CU 600V XLPE Insulation Armor-x PVC Jacket. XHHW-2 VFD Cable

Type MC-HL Control Cable 600Volt Copper Conductors, Cross Linked Polyethylene (XLPE) Insulation XHHW-2 Continuous Corrugated Welded Armor (Armor-X), Polyvinyl Chloride (PVC) Jacket with 1 Insulated Green CU Ground

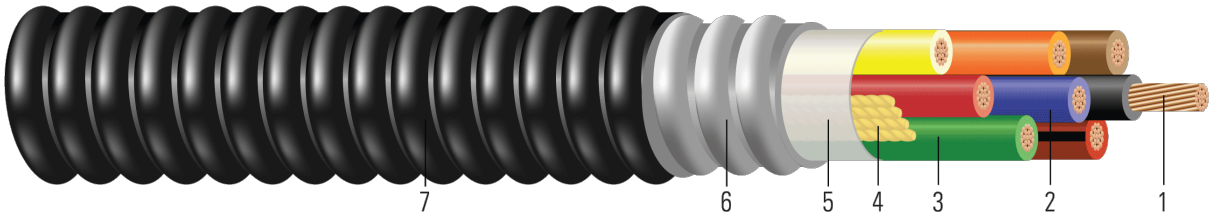

Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

1. **Conductor:** 7 strands class B compressed copper per ASTM B3 and ASTM B8
2. **Insulation:** Cross Linked Polyethylene (XLPE) XHHW-2, 30 Mils thick for all cable sizes
3. **Grounding Conductor:** Class B compressed stranded copper with green insulation
4. **Filler:** Polypropylene filler as needed
5. **Binder:** Polyester flat thread binder tape as needed
6. **Armor:** Continuous Corrugated Welded Armor (Armor-X)
7. **Overall Jacket:** Polyvinyl Chloride (PVC) Jacket

APPLICATIONS AND FEATURES:

Southwire's 600 Volt Type MC-HL Armor-X® control 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, 250°C for short circuit conditions, and -50°C for cold bend. For uses in Class I, II, and III, Division 1 and 2 hazardous locations per NEC Article 501, 502, and 503.

SPECIFICATIONS:

- ASTM B3 Standard Specification for Soft or Annealed Copper Wire
- ASTM B8 Concentric-Lay-Stranded Copper Conductors
- UL 44 Thermoset-Insulated Wires and Cables
- UL 1569 Metal-Clad Cables (Southwire's UL E96627 file)
- 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-73-532 Standard for Control, Thermocouple Extension and Instrumentation Cables
- ICEA S-95-658 (NEMA WC70) Power Cables Rated 2000 Volts or Less for the Distribution of Electrical Energy
- IEEE 1202 FT4 Vertical Tray Flame Test (70,000 Btu/hr) and ICEA T-29-520 - (210,000 Btu/hr)

SAMPLE PRINT LEGEND:

{SQFTG_DUAL} SOUTHWIRE MASTER-DESIGN ARMOR-X {UL} TYPE MC-HL X/C XXAWG (X.XXmm2}) CU XHHW-2 GW 1 X X AWG 90{D}C JACKET -40{D}C SUN. RES. DIR. BUR. FOR CT USE 600V IEEE1202/FT4 -- {CSA} RA90-HL AGXX XLPE -40{D}C 600V FT4 SR 90{D}C -- CWCMC -- {NOM}-ANCE Tipo MC XHHW-2 CT FT4 -- USA

Table 1 – Physical and Electrical Data

Stock Number	Cond. Size	Cond. Number	Cond. Strands	Diameter Over Cond.	Insul. Thickness	Ground	Diameter Over Armor	Jacket Thickness	Approx. OD	Approx. Weight	DC Resistance @ 25°C	AC Resistance @ 90°C	Min Bending Radius	Allowable Ampacity At 60°C *	Allowable Ampacity 75°C *	Allowable Ampac 90°C
	AWG	No.	strands	inch	mil	No. x AWG	inch	mil	inch	lb /1000ft	Ω /1000ft	Ω /1000ft	inch	Amp	Amp	Amp
14 AWG																
568912^	14	2	7	0.070	30	1 x 14	0.480	60	0.600	169	2.631	3.170	4.2	15	20	25
554894!	14	2	7	0.070	30	1 x 14	0.480	60	0.600	174	2.631	3.170	4.2	15	20	25
550607	14	6	7	0.070	30	1 x 14	0.610	60	0.730	269	2.631	3.170	5.1	12	16	20
550609	14	8	7	0.070	30	1 x 14	0.700	60	0.820	329	2.631	3.170	5.7	10	14	17
890611	14	9	7	0.070	30	1 x 14	0.750	60	0.870	355	2.631	3.170	6.1	10	14	17
550614	14	11	7	0.070	30	1 x 14	0.790	60	0.910	399	2.631	3.170	6.3	7	10	12
890585!	14	12	7	0.070	30	x none	0.790	60	0.910	399	2.631	3.170	6.3	7	10	12
550615	14	18	7	0.070	30	1 x 14	0.920	60	1.040	552	2.631	3.170	7.2	7	10	12
550617	14	36	7	0.070	30	1 x 14	1.220	60	1.346	985	2.631	3.170	9.4	6	8	10
12 AWG																
550810!	12	2	7	0.088	30	1 x 12	0.530	60	0.650	205	1.662	2.002	4.5	20	25	30
568795^^	12	3	7	0.088	30	1 x 12	0.530	60	0.656	234	1.662	2.002	4.5	20	25	30
550611	12	6	7	0.088	30	1 x 12	0.650	60	0.776	343	1.662	2.002	5.4	16	20	24
550610	12	5	7	0.088	30	1 x 12	0.700	60	0.826	332	1.662	2.002	5.7	16	20	24
550618	12	8	7	0.088	30	1 x 12	0.790	60	0.910	428	1.662	2.002	6.3	14	17	21
584189	12	12	7	0.088	30	1 x 12	0.880	60	1.000	548	1.662	2.002	7.0	10	12	15
550619	12	11	7	0.088	30	1 x 12	0.920	60	1.046	540	1.662	2.002	7.3	10	12	15
550620	12	18	7	0.088	30	1 x 12	0.920	60	1.046	720	1.662	2.002	7.3	10	12	15
TBA	12	36	7	0.088	30	1 x 12	1.350	50	1.450	1405	1.662	2.002	10.1	8	10	12
10 AWG																
954321!	10	2	7	0.113	30	1 x 10	0.650	60	0.770	279	1.040	1.253	5.3	30	35	40
550613	10	6	7	0.113	30	1 x 10	0.750	60	0.876	461	1.040	1.253	6.1	24	28	32
550612	10	5	7	0.113	30	1 x 10	0.790	60	0.916	431	1.040	1.253	6.4	24	28	32
550623!	10	11	7	0.113	30	1 x 10	0.920	60	1.040	689	1.040	1.253	7.2	15	17	20
550622	10	8	7	0.113	30	1 x 10	0.920	60	1.046	583	1.040	1.253	7.3	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 310.16 of the NEC 2020 Edition. Ampacities of insulated conductors rated up to and including 2000 Volts with not more than three current-carrying conductors in raceway, cable or direct buried based on ambient temperature of 30ºC (86ºF). Ampacities have been adjusted for more than three current-carrying conductors based on Table 310.15(C) 1.

! UL listed only

^ 14-7 2/C CU XHHW-2 1X#14 GG ARMOR-XTRA MC-HL CSA RA90-HL IEC 600V BLACK PVC JACKET

^^ 12-7 3/C XHHW-2 1X#12 GG ARMOR-XTRA MC-HL CSA RA90-HL IEC 600V BLACK PVC JACKET