



Flexible CU 600/1000V XLPE Insulation PVC Jacket XHHW-2. CT Rated - Sunlight Resistant - For Direct Burial - Silicone Free

Type TC-ER Power Cable 600 or 1000 Volt Flexible Four Conductor Copper, Cross Linked Polyethylene (XLPE) insulation XHHW-2 Polyvinyl Chloride (PVC) Jacket with 1 Bare CU Ground. Silicone Free. CT Rated - Sunlight Resistant - For Direct Burial - Silicone Free



Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

1. **Conductor:** Sizes 8 - 4/0 AWG: Class K, flexible stranded bare copper per ASTM B3 and B172. Sizes 250 - 750 kcmil: Class I, flexible stranded bare copper per ASTM B3 and B172.
2. **Insulation:** Cross Linked Polyethylene (XLPE) Type XHHW-2
3. **Grounding Conductor:** Sizes 8 - 4/0 AWG: Class K, flexible stranded bare copper per ASTM B3 and B172. Sizes 250 - 750 kcmil: Class I, flexible stranded bare copper per ASTM B3 and B172. When present, phase cable conductor sizes 8 & 6 AWG have an insulated green ground.
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)

APPLICATIONS AND FEATURES:

Southwire's 600 or 1000 Volt Type TC-ER flexible 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. Sunlight Resistant - For Direct Burial - Silicone Free

SPECIFICATIONS:

- ASTM B3 Soft or Annealed Copper Wire
- ASTM B172 Standard Specification for Rope-Lay-Stranded Copper Conductors Having Bunch-Stranded Copper Conductors
- UL 44 Thermoset-Insulated Wires and Cables
- UL 1277 Electrical Power and Control Tray Cables
- UL 1685 Vertical-Tray Fire Propagation and Smoke Release Test
- ICEA S-58-679 Control Cable Conductor Identification Method 3 (1-BLACK, 2-RED, 3-BLUE, 4-ORANGE)





SAMPLE PRINT LEGEND:

{SQFTG} SOUTHWIRE® {UL} XXX KCMIL (XXX{mm²}) CU 4/C TYPE TC-ER XHHW-2 CDRS GW 1 X X AWG CU 90°C JACKET SUNLIGHT RESISTANT DIRECT BURIAL 600V or 1000V {NOM}-ANCE {YYYY}

Table 1 – Weights and Measurements

Stock Number	Cond. Size	Cond. Number	Strand Count	Diameter Over Conductor	Insul. Thickness	Ground	Jacket Thickness	Approx. OD	Copper Weight	Approx. Weight	Jacket Color
	AWG/Kcmil		No. of Strands	inch	mil	No. x AWG	mil	inch	lb/1000ft	lb/1000ft	
TBA	8	4	168	0.153	45	1 x 10 GG	60	0.656	241	383	Black
TBA	6	4	259	0.198	45	1 x 8 GG	80	0.937	411	617	Black
TBA	4	4	413	0.235	45	1 x 8	80	0.989	576	801	Black
TBA	2	4	651	0.302	45	1 x 6	80	1.192	936	121	Black
TBA	1	4	836	0.347	55	1 x 6	80	1.286	1162	1496	Black
TBA	1/0	4	1044	0.354	55	1 x 6	80	1.294	1437	1775	Black
TBA	2/0	4	1254	0.400	55	1 x 6	80	1.394	1626	1996	Black
TBA	3/0	4	1666	0.533	55	1 x 4	110	1.784	2290	2865	Black
TBA	4/0	4	2109	0.550	55	1 x 4	110	1.825	2859	3449	Black
TBA	250	4	627	0.605	65	1 x 4	110	2.004	3214	3910	Black
TBA	350	4	855	0.670	65	1 x 3	110	2.164	4452	5210	Black
TBA	500	4	1225	0.858	65	1 x 2	110	2.616	6322	7259	Black
TBA	600	4	1480	0.963	80	1 x 1/0	140	3.003	7714	9051	Black
TBA	750	4	1850	1.094	80	1 x 1	140	3.322	9825	11320	Black

All dimensions are nominal and subject to normal manufacturing tolerances

◇ Cable marked with this symbol is a standard stock item

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.





Table 2 – Electrical and Engineering Data

Stock Number	Cond. Size	Cond. Number	Min Bending Radius	Max Pull Tension	DC Resistance @ 25°C	AC Resistance @ 75°C	Inductive Reactance @ 60Hz	Allowable Ampacity At 75°C	Allowable Ampacity At 90°C
	AWG/ Kcmil		inch	lb	Ω/1000ft	Ω/1000ft	Ω/1000ft	Amp	Amp
TBA	8	4	3.1	528	0.666	0.841	0.052	40	44
TBA	6	4	3.7	839	0.419	0.529	0.051	52	60
TBA	4	4	3.9	1335	0.263	0.332	0.048	68	76
TBA	2	4	5.9	2123	0.167	0.211	0.045	92	104
TBA	1	4	6.4	2678	0.133	0.167	0.046	104	116
TBA	1/0	4	6.4	3379	0.105	0.132	0.044	120	136
TBA	2/0	4	2	4259	0.084	0.106	0.043	140	156
TBA	3/0	4	8.9	5369	0.067	0.085	0.042	160	180
TBA	4/0	4	9.1	6771	0.053	0.068	0.041	184	208
TBA	250	4	12.0	8000	0.045	0.058	0.041	204	232
TBA	350	4	12.9	11200	0.032	0.042	0.040	248	280
TBA	500	4	15.6	16000	0.022	0.031	0.039	304	344
TBA	600	4	18.0	19200	0.019	0.027	0.039	336	380
TBA	750	4	19.9	24000	0.015	0.024	0.038	380	428

* Ampacities based upon 2023 NEC Table 310.16. See NEC sections 310.15 and 110.14(C) for additional requirements.

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

