

3/C 600 or 1000 Volt Cu (FR-XLPE) XHHW-2 CPE Jacket Power Cable Halo-Flex™ Type TC-ER-HL

Halo-Flex™ Type TC-ER-HL Power Cable 600 or 1000 Volt Copper Conductors, Cross Linked Polyethylene (FR-XLPE) Insulation XHHW-2 -40°C Thermoplastic CPE Jacket, Control Cable Conductor Identification Method 3

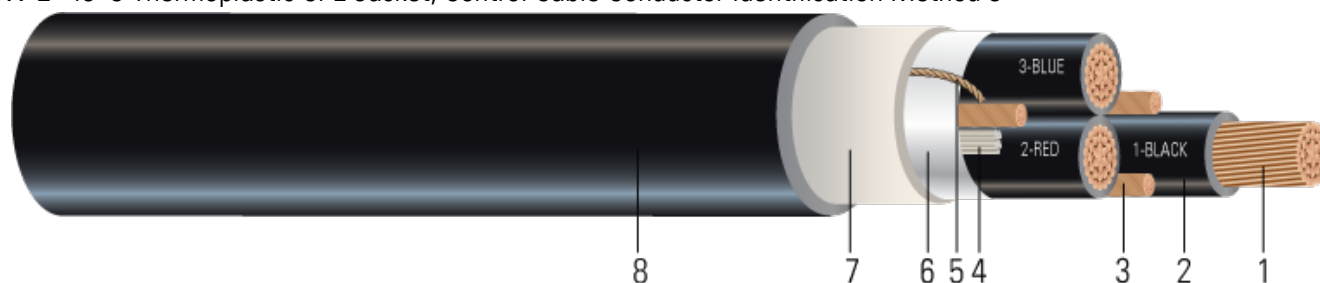


Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

- Conductor:** Flexible Stranded Rope-Lay Class I Copper per ASTM B172
- Insulation:** Fire Retardant Cross Linked Polyethylene (FR-XLPE) Type XHHW-2
- Ground:** Three symmetrical grounds flexible strand
- Filler:** Polypropylene filler as needed to fill interstices
- Rip Cord:** Rip cord for quick removal of extruded polymeric layer and jacket
- Separator:** Mylar for ease of stripability. Optional metal shield
- Extruded Polymeric Layer:** Extruded Polymeric Binder Layer
- Overall Jacket:** -40°C Thermoplastic Chlorinated Polyethylene (CPE) Jacket

APPLICATIONS AND FEATURES:

Southwire's Halo-Flex™ 600V TC-ER-HL or 1000V 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. A gas/vapor-tight polymeric sheath is extruded over the core. For uses in Class I, II, and III, Division 1 and 2 hazardous locations per NEC Article 501, 502, and 503. Listed for exposed runs (TC-ER-HL) per NEC 336.10. - 40°C cold bend and cold impact. HALO-FLEX™ CPE jacket is made with patented SIM Technology. Cable can be installed in conduit without the aid of lubrication. PATENT www.patentsw.com

SPECIFICATIONS:

- MSHA Mine Safety Health Administration Approved
- ABS American Bureau of Shipping Approved
- ASTM B3 Standard Specification for 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 1309 Marine Shipboard Cable (Optional) With TPE Jacket
- UL 1685 FT4 Vertical-Tray Fire Propagation and Smoke Release Test
- UL 2225 Cables and Cable-Fittings For Use In Hazardous (Classified) Locations
- ICEA S-58-679 Control Cable Conductor Identification Method 3 (1-BLACK, 2-RED, 3-BLUE)



Southwire Company, LLC | One Southwire Drive, Carrollton, GA 30119 | www.southwire.com



Southwire

**CABLETECH
SUPPORT™**

Services

- IEEE 1202 FT4 Flame Test (70,000) BTU/hr Vertical Tray Test

SAMPLE PRINT LEGEND:

Products ≤ 1"

(SEQ FOOTAGE) SOUTHWIRE{R} HALO-FLEX{TM} E75755 (Plant Code) {UL} XX (AWG or kcmil) CU 3/C XHHW-2 CRS GW 3 X XX AWG FR-XLPE/CPE 90°C 600V TYPE TC-ER-HL OR 1000V TYPE TC-ER SUN. RES. FOR DIRECT BURIAL FT4 -40°C OIL RES I/ II ABS RoHS-3 2015/863 COMPLIANT {YYYY} 07-KA180012-MSHA

Products > 1"

(SEQ FOOTAGE) SOUTHWIRE{R} HALO-FLEX{TM} E75755 (Plant Code) {UL} XX (AWG or kcmil) CU 3/C XHHW-2 CDRS. GW 3 X XX AWG FR-XLPE/CPE 90°C 600V OR 1000 V TYPE TC-ER SUN. RES. FOR DIRECT BURIAL FT4 -40°C OIL RES I/II ABS RoHS-3 2015/863 COMPLIANT {YYYY} 07-KA180012-MSHA

Table 1 – Weights and Measurements

Stock Number	Cond. Size	Diameter Over Conductor	Insul. Thickness	Diameter Over Insulation	Ground	Jacket Thickness	Approx. OD	Copper Weight	Approx. Weight
	AWG/ Kcmil	inch	mil	inch	No. x AWG	mil	inch	lb/1000ft	lb/1000ft
679916◇	8*	0.157	45	0.247	3 x 14	60	0.781	154.5	414
679919◇	6*	0.19	45	0.282	3 x 12	80	0.893	246	585
678561	4	0.272	45	0.361	3 x 12	80	1.07	391	839
674799	2	0.338	45	0.427	3 x 10	80	1.215	621	1194
674802	1/0	0.451	55	0.536	3 x 10	80	1.45	987	1710
674806	2/0	0.47	55	0.579	3 x 10	80	1.543	1245	2025
674809	3/0	0.533	55	0.646	3 x 8	110	1.747	1560	2614
674813	4/0	0.627	55	0.702	3 x 8	110	1.869	1979	3114
678647	250	0.682	65	0.812	3 x 8	110	2.106	2339	3727
674816	350	0.809	65	0.931	3 x 6	110	2.363	3275	4999
678651	500	0.988	65	1.089	3 x 6	110	2.704	4678	6767
678654	750	1.276	80	1.404	3 x 4	140	3.444	7017	10433

All dimensions are nominal and subject to normal manufacturing tolerances

◇ Cable marked with this symbol is a standard stock item

* only these sizes are marked TC-ER-HL



Table 2 – Electrical and Engineering Data

Stock Number	Cond. Size	Min Bending Radius	Max Pull Tension	DC Resistance @ 25°C	AC Resistance @ 90°C	Inductive Reactance @ 60Hz	Shield Short Circuit Current 6 Cycles	Allowable Ampacity At 60°C†	Allowable Ampacity At 75°C†	Allowable Ampacity At 90°C†
	AWG/Kcmil	inch	lb	Ω/1000ft	Ω/1000ft	Ω/1000ft	Amp	Amp	Amp	Amp
679916◇	8*	6.25	396	0.652	0.815	0.033	3754	40	50	55
679919◇	6*	7.14	630	0.411	0.514	0.031	5966	55	65	75
678561	4	5.4	1002	0.258	0.323	0.030	9491	70	85	95
674799	2	6.1	1593	0.162	0.203	0.028	15089	95	115	130
674802	1/0	7.3	2534	0.102	0.128	0.028	24011	125	150	170
674806	2/0	7.7	3194	0.081	0.102	0.027	30264	145	175	195
674809	3/0	8.7	4027	0.064	0.081	0.027	38154	165	200	225
674813	4/0	9.3	5078	0.051	0.064	0.026	48114	195	230	260
678647	250	12.6	6000	0.043	0.055	0.027	56845	215	255	290
674816	350	14.2	8400	0.031	0.040	0.026	79583	260	310	350
678651	500	16.2	12000	0.022	0.029	0.025	113690	320	380	430
678654	750	20.7	18000	0.014	0.020	0.025	170535	400	475	535

† Ampacities are based on Table 310.15 (B)(16) of the NEC, 2017 Edition. Ampacities of insulated conductors rated up to and including 2000 Volts, based on ambient temperature of 30°C (86°F)

* only these sizes are marked TC-ER-HL

