

CU 600V XLPE XHHW-2 ARMOR-X PVC Control Cable With Ground

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 on cables with 5 or less conductors
5. **Binder:** Polyester flat thread binder tape applied for cables with more than 5 conductors
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)



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SAMPLE PRINT LEGEND:

{SQFTG} SOUTHWIRE{R} {UL} E96627 ARMOR-X TYPE MC-HL XX/C XXAWG (X.XX{mm2}) CU XHHW-2 GW 1 X XX AWG 90 {D}C JACKET -40{D}C SUN.RES. DIR. BUR. FOR CT USE 600V IEEE1202/FT4 -- {NOM}-ANCE Tipo MC XHHW-2 CT FT4

Stock No: 568912, 568760

SOUTHWIRE MASTER-DESIGN ARMOR-XTRA TYPE MC-HL IEEE1580, IEC60332-3-22, & 60092-350 {UL} 2/C 14 AWG (2.08 {mm2}) CU XHHW-2 GW 1 X 14 AWG 90{D}C JACKET -40{D}C SUN. RES. DIR. BUR. FOR CT USE 600V IEEE1202/FT4 -- {CSA} RA90-HL AG14 XLPE -40{D}C 600V FT4 SR 90{D}C -- {NOM}-ANCE Tipo MC XHHW-2 CT FT4 -- USA



Table 1 – Weights and Measurements

Stock Number	Cond. Size	Cond. Number	Diameter Over Conductor	Insul. Thickness	Ground Size	Jacket Thickness	Approx. OD	Approx. Weight
	AWG/Kcmil	No.	inch	mil	AWG	mil	inch	lb/1000ft
584189	12	12	0.087	30	12	50	1.020	523

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 30°C (86°F). 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

Table 2 – Electrical and Engineering Data

Stock Number	Cond. Size	Cond. Number	DC Resistance @ 25°C	AC Resistance @ 90°C	Min Bending Radius	Allowable Ampacity At 60°C†	Allowable Ampacity At 75°C†	Allowable Ampacity At 90°C†
	AWG/Kcmil	No.	Ω/1000ft	Ω/1000ft	inch	Amp	Amp	Amp
584189	12	12	1.660	2.075	7.1	10	12	15

† 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 30°C (86°F). Ampacities have been adjusted for more than three current-carrying conductors based on Table 310.15(C) 1.

