HALO-FLEX™ CU 600 XLPE Insulation Thermoplastic CPE-TP Jacket. XHHW-2 TC-ER-HL

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



Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

1. **Conductor:** Flexible Stranded Rope-Lay Class K Copper per ASTM B174
2. **Insulation:** Fire Retardant Cross Linked Polyethylene (FR-XLPE) Type XHHW-2
3. **Ground:** Green insulated ground same size as phase conductor
4. **Filler:** Polypropylene filler as needed to fill interstices
5. **Separator:** Mylar for ease of stripability. Optional metal shield
6. **Rip Cord:** Rip cord for quick removal of extruded polymeric layer and jacket
7. **Extruded Polymeric Layer:** Extruded Polymeric Barrier Layer
8. **Overall Jacket:** Low-Friction SIM Technology® -40°C Thermoplastic Chlorinated Polyethylene (CPE-TP) 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

SPECIFICATIONS:

- ASTM B3 Soft or Annealed Copper Wire
- ASTM B8 Concentric-Lay-Stranded Copper Conductors
- 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 3 (1-BLACK, 2-RED, 3-BLUE)
- ICEA S-58-679 Control Cable Conductor Identification Method 1 Table 2

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- 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
- ABS American Bureau of Shipping Approved
- MSHA Mine Safety Health Administration Approved

SAMPLE PRINT LEGEND:

(SEQ FOOTAGE) SOUTHWIRE® 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

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Table 1 – Physical and Electrical Data

Stock Number	Cond. Size	Cond. Number	Cond. Strands	Insul. Thickness	Ground	Jacket Thickness	Approx. OD	Copper Weight	Approx. Weight	DC Resistance @ 25°C	AC Resistance @ 75°C	Inductive Rectance	Min Bending Radius	Allowable Ampacity 75°C	Allowable Ampacity 90°C
	AWG	No.	strands	mil	No. x AWG	mil	inch	lb / 1000ft	lb / 1000ft	Ω /1000ft	Ω /1000ft	Ω/1000ft	inch	Amp	Amp
14 AWG															
679785	14	5	41	30	1 x 14	45	0.647	76	246	2.814	3.391	0.058	2.6	16	20
679789	14	6	41	30	1 x 14	45	0.647	89	257	2.814	3.391	0.058	2.6	16	20
679792	14	7	41	30	1 x 14	60	0.688	102	285	2.814	3.391	0.058	2.8	14	17
12 AWG															
679804	12	5	65	30	1 x 12	60	0.710	121	312	1.774	2.137	0.054	2.8	20	24
679807	12	6	65	30	1 x 12	60	0.710	141	332	1.774	2.137	0.054	2.8	20	24
14 AWG															
678159	14	8	41	30	1 x 14	60	0.728	115	311	2.814	3.391	0.058	2.9	14	17
12 AWG															
679810	12	7	65	30	1 x 12	60	0.757	162	371	1.774	2.137	0.054	3.0	17	21
10 AWG															
679841	10	5	105	30	1 x 10	60	0.779	194	405	1.111	1.339	0.050	3.1	28	32
679844	10	6	105	30	1 x 10	60	0.779	226	442	1.111	1.339	0.050	3.1	28	32
12 AWG															
678162	12	8	65	30	1 x 12	60	0.803	182	407	1.774	2.137	0.054	3.2	17	21
10 AWG															
679848	10	7	105	30	1 x 10	60	0.873	258	530	1.111	1.339	0.050	3.5	24	28
678165	10	8	105	30	1 x 10	60	0.927	291	583	1.111	1.339	0.050	3.7	24	28

All dimensions are nominal and subject to normal manufacturing tolerances

◊ Cable marked with this symbol is a standard stock item

* Ampacities based upon 2023 NEC Table 310.16 and do not take into account the overcurrent protection limitations in NEC 240.4(D) of 15 Amps for 14 AWG CU, 20 Amps for 12 AWG CU, and 30 Amps for 10 AWG CU (independent of the conductor temperature rating and stranding if size is present in table). Also, see NEC sections 310.15 and 110.14(C) for additional requirements.

* Ampacities have been adjusted for more than Three Current-Carrying Conductors.