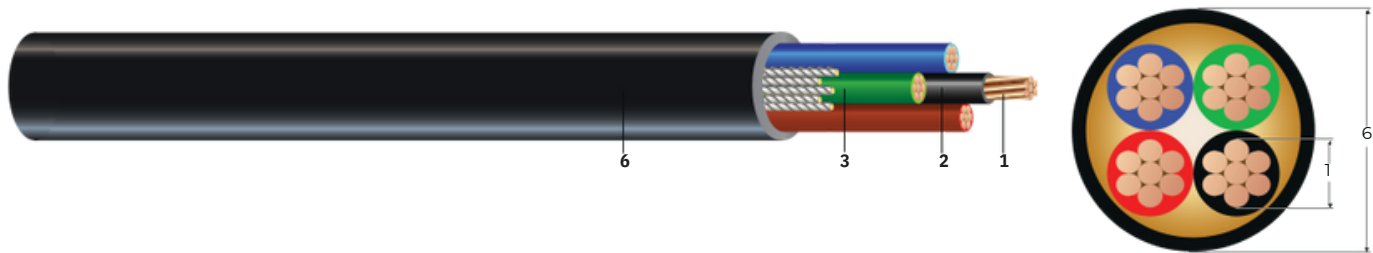


## CU 600V XLPE XHHW-2 PVC Control Cable Type TC-ER

Type TC-ER Control Cable 600Volt Copper Conductors, Cross Linked Polyethylene (XLPE) Insulation XHHW-2 Polyvinyl Chloride (PVC) Jacket with 1 Insulated Green CU Ground, Control Cable Conductor Identification Method 1 Table 2



Images not to scale. See Table for Dimensions

### CONSTRUCTION:

1. **Conductor:** 7 strands class B compressed bare copper per ASTM B3 and ASTM B8
2. **Insulation:** Cross Linked Polyethylene (XLPE) XHHW-2, 30 Mils thick for all cable sizes
3. **Grounding Conductor** : Class B compressed stranded copper with green insulation
4. **Filler:** Polypropylene filler on cables with 5 or less conductors
5. **Binder** : Polyester flat thread binder tape applied for cables with more than 5 conductors
6. **Overall Jacket** : Polyvinyl Chloride (PVC) Jacket

### APPLICATIONS AND FEATURES:

Southwire's 600 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.

### SPECIFICATIONS:

- ASTM B3 - Soft or annealed copper
- ASTM B8 - Concentric-lay-strandard copper
- UL 44 - Thermoset Insulated wires and cables
- UL 1277 - Electrical Power and Control Cable, VW-1
- UL 1685 - Flame Test
- UL 1581 - Electrical Wires, Cables and Flexible Cords
- IEEE 1202/FT4 - Vertical Tray Flame Test (70,000 Btu/hr) and ICEA T-29-520 - (210,000 Btu/hr)
- ICEA S-73-532 - Standard for Control, Thermocouple Extension and Instrumentation Cables
- ICEA S-58-679 - Control Cable Conductor Identification Method 1 Table 2
- ICEA S-95-658 NEMA WC70 - Power cables rated 2000 volts or less for the distribution of electrical energy

### SAMPLE PRINT LEGEND:

SOUTHWIRE EXXXX #P# (UL) [#AWG Or #kcmil] CU XHHW-2 XLPE/PVC 600V Type TC-ER For CT USE SUN. RES. For DIRECT BURIAL FT4 VW-1 YEAR (NESC) [SEQUENTIAL FEET MARKS]

Measurements and Electrical Data

#16 AWG

Stock Code	Cond. Number	Dia. Over Cond. (1)	Ground No. xAWG	Jacket Thickness mils	Approx. OD (6) inches	Copper Weight lbs./MFT	Approx. Weight lbs./MFT	Min Bending Radius inches	DC Resis. @ 250C Ω/MFT	AC Resis @ 900C Ω/MFT	Allowable Ampacities*
		inches									Amps
TBA	3	0.056	1 x 16	45	0.371	32	83	1.5	4.180	5.226	10/10/1
TBA	4	0.056	1 x 16	45	0.404	40	100	1.6	4.180	5.226	0

10/10/1  
0

Measurements and Electrical Data

#14 AWG

Stock Code	Cond. Number	Dia. Over Cond. (1)	Ground No. xAWG	Jacket Thickness mils	Approx. OD (6) inches	Copper Weight lbs./MFT	Approx. Weight lbs./MFT	Min Bending Radius inches	DC Resis. @ 250C Ω/MFT	AC Resis @ 900C Ω/MFT	Allowable Ampacities*
		inches									Amps
955831 ◊	3	0.070	1 x 14	45	0.403	51	109	1.6	2.630	3.288	14/15/1
955823 ◊	4	0.070	1 x 14	45	0.440	64	132	1.8	2.630	3.288	5

All dimensions are nominal and subject to normal manufacturing tolerance.

\* 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) and assuming ground is also carrying current.

◊ Standard stock item

14/15/1  
5



Measurements and Electrical Data

#12 AWG

Stock Code	Cond. Number	Dia. Over Cond. (1)	Ground	Jacket Thickness	Approx. OD (6)	Copper Weight	Approx. Weight	Min Bending Radius	DC Resis. @ 250C	AC Resis @ 900C	Allowable Ampacities*
		inches									No.xAWG
955930 ◊	3	0.087	1 x 12	45	0.445	81	148	1.8	1.660	2.075	16/20/2
955948 ◊	4	0.087	1 x 12	45	0.487	102	181	1.9	1.660	2.075	0

16/20/2  
0

Measurements and Electrical Data

#10 AWG

Stock Code	Cond. Number	Dia. Over Cond. (1)	Ground	Jacket Thickness	Approx. OD (6)	Copper Weight	Approx. Weight	Min Bending Radius	DC Resis. @ 250C	AC Resis @ 900C	Allowable Ampacities*
		inches									No.xAWG
955955 ◊	3	0.111	1 x 10	45	0.502	130	210	2.0	1.040	1.300	24/28/3
955963 ◊	4	0.111	1 x 10	60	0.581	162	273	2.3	1.040	1.300	0

All dimensions are nominal and subject to normal manufacturing tolerance.

\* 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) and assuming ground is also carrying current.

◊ Standard stock item

24/28/3  
0

