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

Copyright © 2026 Southwire Company, LLC. All Rights Reserved

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

Cond. Size	Cond. Number	Strand Count	Diameter Over Conductor	Insul. Thickness	Jacket Thickness	Approx. OD	Copper Weight	Approx. Weight	Jacket Color
AWG/ Kcmil		No. of Strands	inch	mil	mil	inch	lb/1000ft	lb/1000ft	
8	3	168	0.153	45	60	0.651	189	299	BK
6	3	259	0.198	45	60	0.748	320	451	BK
4	3	413	0.235	45	80	0.868	444	622	BK
2	3	651	0.302	45	80	1.013	717	932	BK
1	3	836	0.347	55	80	1.153	886	1156	BK
1/0	3	1044	0.354	55	80	1.168	1093	1367	BK
2/0	3	1254	0.4	55	80	1.268	1235	1536	BK
3/0	3	1666	0.533	55	80	1.555	1750	2131	BK
4/0	3	2109	0.55	55	80	1.592	2177	2568	BK
250	3	627	0.605	65	110	1.814	2443	3007	BK
350	3	855	0.67	65	110	1.954	3377	3990	BK
400	3	980	0.831	65	110	2.302	4011	4748	BK
600	3	1480	0.963	80	110	2.652	5837	6776	BK
500	3	1225	0.988	65	110	2.641	5159	6016	BK
750	3	1850	1.094	80	140	2.995	7433	8640	BK

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.

Copyright © 2026 Southwire Company, LLC. All Rights Reserved

Table 2 – Electrical and Engineering Data

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
8	3	2.6	396	0.666	0.827	0.052	50	55
6	3	3	629	0.419	0.52	0.051	65	75
4	3	3.5	1001	0.263	0.326	0.048	85	95
2	3	5.1	1592	0.167	0.207	0.045	115	130
1	3	5.8	2008	0.133	0.165	0.046	130	145
1/0	3	5.8	2534	0.105	0.13	0.044	150	170
2/0	3	6.3	3194	0.085	0.105	0.043	175	195
3/0	3	7.8	4027	0.067	0.083	0.042	200	225
4/0	3	8	5078	0.053	0.066	0.041	230	260
250	3	9.1	6000	0.045	0.056	0.041	255	290
350	3	9.8	8400	0.032	0.041	0.04	310	350
400	3	13.8	9600	0.029	0.037	0.04	335	380
600	3	15.9	14400	0.018	0.024	0.039	420	475
500	3	15.8	12000	0.022	0.029	0.039	380	430
750	3	18	18000	0.015	0.021	0.038	475	535

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

Copyright © 2026 Southwire Company, LLC. All Rights Reserved