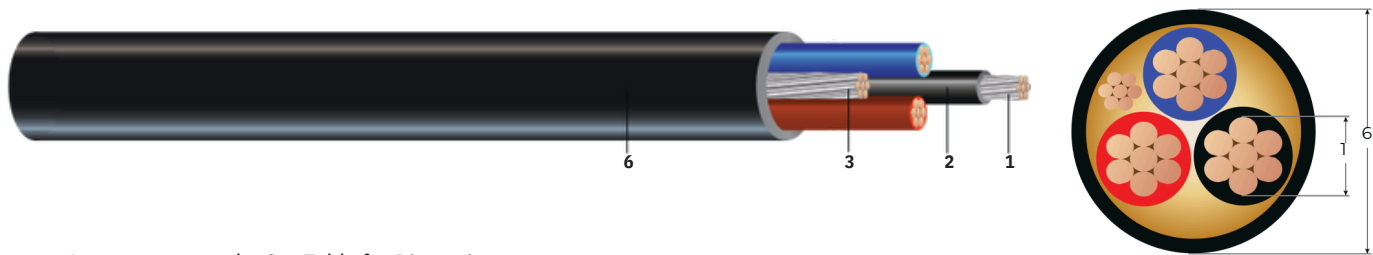


CU 600V EPR XHHW-2 CPE Control Cable Type TC-ER

Type TC-ER Control Cable 600Volt Copper Conductors, Ethylene Propylene Rubber (EPR) Insulation XHHW-2 Chlorinated Polyethylene (CPE) Jacket with 1 Tinned CU Ground, Control Cable Conductor Identification Method 1 Table 2



Images not to scale. See Table for Dimensions

CONSTRUCTION:

- Conductor:** 7 strands class B compressed tinned copper per ASTM B33 and ASTM B8
- Insulation:** Ethylene Propylene Rubber (EPR) XHHW-2, 30 Mils thick for all cable sizes
- Grounding Conductor** : Class B compressed stranded tinned copper per ASTM B33 and ASTM B8
- Filler:** Polypropylene filler on cables with 5 or less conductors
- Binder** : Polyester flat thread binder tape applied for cables with more than 5 conductors
- Overall Jacket** : Chlorinated Polyethylene (CPE) 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. Sunlight resistant.

SPECIFICATIONS:

- ASTM B33 - Tinned Soft or annealed copper
- ASTM B8 - Concentric-lay-strandard 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-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 EPR/CPE 600V Type TC-ER For CT USE SUN. RES. For DIRECT BURIAL FT4 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									60/75/900C Amps
TBA	3	0.056	1 x 16	45	0.341	32	76	1.4	4.180	5.226	10/10/1
TBA	4	0.056	1 x 16	45	0.371	40	92	1.5	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									60/75/900C Amps
591946	3	0.070	1 x 14	45	0.370	51	101	1.5	2.630	3.288	15/15/1
TBA	4	0.070	1 x 14	45	0.403	64	122	1.6	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 not carrying current.

14/15/1
5



Measurements and Electrical Data

#12 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
591961 ◇	3	0.087	1 x 12	45	0.408	81	139	1.6	1.660	2.075	20/20/2
TBA	4	0.087	1 x 12	45	0.445	102	169	1.8	1.660	2.075	0

16/20/2
0

Measurements and Electrical Data

#10 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
591975 ◇	3	0.111	1 x 10	45	0.459	130	198	1.8	1.040	1.300	30/30/3
TBA	4	0.111	1 x 10	45	0.502	162	243	2.0	1.040	1.300	0

24/28/3
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 not carrying current.

◇ Standard stock item

