

## 3/C or 4/C 600 or 1000 Volt Cu (FR-XLPE) XHHW-2 CPE Jacket Control Cable Halo-Flex™ Type TC-ER-HL

Halo-Flex™ Type TC-ER-HL Control Cable 600 or 1000 Volt Copper Conductors, Cross Linked Polyethylene (FR-XLPE) Insulation XHHW-2 -40°C Thermoplastic Chlorinated Polyethylene CPE Jacket, Control Cable Conductor Identification Method 1 Table 2



Image not to scale. See Table 1 for dimensions.

### CONSTRUCTION:

- Conductor:** Flexible Bunch Stranded, Class K Copper per ASTM B174
- Insulation:** Cross Linked Polyethylene (FR-XLPE) Type XHHW-2
- Ground:** 3 x bare symmetrical grounds with a total circular mil size equal to the phase conductor.
- Filler:** Polypropylene filler as needed to fill interstices
- Separator:** Mylar for ease of stripability. Optional metal shield
- Rip Cord:** Rip cord for quick removal of extruded polymeric layer and jacket
- Extruded Polymeric Layer:** Extruded Polymeric Barrier Layer
- Overall Jacket:** Low-Friction **SIM Technology®** -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. Rated for use in Class I, II, or III, Division 1 & 2, Zone 1 & 2, hazardous locations per NEC Article 501, 502, and 503. Listed for exposed runs in hazardous locations (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](http://www.patentsw.com)

### SPECIFICATIONS:

- ASTM B3 Standard Specification for Soft or Annealed Copper Wire
- ASTM B174 Standard Specification for Bunch-Stranded Copper
- UL 44 Thermoset-Insulated Wires and Cables
- UL 1277 Electrical Power and Control Tray Cables
- UL 1309 Marine Shipboard Cable (Optional)
- 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 1 Table 2
- ICEA S-95-658 (NEMA WC70) Power Cables Rated 2000 Volts or Less for the Distribution of Electrical Energy
- IEEE 1202 FT4 Flame Test (70,000) BTU/hr Vertical Tray Test



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Services

- RoHS-3 Complies with European Directive 2015/863
- ABS American Bureau of Shipping Approved
- MSHA Mine Safety Health Administration Approved

## SAMPLE PRINT LEGEND:

(SEQ FOOTAGE) SOUTHWIRE{R} HALO-FLEX {TM} E75755 (Plant Code) {UL} XX AWG CU XX/C XHHW-2 CDRS. 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



**Table 1 – Physical and Electrical Data**

Stock Number	Cond. Size	Cond. Number	Diameter Over Cond.	Insul. Thickness	Ground	Jacket Thickness	Approx. OD	Copper Weight	Approx. Weight	DC Resistance @ 25°C	AC Resistance @ 90°C	Min Bending Radius	Allowable Ampacity At 60°C *	Allowable Ampacity 75°C *	Allowable Ampacity 90°C *
	AWG	No.	inch	mil	No. x AWG	mil	inch	lb /1000ft	lb /1000ft	Ω /1000ft	Ω /1000ft	inch	Amp	Amp	Amp
14 AWG															
679778◇	14	3	0.077	30	3 x 18	45	0.505	38	162	2.630	3.288	2.0	15	15	15
679782◇	14	4	0.077	30	3 x 18	60	0.569	51	202	2.630	3.288	2.3	15	15	15
12 AWG															
679797◇	12	3	0.094	30	3 x 16	60	0.580	61	220	1.660	2.075	2.3	20	20	20
679800◇	12	4	0.094	30	3 x 16	60	0.620	81	255	1.660	2.075	2.5	16	20	20
10 AWG															
679834◇	10	3	0.118	30	3 x 14	60	0.632	97	287	1.040	1.300	2.5	30	30	30
679838◇	10	4	0.118	30	3 x 14	60	0.677	130	336	1.040	1.300	3.0	24	28	30

All dimensions are nominal and subject to normal manufacturing tolerances

◇ Cable marked with this symbol is a standard stock item

† Ampacities are based on Table 310.16 of the NEC, 2020 Edition. Ampacities of insulated conductors rated up to and including 2000 Volts, based on ambient temperature of 30°C (86°F)

