



# CU 600/1000V XLPE Insulation ARMOR-X® Thermoplastic LSZH-TP Jacket XHHW-2. VFD Cable - CT Rated -Sunlight Resistant - For Direct Burial - Silicone Free

Type MC-HL Power Cable 600 Volt Three Conductor Copper, Cross Linked Polyethylene (XLPE) insulation XHHW-2 Continuous Corrugated Welded Armor - ARMOR-X®, Thermoplastic Solonon® Low Smoke Zero Halogen (LSZH-TP) Jacket with Bare CU Ground



Image not to scale. See Table 1 for dimensions.

## CONSTRUCTION:

- Conductor:** Class B compressed stranded bare copper per ASTM B3 and B8
- Insulation:** Cross Linked Polyethylene (XLPE) Type XHHW-2
- Grounding Conductor:** Class B compressed stranded bare copper per ASTM B3 and B8
- Filler:** Paper filler (cable size 8 & 6 uses Polypropylene filler)
- Binder:** Polypropylene tape
- Armor:** ARMOR-X® Continuous Corrugated Welded Armor
- Overall Jacket:** Thermoplastic Solonon® Low Smoke Zero Halogen (LSZH-TP) Jacket

## APPLICATIONS AND FEATURES:

Southwire's 600 Volt Type MC-HL ARMOR-X® 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, 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. Cables with 3 ground wires suitable for VFD application.

## SPECIFICATIONS:

- ASTM B3 Soft or Annealed Copper Wire
- ASTM B8 Concentric-Lay-Stranded Copper Conductors
- UL 44 Thermoset-Insulated Wires and Cables
- UL 1569 Metal-Clad Cables
- UL 1685 Vertical-Tray Fire Propagation and Smoke Release Test (1/0 and Larger)
- ICEA S-58-679 Control Cable Conductor Identification Method 3 (1-BLACK, 2-RED, 3-BLUE)
- 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





**SAMPLE PRINT LEGEND:**

{SQFTG\_DUAL} SOUTHWIRE® {UL} ARMOR-X® TYPE MC-HL 3/C XXX AWG (XX{mm2}) CU XHHW-2 GW 3 X X AWG 90°C SOLONON® JACKET -40°C ST1 SUN.RES. DIR. BUR. FOR CT USE 600V IEEE1202/FT4 -- VFD -- {NOM}-ANCE Tipo MC XHHW-2 CT FT4

**Table 1 – Weights and Measurements**

| Cond. Size | Cond. Number | Strand Count   | Diameter Over Conductor | Insul. Thickness | Ground    | Dia. Over Armor | Jacket Thickness | Approx. OD | Copper Weight | Approx. Weight | Jacket Color |
|------------|--------------|----------------|-------------------------|------------------|-----------|-----------------|------------------|------------|---------------|----------------|--------------|
| AWG/Kcmil  |              | No. of Strands | inch                    | mil              | No. x AWG | inch            | mil              | inch       | lb/1000ft     | lb/1000ft      |              |
| 2/0        | 3            | 19             | 0.405                   | 55               | 3 x 10    | 1.470           | 50               | 1.576      | 1342          | 1992           | Black        |

All dimensions are nominal and subject to normal manufacturing tolerances

◊ Cable marked with this symbol is a standard stock item

TBA stock codes are estimations only and actual product may vary. Please wait until a stock code is assigned to purchase connectors and/or fittings.

**Table 2 – Electrical and Engineering Data**

| Cond. Size | Cond. Number | Min Bending Radius | Max Pull Tension | DC Resistance @ 25°C | AC Resistance @ 75°C | Capacitive Reactance @ 60Hz | Inductive Reactance @ 60Hz | Allowable Ampacity At 75°C | Allowable Ampacity At 90°C |
|------------|--------------|--------------------|------------------|----------------------|----------------------|-----------------------------|----------------------------|----------------------------|----------------------------|
| AWG/Kcmil  |              | inch               | lb               | Ω/1000ft             | Ω/1000ft             | MΩ*1000ft                   | Ω/1000ft                   | Amp                        | Amp                        |
| 2/0        | 3            | 11.0               | 3194             | 0.081                | 0.097                | 0.016                       | 0.043                      | 175                        | 195                        |

\* Ampacities based upon 2023 NEC Table 310.16. See NEC sections 310.15 and 110.14(C) for additional requirements.

VFD Sizing Calculator

