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

Type TC-ER Control Cable, 600/100 Volt, Tinned Copper Conductors, Ethylene Propylene Rubber (EPR) Insulation XHHW-2, Thermoplastic Chlorinated Polyethylene (CPE-TP) Jacket, Control Cable Conductor Identification Method 1 Table 1, CT Rated, Sunlight Resistant, Oil Resistant, For Direct Burial, VW-1 Rated, Silicone Free

Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

1. **Conductor:** 7-strand class B compressed tinned copper per ASTM B33 and B8
2. **Insulation:** Ethylene Propylene Rubber (EPR) Type XHHW-2
3. **Overall Jacket:** Thermoplastic Chlorinated Polyethylene (CPE-TP)

APPLICATIONS AND FEATURES:

Southwire's 600/100 Volt Type TC-ER control 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. Constructions with 2 conductors are rated TC. VW-1 rated. Sunlight Resistant. Oil 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 44 VW-1 Vertical flame test on individual conductors
- 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 1 Table 1
- ICEA S-73-532 Standard for Control, Thermocouple Extension and Instrumentation Cables
- 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® XX AWG (X.XX{MM2}) X/C EPR/CPE TYPE TC-ER XHHW-2 CDRS E75755 {UL} 600V/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 600V/1000V 90°C USA

Table 1 – Physical and Electrical Data

Stock Number	Cond. Size	Cond. Number	Cond. Strands	Insul. Thickness	Jacket Thickness	Approx. OD	Copper Weight	Approx. Weight	DC Resistance @ 25°C	AC Resistance @ 75°C	Inductive Rectance	Min Bending Radius	Allowable Ampacity 75°C	Allowable Ampacity 90°C	Jacket Color
	AWG	No.	strands	mil	mil	inch	lb / 1000ft	lb / 1000ft	Ω /1000ft	Ω /1000ft	Ω/1000ft	inch	Amp	Amp	
14 AWG															
TBA	14	2	7	30	45	0.352	38	80	2.631	3.170	0.058	1.4	20	25	Black
599457	14	3	7	30	45	0.388	37	86	2.631	3.170	0.058	1.6	20	25	Black
599458	14	4	7	30	45	0.423	50	107	2.631	3.170	0.058	1.7	16	20	Black
599459	14	5	7	30	45	0.461	62	129	2.631	3.170	0.058	1.8	16	20	Black
595479	14	7	7	30	45	0.502	87	170	2.631	3.170	0.058	2.0	14	17	Black
599460	14	9	7	30	60	0.616	112	232	2.631	3.170	0.058	2.5	14	17	Black
599461	14	12	7	30	60	0.692	150	299	2.631	3.170	0.058	2.8	10	12	Black
TBA	14	15	7	30	60	0.734	204	358	2.631	3.170	0.058	2.9	10	12	Black
595475	14	19	7	30	60	0.804	237	434	2.631	3.170	0.058	3.2	10	12	Black
TBA	14	25	7	30	80	0.942	332	591	2.631	3.170	0.058	3.8	9	11	Black
TBA	14	30	7	30	80	0.995	396	688	2.631	3.170	0.058	4.0	9	11	Black
TBA	14	37	7	30	80	1.072	486	825	2.631	3.170	0.058	5.4	8	10	Black
12 AWG															
595635	12	2	7	30	45	0.466	40	86	1.662	2.002	0.054	1.9	25	30	Black
595472	12	3	7	30	45	0.466	61	115	1.662	2.002	0.054	1.9	25	30	Black
595636	12	4	7	30	45	0.466	81	148	1.662	2.002	0.054	1.9	20	24	Black
592111	12	5	7	30	45	0.543	101	198	1.662	2.002	0.054	2.2	20	24	Black
TBA	12	7	7	30	60	0.566	162	263	1.662	2.002	0.054	2.3	17	21	Black
596919	12	9	7	30	60	0.589	183	319	1.662	2.002	0.054	2.4	17	21	Black
595477	12	12	7	30	60	0.754	244	410	1.662	2.002	0.054	3.0	12	15	Black
TBA	12	15	7	30	60	0.819	325	502	1.662	2.002	0.054	3.3	12	15	Black
TBA	12	19	7	30	80	0.902	406	646	1.662	2.002	0.054	3.6	12	15	Black
TBA	12	25	7	30	80	1.050	528	826	1.662	2.002	0.054	5.3	11	13	Black
TBA	12	30	7	30	80	1.111	630	967	1.662	2.002	0.054	5.6	11	13	Black
TBA	12	37	7	30	80	1.198	772	1163	1.662	2.002	0.054	6.0	10	12	Black
10 AWG															
595632	10	2	7	30	45	0.466	64	116	1.040	1.253	0.050	1.9	35	40	Black
595556	10	3	7	30	45	0.478	97	161	1.040	1.253	0.050	1.9	35	40	Black
595633	10	4	7	30	45	0.556	129	223	1.040	1.253	0.050	2.2	28	32	Black
TBA	10	5	7	30	60	0.589	193	291	1.040	1.253	0.050	2.4	28	32	Black
TBA	10	7	7	30	60	0.641	258	376	1.040	1.253	0.050	2.6	24	28	Black
TBA	10	9	7	30	60	0.747	323	468	1.040	1.253	0.050	3.0	24	28	Black
645726	10	12	7	30	80	0.899	388	617	1.040	1.253	0.050	3.6	17	20	Black
TBA	10	15	7	30	80	0.977	517	764	1.040	1.253	0.050	3.9	17	20	Black
TBA	10	19	7	30	80	1.027	646	929	1.040	1.253	0.050	5.1	17	20	Black
TBA	10	25	7	30	80	1.200	840	1193	1.040	1.253	0.050	6.0	15	18	Black
TBA	10	30	7	30	80	1.271	1002	1401	1.040	1.253	0.050	6.4	15	18	Black
TBA	10	37	7	30	80	1.373	1228	1693	1.040	1.253	0.050	6.9	14	16	Black

All dimensions are nominal and subject to normal manufacturing tolerances

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◊ Cable marked with this symbol is a standard stock item

***** Ampacities based upon 2023 NEC Table 310.16 and do not take into account the overcurrent protection limitations in NEC 240.4(D) of 15 Amps for 14 AWG CU, 20 Amps for 12 AWG CU, and 30 Amps for 10 AWG CU (independent of the conductor temperature rating and stranding if size is present in table). Also, see NEC sections 310.15 and 110.14(C) for additional requirements.

***** Ampacities have been adjusted for more than Three Current-Carrying Conductors.

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.