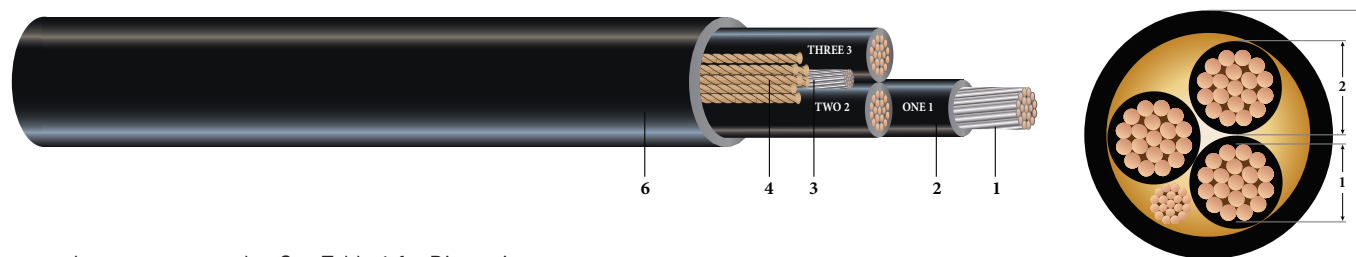


## 3/C CU 600V EPR XHHW-2 CPE Power Cable Type TC-ER

Type TC-ER Power Cable 600Volt Three Conductor Copper, Ethylene Propylene Rubber (EPR) insulation XHHW-2 Chlorinated Polyethylene (CPE) Jacket with 1 Tinned CU Ground



Images not to scale. See Table 1 for Dimensions

### CONSTRUCTION:

1. **Conductor:** Class B compressed stranded tinned copper per ASTM B33 and ASTM B8
2. **Insulation:** Ethylene Propylene Rubber (EPR) Type XHHW-2
3. **Grounding Conductor:** Class B compressed stranded tinned copper per ASTM B33 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:** Chlorinated Polyethylene (CPE) 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 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. Sun light resistant.

### SPECIFICATIONS:

- ASTM B33 Tinned Soft or Annealed Copper
- ASTM B8 Concentric-lay-standard copper
- UL 44 Thermoset Insulated wires And cables
- UL 1277 Electrical Power And Control Cable
- UL 1685 - Flame Test
- UL 1581 - Electrical Wires, Cables and Flexible Cords
- IEEE 1202/FT4 - Vertical Tray Flame Test (70,000 Btu/hr)
- 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

### SAMPLE PRINT LEGEND:

SOUTHWIRE EXXXXX #P# (UL) [#AWG Or #kcmil] CU XHHW-2 EPR/CPE 600V Type TC-ER For CT USE SUN. RES. For DIRECT BURIAL FT4 YEAR (NESC) [SEQUENTIAL FEET MARKS]



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Table 1 – Weights &amp; Measurements

Stock Code	Cond. Size	Dia Over Cond. (1)	Insul. Thickness	Dia Over Insul. (2)	Ground	Jacket Thickness	Approx. OD (6)	Copper Weight	Approx. Weight
	AWG	inches	inches	inches	No. x AWG	mils	inches	lbs./MFT	lbs./MFT
591981 <sup>◇</sup>	8	0.139	45	0.229	1 x 10	60	0.615	187	319
591983 <sup>◇</sup>	6	0.174	45	0.264	1 x 8	60	0.691	297	458
591985 <sup>◇</sup>	4	0.221	45	0.311	1 x 8	60	0.791	442	624
591987 <sup>◇</sup>	2	0.277	45	0.367	1 x 6	80	0.953	703	965
591989 <sup>◇</sup>	1	0.321	55	0.431	1 x 6	80	1.091	865	1188
591991 <sup>◇</sup>	1/0	0.360	55	0.470	1 x 6	80	1.175	1069	1428
591993 <sup>◇</sup>	2/0	0.404	55	0.514	1 x 6	80	1.270	1327	1728
591995	3/0	0.454	55	0.564	1 x 4	80	1.378	1700	2150
591996 <sup>◇</sup>	4/0	0.510	55	0.620	1 x 4	80	1.499	2110	2617
591998 <sup>◇</sup>	250	0.558	65	0.688	1 x 4	80	1.646	2469	3063
592000 <sup>◇</sup>	350	0.661	65	0.791	1 x 3	110	1.929	3440	4263
592002	500	0.789	65	0.919	1 x 2	110	2.205	4885	5877
TBA	750	0.968	80	1.128	1 x 1	110	2.656	7278	8617

All dimensions are nominal and subject to normal manufacturing tolerances

<sup>◇</sup> Standard stock item

Table 2 – Electrical and Engineering Data

Stock Code	Cond. Size AWG	Min. Bending Radius Inches	Max. Pull Tension lbs.	Resistance		Reactance $X_L$ @ 60Hz Ω/MFT	Ø Short Circuit Current 6 Cycles Amps	Allowable Ampacities <sup>†</sup>		
				DC @ 25°C Ω/MFT	AC @ 90°C Ω/MFT			60 °C Amps	75 °C Amps	90 °C Amps
591981 <sup>◇</sup>	8	2.5	396	0.652	0.815	0.033	3754	40	50	55
591983 <sup>◇</sup>	6	2.8	630	0.411	0.514	0.031	5966	55	65	75
591985 <sup>◇</sup>	4	3.2	1002	0.258	0.323	0.030	9491	70	85	95
591987 <sup>◇</sup>	2	3.8	1593	0.162	0.203	0.028	15089	95	115	130
591989 <sup>◇</sup>	1	5.5	2009	0.129	0.162	0.028	19029	110	130	145
591991 <sup>◇</sup>	1/0	5.9	2534	0.102	0.128	0.028	24011	125	150	170
591993 <sup>◇</sup>	2/0	6.4	3194	0.081	0.102	0.027	30264	145	175	195
591995	3/0	6.9	4027	0.064	0.081	0.027	38154	165	200	225
591996 <sup>◇</sup>	4/0	7.5	5078	0.051	0.064	0.026	48114	195	230	260
591998 <sup>◇</sup>	250	8.2	6000	0.043	0.055	0.027	56845	215	255	290
592000 <sup>◇</sup>	350	9.6	8400	0.031	0.040	0.026	79583	260	310	350
592002	500	13.2	12000	0.022	0.029	0.025	113690	320	380	430
TBA	750	15.9	18000	0.014	0.020	0.025	170535	400	475	535

<sup>†</sup> Ampacities are based on Table 310.15 (B)(16) of the NEC, 2014 Edition. Ampacities of insulated conductors rated up to and including 2000 Volts, based on ambient temperature of 30°C (86°F)

