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

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

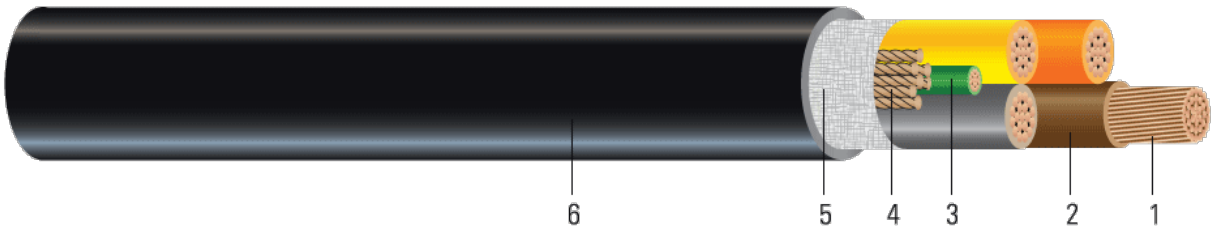


Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

1. **Conductor:** Class C compressed stranded bare copper per ASTM B3 and ASTM B8
2. **Insulation:** Polyvinyl Chloride (PVC) with nylon layer Type THHN/THWN. Colors: Gray, Brown, Orange, Yellow.
3. **Grounding Conductor:** Green insulated THHN Class C compressed stranded bare copper per ASTM B3 and ASTM B8
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 flexible power cables are made with class C copper stranding for extra flexibilty 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 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 FT4 Vertical-Tray Fire Propagation and Smoke Release Test
- ICEA S-93-639 (NEMA WC 74) 5-46 KV Shielded Power Cable
- ICEA S-95-658 (NEMA WC70) Power Cables Rated 2000 Volts or Less for the Distribution of Electrical Energy
- IEEE 1202 FT4 Vertical Tray Flame Test (70,000 Btu/hr) and ICEA T-29-520 - (210,000 Btu/hr)

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Table 1 – Weights and Measurements

Stock Number	Cond. Size	Cond. Number	Strand Count	Diameter Over Conductor	Insul. Thickness	Insulation Color	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	
TBA	8	4	19	0.143	35	BN,OE,YW,GY	1 x 10	60	0.641	238	343	BK
TBA	6	4	19	0.179	35	BN,OE,YW,GY	1 x 8	60	0.729	378	502	BK
669367	4	4	19	0.226	40	BN,OE,YW,GY	1 x 8	80	1.019	572	864	BK
643697	2	4	19	0.286	40	BN,OE,YW,GY	1 x 6	80	1.158	909	1243	BK
TBA	1	4	37	0.333	60	BN,OE,YW,GY	1 x 6	80	1.262	1123	1457	BK
TBA	1/0	4	37	0.374	60	BN,OE,YW,GY	1 x 6	80	1.361	1398	1764	BK
TBA	2/0	4	37	0.42	60	BN,OE,YW,GY	1 x 6	80	1.473	1741	2142	BK
TBA	3/0	4	37	0.471	60	BN,OE,YW,GY	1 x 4	80	1.596	2221	2661	BK
TBA	4/0	4	37	0.529	60	BN,OE,YW,GY	1 x 4	110	1.797	2767	3345	BK
TBA	250	4	61	0.576	70	BN,OE,YW,GY	1 x 4	110	1.959	3247	3928	BK
TBA	350	4	61	0.681	70	BN,OE,YW,GY	1 x 3	110	2.213	4530	5312	BK
TBA	500	4	61	0.815	70	BN,OE,YW,GY	1 x 2	110	2.537	6442	7353	BK
TBA	750	4	91	0.999	80	BN,OE,YW,GY	1 x 1	140	3.091	9614	10957	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
TBA	8	4	2.6	528	0.653	0.81	0.052	40	44
TBA	6	4	2.9	839	0.411	0.51	0.051	52	60
669367	4	4	5.1	1335	0.258	0.32	0.048	68	76
643697	2	4	5.8	2123	0.162	0.201	0.045	92	104
TBA	1	4	6.3	2678	0.128	0.159	0.046	104	116
TBA	1/0	4	6.8	3379	0.102	0.127	0.044	120	136
TBA	2/0	4	7.4	4259	0.082	0.102	0.043	140	156
TBA	3/0	4	8	5369	0.064	0.079	0.042	160	180
TBA	4/0	4	9	6771	0.051	0.063	0.041	184	208
TBA	250	4	9.8	8000	0.043	0.053	0.041	204	232
TBA	350	4	13.3	11200	0.031	0.039	0.04	248	280
TBA	500	4	15.2	16000	0.021	0.027	0.039	304	344
TBA	750	4	18.5	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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