689
443465◊	3/0	3	19	0.456	50	1 x 4	80	1.386	1699	2100
443473◊	4/0	3	19	0.512	50	1 x 4	80	1.481	2109	2603
443481◊	250	3	37	0.558	60	1 x 4	80	1.659	2469	3091
443507◊	350	3	37	0.661	60	1 x 3	110	1.941	3438	4186
443523◊	500	3	37	0.789	60	1 x 2	110	2.168	4884	5733
679965	600	3	61	0.865	70	1 x 1/0	110	2.388	5942	7009
604777	600	3	61	0.865	70	1 x 2	110	2.388	5820	6784
602094◊	750	3	61	0.968	70	1 x 1	110	2.602	7277	8562

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
443390◊	8	3	2.6	396	0.653	0.786	0.052	40	50	55
443408◊	6	3	2.9	629	0.411	0.495	0.051	55	65	75
443416◊	4	3	3.2	1001	0.258	0.310	0.048	70	85	95
443424◊	2	3	3.9	1592	0.162	0.195	0.045	95	115	130
443432◊	1	3	5.6	2008	0.128	0.154	0.046	110	130	145
443440◊	1/0	3	5.9	2534	0.102	0.122	0.044	125	150	170
443457◊	2/0	3	6.4	3194	0.081	0.097	0.043	145	175	195
443465◊	3/0	3	6.9	4027	0.064	0.078	0.042	165	200	225
443473◊	4/0	3	7.4	5078	0.051	0.062	0.041	195	230	260
443481◊	250	3	8.3	6000	0.043	0.053	0.041	215	255	290
443507◊	350	3	9.7	8400	0.031	0.039	0.040	260	310	350
443523◊	500	3	13.0	12000	0.022	0.029	0.039	320	380	430
679965	600	3	14.3	14400	0.018	0.025	0.039	350	420	475
604777	600	3	14.3	14400	0.018	0.025	0.039	350	420	475
602094◊	750	3	15.6	18000	0.014	0.022	0.038	400	475	535

* Ampacities based upon 2023 NEC Table 310.16. See NEC sections 310.15 and 110.14(C) for additional requirements.