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 Three Conductor Copper, Cross Linked Polyethylene (XLPE) insulation XHHW-2 Polyvinyl Chloride (PVC) Jacket with 1 Copper Ground (Bare or Insulated). 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 FT4 Vertical-Tray Fire Propagation and Smoke Release Test
- ICEA S-58-679 Cable Conductor Identification Method 3 (1-BLACK, 2-RED, 3-BLUE)
- IEEE 383 Flame Test (70,000 btu)
- IEEE 1202 FT4 Flame Test (70,000) BTU/hr Vertical Tray Test

SAMPLE PRINT LEGEND:

Bare Ground: {SQFTG} SOUTHWIRE® {UL} XX AWG (X.XX{mm2}) 3/C TYPE TC-ER XHHW-2 CDRS 90°C JACKET SUNLIGHT RESISTANT DIRECT BURIAL 600V or 1000V {NOM}-ANCE XHHW-2 CT FT4 SR 600V 90C

Green Ground: {SQFTG} SOUTHWIRE® {UL} XX AWG (X.XX{mm2}) CU 3/C TYPE TC-ER XHHW-2 CDRS GW 1 X X AWG CU GREEN INSULATED 90°C JACKET SUNLIGHT RESISTANT DIRECT BURIAL 600V or 1000V {NOM}-ANCE XHHW-2 CT FT4 SR 600V 90C

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	3	168	0.153	45	1 x 10 GG	60	0.708	189	337	Black
TBA	6	3	259	0.198	45	1 x 8 GG	60	0.816	320	504	Black
TBA	4	3	413	0.235	45	1 x 8	60	0.819	444	623	Black
TBA	2	3	651	0.302	45	1 x 6	80	1.004	716	980	Black
TBA	1	3	836	0.347	55	1 x 6	80	1.152	894	1230	Black
TBA	1/0	3	1044	0.354	55	1 x 6	80	1.168	1100	1442	Black
TBA	2/0	3	1254	0.400	55	1 x 6	80	1.269	1242	1624	Black
TBA	3/0	3	1666	0.533	55	1 x 4	80	1.556	1750	2253	Black
TBA	4/0	3	2109	0.550	55	1 x 4	80	1.593	2177	2697	Black
TBA	250	3	627	0.605	65	1 x 4	110	1.813	2443	3169	Black
TBA	350	3	855	0.670	65	1 x 3	110	1.956	3381	4190	Black
TBA	400	3	980	0.831	65	1 x 3	110	2.301	4014	5019	Black
TBA	500	3	1225	0.858	65	1 x 2	110	2.359	4794	5833	Black
TBA	600	3	1480	0.963	80	1 x 2	110	2.651	5839	7127	Black
TBA	750	3	1850	1.094	80	1 x 1	140	2.996	7435	9094	Black

All dimensions are nominal and subject to normal manufacturing tolerances
◊ Cable marked with this symbol is a standard stock item
GG: Green Insulated Ground
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	3	2.8	396	0.666	0.802	0.052	50	55
TBA	6	3	3.2	629	0.419	0.504	0.051	65	75
TBA	4	3	3.2	1001	0.263	0.317	0.048	85	95
TBA	2	3	5.0	1592	0.167	0.201	0.045	115	130
TBA	1	3	5.7	2008	0.133	0.167	0.046	130	145
TBA	1/0	3	5.8	2534	0.105	0.132	0.044	150	170
TBA	2/0	3	6.3	3194	0.084	0.106	0.043	175	195
TBA	3/0	3	7.7	4027	0.067	0.085	0.042	200	225
TBA	4/0	3	7.9	5078	0.053	0.068	0.041	230	260
TBA	250	3	9.0	6000	0.045	0.058	0.041	255	290
TBA	350	3	9.7	8400	0.032	0.042	0.040	310	350
TBA	400	3	13.8	9600	0.028	0.038	0.040	335	380
TBA	500	3	14.1	12000	0.022	0.031	0.039	380	430
TBA	600	3	15.9	14400	0.019	0.027	0.039	420	475
TBA	750	3	17.9	18000	0.015	0.024	0.038	475	535

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