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

Type TC-ER Power Cable 600 Volt Four 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

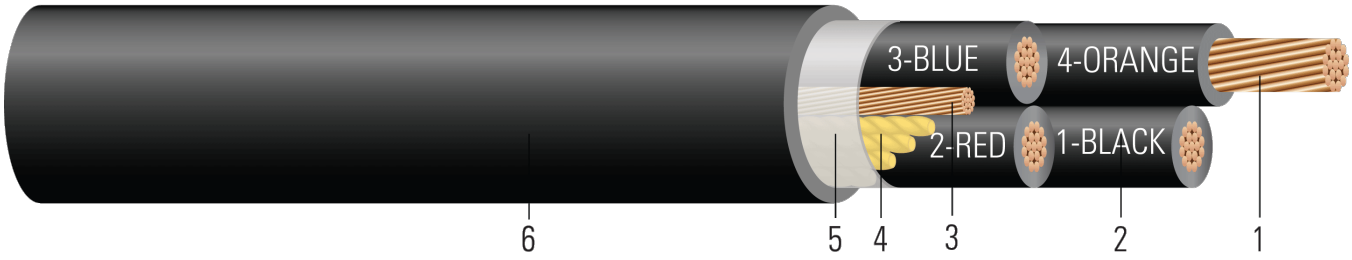


Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

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

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 90°C in wet and dry locations, 105°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. 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, 4-ORANGE)
- ICEA S-95-658 (NEMA WC70) Power Cables Rated 2000 Volts or Less for the Distribution of Electrical Energy

SAMPLE PRINT LEGEND:

SOUTHWIRE® {UL} XX AWG (XX.X{mm2}) CU 4 CDRS TYPE TC-ER THHN OR THWN-2 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	Jacket Color
	AWG/ Kcmil		No. of Strands	inch	mil	No. x AWG	mil	inch	lb/1000ft	lb/1000ft	
557694◊	8	4	7	0.142	30	1 x 10	60	0.701	238	383	BK
553438◊	6	4	7	0.178	30	1 x 8	60	0.8	379	564	BK
601989◊	4	4	7	0.225	40	1 x 8	80	0.948	572	851	BK
601997◊	2	4	7	0.283	40	1 x 6	80	1.088	910	1226	BK
602003	1	4	19	0.322	50	1 x 6	80	1.233	1126	1528	BK
554568◊	1/0	4	19	0.362	50	1 x 6	80	1.319	1399	1829	BK
556720◊	2/0	4	19	0.405	50	1 x 6	80	1.425	1742	2218	BK
602029◊	3/0	4	19	0.456	50	1 x 4	80	1.546	2223	2765	BK
444745◊	4/0	4	19	0.512	50	1 x 4	80	1.652	2770	3284	BK
602045◊	250	4	37	0.558	60	1 x 4	110	1.871	3249	4043	BK
602060◊	350	4	37	0.661	60	1 x 3	110	2.11	4530	5408	BK
TBA	400	4	37	0.706	70	1 x 3	110	2.273	5152	5958	BK
552513◊	500	4	37	0.789	60	1 x 2	110	2.412	6444	7441	BK
593375	500	4	37	0.789	60	1 x 250	110	2.485	7017	8022	BK
604819	600	4	61	0.866	70	1 x 2	110	2.644	7691	8900	BK
456241	600	4	61	0.866	70	1 x 1/0	115	2.656	7813	9059	BK
604827	750	4	61	0.968	70	1 x 1	140	2.998	9616	11403	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.

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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
557694◊	8	4	2.8	528	0.653	0.81	0.052	40	44
553438◊	6	4	3.2	839	0.411	0.51	0.051	52	60
601989◊	4	4	3.8	1335	0.258	0.32	0.048	68	76
601997◊	2	4	5.4	2123	0.162	0.201	0.045	92	104
602003	1	4	6.2	2678	0.128	0.159	0.046	104	116
554568◊	1/0	4	6.6	3379	0.102	0.127	0.044	120	136
556720◊	2/0	4	7.1	4259	0.082	0.102	0.043	140	156
602029◊	3/0	4	7.7	5369	0.064	0.079	0.042	160	180
444745◊	4/0	4	8.3	6771	0.051	0.063	0.041	184	208
602045◊	250	4	9.4	8000	0.043	0.053	0.041	204	232
602060◊	350	4	12.7	11200	0.031	0.039	0.04	248	280
TBA	400	4	13.6	12800	0.027	0.035	0.04	268	304
552513◊	500	4	14.5	16000	0.021	0.027	0.039	304	344
593375	500	4	14.9	16000	0.021	0.027	0.039	304	344
604819	600	4	15.9	19200	0.018	0.024	0.039	336	380
456241	600	4	15.9	19200	0.018	0.024	0.039	336	380
604827	750	4	18	24000	0.014	0.019	0.038	380	428

***** Ampacities based upon 2023 NEC Table 310.16. See NEC sections 310.15 and 110.14(C) for additional requirements.
***** Ampacities have been adjusted for more than Three Current-Carrying Conductors.

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