TCU 600/1000V EPR Insulation XHHW-2 Thermoplastic CPE-TP Jacket. CT Rated - Sunlight Resistant - For Direct Burial - Silicone Free

Type TC-ER Power Cable, 600/1000 Volt, Three Conductor Tinned Copper, Ethylene Propylene Rubber (EPR) Insulation XHHW-2, Thermoplastic Chlorinated Polyethylene (CPE) Jacket with 1 Tinned Copper 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 tinned copper per ASTM B8 and B33
2. **Insulation:** Ethylene Propylene Rubber (EPR) Type XHHW-2
3. **Grounding Conductor:** Class B compressed stranded tinned copper per ASTM B8 and B33
4. **Overall Jacket:** Thermoplastic Chlorinated Polyethylene (CPE-TP)

APPLICATIONS AND FEATURES:

Southwire's 600/1000 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 for normal operation in wet and dry locations, 130°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
- ASTM B33 Standard Specification for Tin-Coated Soft or Annealed Copper Wire
- UL 44 Thermoset-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-58-679 Control Cable Conductor Identification Method 4
- 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® ROYAL™ E75755 {UL} X AWG or KCMIL (XX.X{MM2}) 3/C EPR/CPE TYPE TC-ER EPR XHHW-2 CDRS GW 1 X X AWG 600/1000V 90°C DRY/ 90°C WET OIL RES I SUNLIGHT RESISTANT DIRECT BURIAL FT4/IEEE 1202 -- {NOM}-ANCE EPR/CPE Tipo XHHW-2 SR FT4 600/1000V 90°C USA

Copyright © 2026 Southwire Company, LLC. All Rights Reserved

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	
591981◊	8	3	7	0.142	45	1 x 10	60	0.647	187	308	BK
591983◊	6	3	7	0.178	45	1 x 8	60	0.724	297	442	BK
591985◊	4	3	7	0.225	45	1 x 8	60	0.853	442	634	BK
591987◊	2	3	7	0.283	45	1 x 6	80	0.978	703	930	BK
591989◊	1	3	19	0.322	55	1 x 6	80	1.162	865	1199	BK
591991◊	1/0	3	19	0.362	55	1 x 6	80	1.216	1070	1407	BK
591993◊	2/0	3	19	0.405	55	1 x 6	80	1.329	1327	1720	BK
591995	3/0	3	19	0.456	55	1 x 4	80	1.437	1700	2128	BK
591996◊	4/0	3	19	0.512	55	1 x 4	80	1.558	2110	2580	BK
591998◊	250	3	37	0.558	65	1 x 4	110	1.755	2469	3092	BK
592000◊	350	3	37	0.661	65	1 x 3	110	1.99	3439	4168	BK
674038	500	3	37	0.789	65	1 x 3/0	110	2.224	5201	5977	BK
592002	500	3	37	0.789	65	1 x 2	115	2.226	4885	5681	BK
671342	600	3	61	0.866	80	1 x 4/0	135	2.516	6273	8101	BK
TBA	750	3	61	0.968	80	1 x 1	110	2.662	7275	8218	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
591981◊	8	3	2.6	396	0.653	0.81	0.052	50	55
591983◊	6	3	2.9	629	0.411	0.51	0.051	65	75
591985◊	4	3	3.4	1001	0.258	0.32	0.048	85	95
591987◊	2	3	3.9	1592	0.162	0.201	0.045	115	130
591989◊	1	3	5.8	2008	0.128	0.159	0.046	130	145
591991◊	1/0	3	6.1	2534	0.102	0.127	0.044	150	170
591993◊	2/0	3	6.6	3194	0.082	0.102	0.043	175	195
591995	3/0	3	7.2	4027	0.064	0.079	0.042	200	225
591996◊	4/0	3	7.8	5078	0.051	0.063	0.041	230	260
591998◊	250	3	8.8	6000	0.043	0.053	0.041	255	290
592000◊	350	3	10	8400	0.031	0.039	0.04	310	350
674038	500	3	13.3	12000	0.021	0.027	0.039	380	430
592002	500	3	13.4	12000	0.021	0.027	0.039	380	430
671342	600	3	15.1	14400	0.018	0.024	0.039	420	475
TBA	750	3	16	18000	0.014	0.019	0.038	475	535

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

Copyright © 2026 Southwire Company, LLC. All Rights Reserved