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/ THWN-2 Polyvinyl Chloride (PVC) Jacket with 1 Bare CU Ground. CT Rated - Sunlight Resistant - For Direct Burial - Silicone Free.

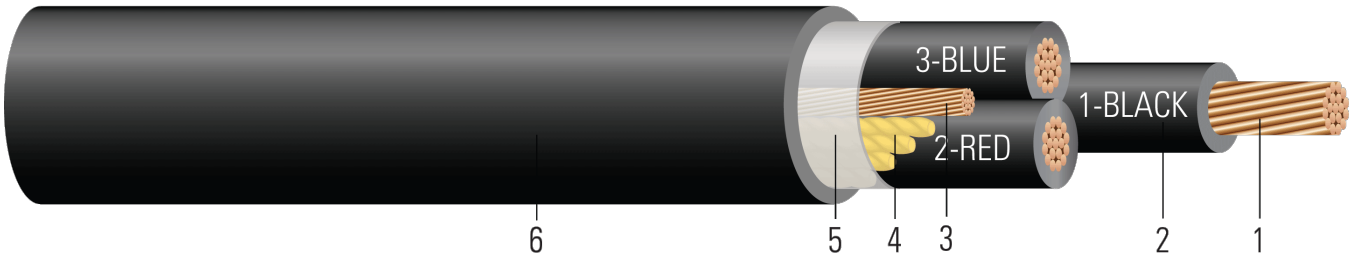


Image not to scale. See Table 1 for dimensions.

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-2
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 THHN/THWN-2 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 in dry or wet 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 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

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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}

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	Jacket Color
	AWG/ Kcmil		No. of Strands	inch	mil	No. x AWG	mil	inch	lb/1000ft	lb/1000ft	
443390◊	8	3	7	0.142	30	1 x 10	60	0.64	187	307	BK
443408◊	6	3	7	0.178	30	1 x 8	60	0.734	297	452	BK
443416◊	4	3	7	0.225	40	1 x 8	60	0.818	442	621	BK
443424◊	2	3	7	0.283	40	1 x 6	80	0.991	703	982	BK
443432◊	1	3	19	0.322	50	1 x 6	80	1.121	865	1171	BK
443440◊	1/0	3	19	0.362	50	1 x 6	80	1.197	1070	1405	BK
443457◊	2/0	3	19	0.405	50	1 x 6	80	1.292	1327	1687	BK
443465◊	3/0	3	19	0.456	50	1 x 4	80	1.4	1700	2096	BK
443473◊	4/0	3	19	0.512	50	1 x 4	80	1.495	2110	2571	BK
443481◊	250	3	37	0.558	60	1 x 4	80	1.637	2469	3034	BK
443507◊	350	3	37	0.661	60	1 x 3	110	1.911	3439	4183	BK
443523◊	500	3	37	0.789	60	1 x 2	110	2.181	4885	5726	BK
604777	600	3	61	0.866	70	1 x 2	110	2.389	5820	6788	BK
602094◊	750	3	61	0.968	70	1 x 1	110	2.665	7277	8519	BK

All dimensions are nominal and subject to normal manufacturing tolerances
◊ Cable marked with this symbol is a standard stock item
TBA stock codes are estimations only and actual product may vary. Please wait until a stock code is assigned to purchase connectors and/or fittings.

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 75°C	Allowable Ampacity At 90°C
	AWG/ Kcmil		inch	lb	Ω/1000ft	Ω/1000ft	Ω/1000ft	Amp	Amp
443390◊	8	3	2.6	396	0.653	0.81	0.052	50	55
443408◊	6	3	2.9	629	0.411	0.51	0.051	65	75
443416◊	4	3	3.3	1001	0.258	0.32	0.048	85	95
443424◊	2	3	4	1592	0.162	0.201	0.045	115	130
443432◊	1	3	5.6	2008	0.128	0.159	0.046	130	145
443440◊	1/0	3	6	2534	0.102	0.127	0.044	150	170
443457◊	2/0	3	6.5	3194	0.082	0.102	0.043	175	195
443465◊	3/0	3	7	4027	0.064	0.079	0.042	200	225
443473◊	4/0	3	7.5	5078	0.051	0.063	0.041	230	260
443481◊	250	3	8.2	6000	0.043	0.053	0.041	255	290
443507◊	350	3	9.6	8400	0.031	0.039	0.04	310	350
443523◊	500	3	13.1	12000	0.021	0.027	0.039	380	430
604777	600	3	14.3	14400	0.018	0.024	0.039	420	475
602094◊	750	3	16	18000	0.014	0.019	0.038	475	535

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

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