

# CU 600/1000V XLPE Insulation ARMOR-X<sup>®</sup> 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<sup>®</sup>, Thermoplastic Solonon® Low Smoke Zero Halogen (LSZH-TP) Jacket with Bare CU Ground

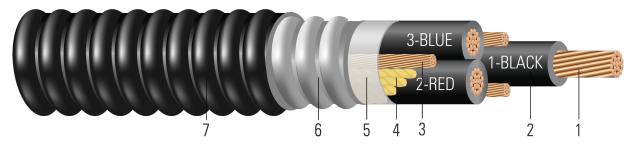


Image not to scale. See Table 1 for dimensions.

### **CONSTRUCTION:**

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

### **APPLICATIONS AND FEATURES:**

Southwire's 600 Volt Type MC-HL ARMOR-X<sup>®</sup> 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<sup>®</sup> 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.<br>Size | Cond.<br>Number | Strand<br>Count   | Diameter Over<br>Conductor | Insul.<br>Thickness | Ground       | Dia. Over<br>Armor | Jacket<br>Thickness | Approx.<br>OD | Copper<br>Weight | Approx.<br>Weight | Jacket<br>Color |
|---------------|-----------------|-------------------|----------------------------|---------------------|--------------|--------------------|---------------------|---------------|------------------|-------------------|-----------------|
| AWG/<br>Kcmil |                 | No. of<br>Strands | inch                       | mil                 | No. x<br>AWG | inch               | mil                 | inch          | lb/1000ft        | lb/1000ft         |                 |
| 8             | 3               | 7                 | 0.141                      | 45                  | 3 x 14       | 0.750              | 50                  | 0.850         | 186              | 444               | Black           |

All dimensions are nominal and subject to normal manufacturing tolerances

## Table 2 – Electrical and Engineering Data

| Cond.<br>Size | Cond.<br>Number | Min<br>Bending<br>Radius | Max Pull<br>Tension | DC Resistance<br>@ 25°C | AC Resistance<br>@ 75°C | Capacitive<br>Reactance @<br>60Hz | Inductive<br>Reactance @<br>60Hz | Allowable<br>Ampacity At<br>75°C | Allowable<br>Ampacity At<br>90°C |
|---------------|-----------------|--------------------------|---------------------|-------------------------|-------------------------|-----------------------------------|----------------------------------|----------------------------------|----------------------------------|
| AWG/<br>Kcmil |                 | inch                     | lb                  | Ω/1000ft                | Ω/1000ft                | MΩ*1000ft                         | Ω/1000ft                         | Amp                              | Amp                              |
| 8             | 3               | 6.0                      | 396                 | 0.653                   | 0.786                   | 0.033                             | 0.052                            | 50                               | 55                               |

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





<sup>♦</sup> 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.