

Multi-Conductor 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 (XLPE) Insulation XHHW-2 -40°C Thermoplastic CPE Jacket, Control Cable Conductor Identification Method 1 Table 2



Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

- Conductor:** Flexible Stranded Rope-Lay Class K Copper per ASTM B174
- Insulation:** Cross Linked Polyethylene (XLPE) Type XHHW-2, 30 Mils thick for all sizes VW-1 Rated
- Ground:** Green insulated ground same size as 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 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 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

SPECIFICATIONS:

- MSHA Mine Safety Health Administration Approved
- ABS American Bureau of Shipping Approved
- 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) 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 1 Table 2



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Southwire

**CABLETECH
SUPPORT™**

Services

- 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
- RoHS-3 Complies with European Directive 2015/863

SAMPLE PRINT LEGEND:

(SEQ FOOTAGE) SOUTHWIRE{R} HALO-FLEX{TM} E75755 (Plant Code) {UL} XX AWG CU XX/C XHHW-2 CDRS. GW 1 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	Jacket Thickness	Approx. OD	Copper Weight	Approx. Weight	DC Resistance	AC Resistance @ 90°C	Min Bending Radius	Allowable Ampacity At 60°C *	Allowable Ampacity 75°C *	Allowable Ampacity 90°C *	
	AWG	No.	inch	mil	mil	inch	lb /1000ft	lb /1000ft	Ω /1000ft	Ω /1000ft	inch	Amp	Amp	Amp	
14 AWG															
679785	14	5	0.074	30	60	0.659	64	243	2.630	3.288	2.5	14	15	15	
679789	14	6	0.074	30	60	0.659	77	260	2.630	3.288	2.5	14	15	15	
679792	14	7	0.074	30	60	0.702	90	290	2.630	3.288	3	12	15	15	
12 AWG															
679804	12	5	0.092	30	60	0.71	102	306	1.660	2.075	3	16	20	20	
679807	12	6	0.092	30	60	0.71	122	331	1.660	2.075	3	16	20	20	
679810	12	7	0.092	30	60	0.758	143	371	1.660	2.075	3	14	20	20	
10 AWG															
679841	10	5	0.116	30	60	0.782	162	404	1.040	1.300	3.1	24	28	30	
679844	10	6	0.116	30	60	0.782	194	442	1.040	1.300	3.1	24	28	30	
679848	10	7	0.116	30	80	0.877	227	532	1.040	1.300	3.5	21	24	28	

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 310.15 (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)

