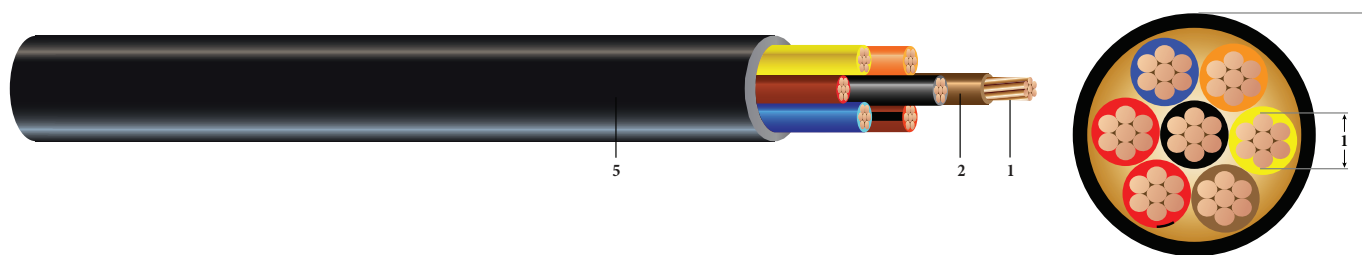


CU 600V XLPE XHHW-2 PVC Control Cable Type TC-ER

Type TC-ER Control Cable 600Volt Copper Conductors, Cross Linked Polyethylene (XLPE) Insulation XHHW-2 Polyvinyl Chloride (PVC) Jacket, 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. **Filler:** Polypropylene filler on cables with 5 or less conductors
4. **Binder:** Polyester flat thread binder tape applied for cables with more than 5 conductors
5. **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 EXXXXX #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]



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Southwire[®]

Measurements and Electrical Data

#16 AWG

Stock Code	Cond. Number	Dia. Over Cond. (1)	Jacket Thickness	Approx. OD (5)	Copper Weight	Approx. Weight	Min Bending Radius	DC Resis. @ 25°C	AC Resis @ 90°C	Allowable Ampacities* 60/75/90°C
		inches	mils	inches	lbs./MFT	lbs./MFT	inches	Ω/MFT	Ω/MFT	Amps
TBA	2	0.056	45	0.323	16	53	1.3	4.180	5.226	10/10/10
TBA	3	0.056	45	0.341	24	67	1.4	4.180	5.226	10/10/10
TBA	4	0.056	45	0.371	32	83	1.5	4.180	5.226	10/10/10
TBA	5	0.056	45	0.404	40	100	1.6	4.180	5.226	10/10/10
TBA	6	0.056	45	0.439	48	117	1.8	4.180	5.226	10/10/10
TBA	7	0.056	45	0.439	56	128	1.8	4.180	5.226	9/10/10
TBA	8	0.056	45	0.475	64	146	1.9	4.180	5.226	9/10/10
TBA	9	0.056	45	0.510	72	164	2.0	4.180	5.226	9/10/10
TBA	10	0.056	60	0.585	81	201	2.3	4.180	5.226	6/7/9
TBA	12	0.056	60	0.604	97	227	2.4	4.180	5.226	6/7/9
TBA	15	0.056	60	0.668	121	278	2.7	4.180	5.226	6/7/9
TBA	19	0.056	60	0.702	153	330	2.8	4.180	5.226	6/7/9
TBA	20	0.056	60	0.738	161	352	3.0	4.180	5.226	6/7/9
TBA	25	0.056	60	0.818	201	432	3.3	4.180	5.226	6/7/8
TBA	30	0.056	80	0.905	242	535	3.6	4.180	5.226	6/7/8
TBA	37	0.056	80	0.974	298	638	3.9	4.180	5.226	5/6/7

Measurements and Electrical Data

#14 AWG

Stock Code	Cond. Number	Dia. Over Cond. (1)	Jacket Thickness	Approx. OD (5)	Copper Weight	Approx. Weight	Min Bending Radius	DC Resis. @ 25°C	AC Resis @ 90°C	Allowable Ampacities* 60/75/90°C
		inches	mils	inches	lbs./MFT	lbs./MFT	inches	Ω/MFT	Ω/MFT	Amps
952459 ◊	2	0.070	45	0.349	26	68	1.4	2.630	3.288	15/15/15
952465 ◊	3	0.070	45	0.370	38	87	1.5	2.630	3.288	15/15/15
952473 ◊	4	0.070	45	0.403	51	109	1.6	2.630	3.288	14/15/15
952481 ◊	5	0.070	45	0.440	64	132	1.8	2.630	3.288	14/15/15
952499	6	0.070	45	0.479	77	155	1.9	2.630	3.288	14/15/15
952440 ◊	7	0.070	45	0.479	90	171	1.9	2.630	3.288	12/15/15
952507	8	0.070	45	0.519	102	195	2.1	2.630	3.288	12/15/15
952572 ◊	9	0.070	60	0.588	115	236	2.4	2.630	3.288	12/15/15
952580	10	0.070	60	0.638	128	266	2.6	2.630	3.288	9/11/12
952598 ◊	12	0.070	60	0.659	154	303	2.6	2.630	3.288	9/11/12
952606 ◊	15	0.070	60	0.730	192	371	2.9	2.630	3.288	9/11/12
952614 ◊	19	0.070	60	0.768	243	446	3.1	2.630	3.288	9/11/12
952622	20	0.070	60	0.808	256	475	3.2	2.630	3.288	9/11/12
952630 ◊	25	0.070	80	0.937	320	619	3.7	2.630	3.288	8/9/11
952648	30	0.070	80	0.991	384	719	4.0	2.630	3.288	8/9/11
952655 ◊	37	0.070	80	1.067	474	862	5.3	2.630	3.288	7/8/10

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)

◊ Standard stock item



Measurements and Electrical Data

#12 AWG

Stock Code	Cond. Number	Dia. Over Cond. (1)	Jacket Thickness	Approx. OD (5)	Copper Weight	Approx. Weight	Min Bending Radius	DC Resis. @ 25°C	AC Resis @ 90°C	Allowable Ampacities* 60/75/90°C
		inches	mils	inches	lbs./MFT	lbs./MFT	inches	Ω/MFT	Ω/MFT	Amps
953042 [◇]	2	0.087	45	0.384	41	90	1.5	1.660	2.075	20/20/20
953059 [◇]	3	0.087	45	0.408	61	118	1.6	1.660	2.075	20/20/20
953067 [◇]	4	0.087	45	0.445	81	148	1.8	1.660	2.075	16/20/20
953075 [◇]	5	0.087	45	0.487	102	181	1.9	1.660	2.075	16/20/20
953083	6	0.087	45	0.532	122	214	2.1	1.660	2.075	16/20/20
953091 [◇]	7	0.087	45	0.532	143	237	2.1	1.660	2.075	14/17/20
953109	8	0.087	60	0.607	163	288	2.4	1.660	2.075	14/17/20
953117 [◇]	9	0.087	60	0.651	183	324	2.6	1.660	2.075	14/17/20
953125	10	0.087	60	0.709	204	365	2.8	1.660	2.075	10/12/15
953133 [◇]	12	0.087	60	0.732	244	419	2.9	1.660	2.075	10/12/15
953141	15	0.087	60	0.813	305	516	3.3	1.660	2.075	10/12/15
953158 [◇]	19	0.087	80	0.896	387	657	3.6	1.660	2.075	10/12/15
953166	20	0.087	80	0.942	407	699	3.8	1.660	2.075	10/12/15
953174 [◇]	25	0.087	80	1.043	509	860	5.2	1.660	2.075	9/11/13
953182	30	0.087	80	1.104	611	1005	5.5	1.660	2.075	9/11/13
953190 [◇]	37	0.087	80	1.191	753	1211	6.0	1.660	2.075	8/10/12

Measurements and Electrical Data

#10 AWG

Stock Code	Cond. Number	Dia. Over Cond. (1)	Jacket Thickness	Approx. OD (5)	Copper Weight	Approx. Weight	Min Bending Radius	DC Resis. @ 25°C	AC Resis @ 90°C	Allowable Ampacities* 60/75/90°C
		inches	mils	inches	lbs./MFT	lbs./MFT	inches	Ω/MFT	Ω/MFT	Amps
952861 [◇]	2	0.111	45	0.431	65	124	1.7	1.040	1.300	30/30/30
952879 [◇]	3	0.111	45	0.459	97	165	1.8	1.040	1.300	30/30/30
952895 [◇]	4	0.111	45	0.502	130	210	2.0	1.040	1.300	24/28/30
952887 [◇]	5	0.111	60	0.581	162	273	2.3	1.040	1.300	24/28/30
952903	6	0.111	60	0.632	194	323	2.5	1.040	1.300	24/28/30
952911 [◇]	7	0.111	60	0.632	227	358	2.5	1.040	1.300	21/24/28
952929	8	0.111	60	0.685	259	410	2.7	1.040	1.300	21/24/28
952937 [◇]	9	0.111	60	0.736	291	461	2.9	1.040	1.300	21/24/28
952945	10	0.111	60	0.803	324	519	3.2	1.040	1.300	15/17/20
952952 [◇]	12	0.111	60	0.830	389	600	3.3	1.040	1.300	15/17/20
952960	15	0.111	80	0.964	486	777	3.9	1.040	1.300	15/17/20
952978	19	0.111	80	1.014	615	941	5.1	1.040	1.300	15/17/20
952986	20	0.111	80	1.067	648	1001	5.3	1.040	1.300	15/17/20
952994	25	0.111	80	1.184	810	1236	5.9	1.040	1.300	13/15/18
953000	30	0.111	80	1.254	971	1450	6.3	1.040	1.300	13/15/18
953018	37	0.111	80	1.355	1198	1755	6.8	1.040	1.300	12/14/16

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)

◇ Standard stock item

