**SPEC 45351** Stock #: 890516

# CU 600/1000V XLPE Insulation ARMOR-X® PVC Jacket XHHW-2. VFD Cable - CT Rated -Sunlight Resistant - For Direct Burial - Silicone Free Type MC-HL Power Cable 600Volt Three Conductor Copper, Cross Linked Polyethylene (XLPE) insulation XHHW-2 Continuous

Corrugated Welded Armor - ARMOR-X<sup>®</sup>, Polyvinyl Chloride (PVC) Jacket with 3 Bare CU Ground

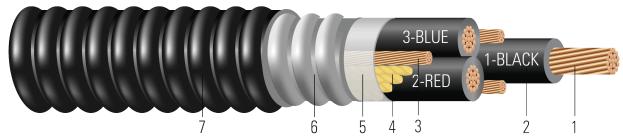


Image not to scale. See Table 1 for dimensions.

### **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: Polyvinyl Chloride (PVC) 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. 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 FT4 Vertical-Tray Fire Propagation and Smoke Release Test
- CSA C22.2 No. 123 Metal sheathed cables RA90-HL
- 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 4
- 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)









UPDATED: April 25, 2024, 12:05 p.m.UTC REVISION: 1.000.010

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# **SAMPLE PRINT LEGEND:**

 $\{ \texttt{SQFTG\_DUAL} \} \ \texttt{SOUTHWIRE} \ \texttt{ARMOR-X}^{\circledR} \ \{ \texttt{UL} \} \ \texttt{TYPE} \ \texttt{MC-HL} \ \texttt{3/C} \ \texttt{XXX} \ \texttt{KCMIL} \ (\texttt{XXX}\{\texttt{mm2}\}) \ \texttt{CU} \ \texttt{XHHW-2} \ \texttt{GW} \ \texttt{3} \ \texttt{X} \ \texttt{X} \ \texttt{AWG} \ \texttt{90°C}$ JACKET -40°C SUN. RES. DIR. BUR. FOR CT USE 600V IEEE1202/FT4 -- {CSA} RA90-HL AG14 XLPE -40°C 600V FT4 SR 90°C -- {NOM}-ANCE Tipo MC XHHW-2 CT FT4 -- VFD USA

# **Table 1 – Weights and Measurements**

| Stock<br>Number | 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 |
|-----------------|---------------|-----------------|-------------------|----------------------------|---------------------|--------------|--------------------|---------------------|---------------|------------------|-------------------|
|                 | AWG/<br>Kcmil |                 | No. of<br>Strands | inch                       | mil                 | No. x<br>AWG | inch               | mil                 | inch          | lb/1000ft        | lb/1000ft         |
| 890516◊         | 1/0           | 3               | 19                | 0.361                      | 55                  | 3 x 10       | 1.350              | 50                  | 1.456         | 1085             | 1745              |

All dimensions are nominal and subject to normal manufacturing tolerances

# **Table 2 – Electrical and Engineering Data**

| Stock<br>Number | 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                              |
| 890516◊         | 1/0           | 3               | 10.2                     | 2534                | 0.102                   | 0.122                   | 0.017                             | 0.044                            | 150                              | 170                              |

<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