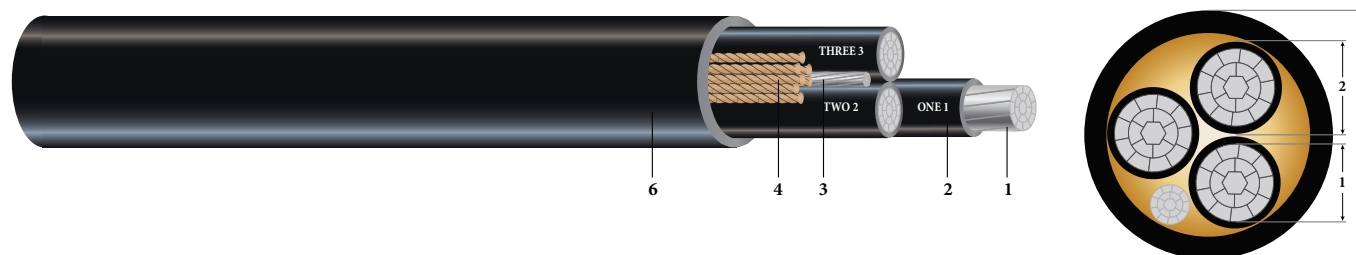


## 3/C AL 600V XLPE XHHW-2 PVC Power Cable Type TC-ER

Type TC-ER Power Cable 600Volt Three Conductor Aluminum, Cross Linked Polyethylene (XLPE) insulation XHHW-2 Polyvinyl Chloride (PVC) Jacket with 1 Bare AL Ground



Images not to scale. See Table 1 for Dimensions

### CONSTRUCTION:

1. **Conductor:** Class B compact stranded 8000 Series aluminum per ASTM B800 and ASTM B836
2. **Insulation:** Cross Linked Polyethylene (XLPE) Type XHHW-2
3. **Grounding Conductor:** Class B compact stranded 8000 Series aluminum per ASTM B800 and ASTM B836
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:** Polyvinyl Chloride (PVC) 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.

### SPECIFICATIONS:

- ASTM B800 8000 Series Aluminum Alloy Wire
- ASTM B836 Compact Rounded Stranded Aluminum Conductors
- 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) And ICEA T-29-520 - (210,000 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] AL XHHW-2 XLPE/PVC 600V Type TC-ER For CT USE SUN. RES. For DIRECT BURIAL FT4 YEAR (NESC) [SEQUENTIAL FEET MARKS]



Southwire Company, LLC | One Southwire Drive, Carrollton, GA 30119 | [www.southwire.com](http://www.southwire.com)



Southwire®

**Table 1 – Weights & Measurements**

Stock Code	Cond. Size	Dia Over Cond. (1)	Insul. Thickness	Dia Over Insul. (2)	Ground	Jacket Thickness	Approx. OD (6)	Aluminum Weight	Approx. Weight
	AWG	inches	inches	inches	No. x AWG	mils	inches	lbs./MFT	lbs./MFT
582238	8	0.134	45	0.224	1 x 8	60	0.604	63	180
582131	6	0.169	45	0.259	1 x 8	60	0.679	90	230
TBA	4	0.213	45	0.303	1 x 6	60	0.774	144	311
582120	2	0.268	45	0.358	1 x 6	80	0.933	214	452
TBA	1	0.299	55	0.409	1 x 4	80	1.043	278	572
TBA	1/0	0.336	55	0.446	1 x 4	80	1.123	341	666
580376	2/0	0.376	55	0.486	1 x 4	80	1.210	418	779
TBA	3/0	0.423	55	0.533	1 x 4	80	1.311	518	922
580377	4/0	0.475	55	0.585	1 x 2	80	1.424	666	1118
TBA	250	0.520	65	0.650	1 x 2	80	1.564	775	1318
596550	350	0.616	65	0.746	1 x 1	110	1.831	1076	1820
563211	500	0.736	65	0.866	1 x 1	110	2.091	1507	2401
587573	750	0.908	80	1.068	1 x 1/0	110	2.527	2240	3478
580013	750	0.908	80	1.068	1 x 3/0	110	2.527	2340	3578

All dimensions are nominal and subject to normal manufacturing tolerances

**Table 2 – Electrical and Engineering Data**

Stock Code	Cond. Size AWG	Min. Bending Radius Inches	Max. Pull Tension lbs.	Resistance		Reactance X <sub>L</sub> @ 60Hz Ω/MFT	Ø Short Circuit Current 6 Cycles Amps	Allowable Ampacities †		
				DC @ 25°C Ω/MFT	AC @ 90°C Ω/MFT			60 °C Amps	75 °C Amps	90 °C Amps
582238	8	2.4	297	1.070	1.345	0.034	3785	35	40	45
582131	6	2.7	472	0.675	0.848	0.032	6016	40	50	55
TBA	4	3.1	751	0.424	0.533	0.030	9569	55	65	75
582120	2	3.7	1194	0.266	0.334	0.028	15213	75	90	100
TBA	1	5.2	1506	0.211	0.265	0.029	19186	85	100	115
TBA	1/0	5.6	1901	0.168	0.211	0.028	24209	100	120	135
580376	2/0	6.0	2396	0.133	0.167	0.028	30513	115	135	150
TBA	3/0	6.6	3020	0.105	0.132	0.027	38468	130	155	175
580377	4/0	7.1	3809	0.084	0.105	0.026	48509	150	180	205
TBA	250	7.8	4500	0.071	0.089	0.027	57313	170	205	230
596550	350	9.2	6300	0.051	0.064	0.026	80238	210	250	280
563211	500	12.5	9000	0.035	0.045	0.025	114625	260	310	350
587573	750	15.2	13500	0.024	0.031	0.025	171938	320	385	435
580013	750	15.2	13500	0.024	0.031	0.025	171938	320	385	435

† 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)

