3/C CU 600V PVC THHN PVC Jacket Power Cable With Ground. 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. Silicone Free

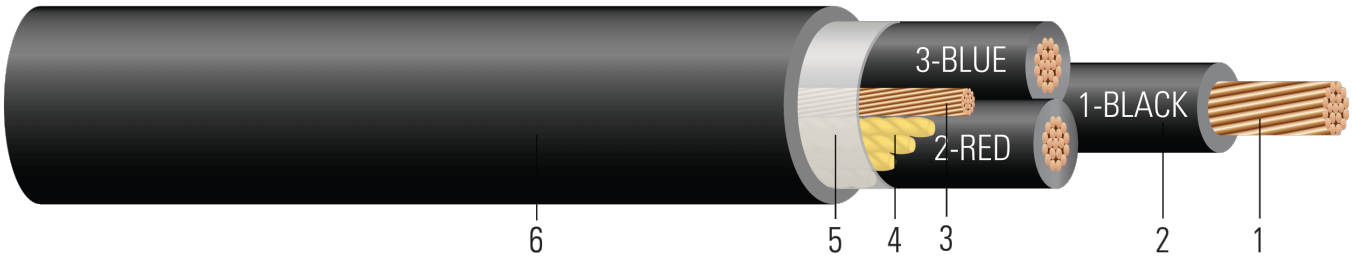

Image not to scale. See Table 1 for dimensions.

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. Silicone Free

SPECIFICATIONS:

- ASTM B3 Standard Specification for 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-95-658 (NEMA WC70) Power Cables Rated 2000 Volts or Less for the Distribution of Electrical Energy

SAMPLE PRINT LEGEND:

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

Table 1 – Weights and Measurements

Stock Number	Cond. Size	Diameter Over Conductor	Insul. Thickness	Diameter Over Insulation	Ground	Jacket Thickness	Approx. OD	Copper Weight	Approx. Weight
	AWG/ Kcmil	inch	mil	inch	No. x AWG	mil	inch	lb/1000ft	lb/1000ft
443390◊	8	0.139	35	0.199	1 x 10	45	0.542	187	283
443408◊	6	0.174	35	0.234	1 x 8	60	0.648	297	435
443416◊	4	0.221	46	0.301	1 x 8	60	0.795	442	625
443424◊	2	0.277	46	0.357	1 x 6	80	0.958	703	964
443432◊	1	0.321	57	0.421	1 x 6	80	1.100	865	1191
443440◊	1/0	0.360	57	0.460	1 x 6	80	1.184	1069	1432
443457◊	2/0	0.404	57	0.504	1 x 6	80	1.279	1327	1732
443465◊	3/0	0.454	57	0.554	1 x 4	80	1.387	1700	2156
443473◊	4/0	0.510	57	0.610	1 x 4	80	1.508	2110	2624
443481◊	250	0.558	68	0.678	1 x 4	80	1.659	2469	3076
443507◊	350	0.661	68	0.781	1 x 3	110	1.942	3440	4272
443523◊	500	0.789	68	0.909	1 x 2	110	2.218	4885	5888
679965	600	0.866	79	1.006	1 x 1/0	110	2.432	5942	7065
604777	600	0.866	79	1.006	1 x 2	110	2.432	5822	6992
602094◊	750	0.968	79	1.108	1 x 1	110	2.652	7278	8599

All dimensions are nominal and subject to normal manufacturing tolerances

◊ Cable marked with this symbol is a standard stock item

† Ampacities are based on Table 310.16 of the NEC 2020 Edition. Ampacities of insulated conductors rated up to and including 2000 Volts with not more than three current-carrying conductors in raceway, cable or direct buried based on ambient temperature of 30ºC (86ºF). Ampacities have been adjusted for more than three current-carrying conductors based on Table 310.15(C) 1.

Table 2 – Electrical and Engineering Data

Stock Number	Cond. Size	Min Bending Radius	Max Pull Tension	DC Resistance @ 25°C	AC Resistance @ 90°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	2.2	396	0.652	0.815	0.030	40	50	55
443408◊	6	2.6	630	0.411	0.514	0.028	55	65	75
443416◊	4	3.2	1002	0.258	0.323	0.029	70	85	95
443424◊	2	3.8	1593	0.162	0.203	0.028	95	115	130
443432◊	1	5.5	2009	0.129	0.162	0.028	110	130	145
443440◊	1/0	5.9	2534	0.102	0.128	0.027	125	150	170
443457◊	2/0	6.4	3194	0.081	0.102	0.027	145	175	195
443465◊	3/0	6.9	4027	0.064	0.081	0.026	165	200	225
443473◊	4/0	7.5	5078	0.051	0.064	0.026	195	230	260
443481◊	250	8.3	6000	0.043	0.055	0.026	215	255	290
443507◊	350	9.7	8400	0.031	0.040	0.026	260	310	350
443523◊	500	13.3	12000	0.022	0.029	0.025	320	380	430
679965	600	14.6	14400	0.018	0.025	0.025	350	420	475
604777	600	14.6	14400	0.018	0.025	0.025	350	420	475
602094◊	750	15.9	18000	0.014	0.020	0.025	400	475	535

† Ampacities are based on Table 310.16 of the NEC 2020 Edition. Ampacities of insulated conductors rated up to and including 2000 Volts with not more than three current-carrying conductors in raceway, cable or direct buried based on ambient temperature of 30ºC (86ºF). Ampacities have been adjusted for more than three current-carrying conductors based on Table 310.15(C) 1.