# 3/C CU 600V XLPE XHHW-2 ARMOR-X PVC Power Cable With Ground VFD

Type MC-HL Power Cable 600Volt Three Conductor Copper, Cross Linked Polyethylene (XLPE) insulation XHHW-2 Continuous Corrugated Welded Armor (Armor-X), Polyvinyl Chloride (PVC) Jacket with 3 Bare CU Ground

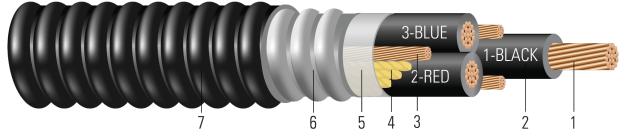


Image not to scale. See Table 1 for dimensions.

#### **CONSTRUCTION:**

- 1. Conductor: Class B compressed stranded bare copper per ASTM B3 and ASTM B8
- 2. Insulation: Cross Linked Polyethylene (XLPE) Type XHHW-2
- 3. Grounding Conductor: Class B compressed stranded bare copper per ASTM B3 and ASTM B8
- 4. Filler: Paper filler (cable size 8 & 6 uses Polypropylene filler)
- 5. Binder: Polypropylene tape
- 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® 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 Standard Specification for Soft or Annealed Copper Wire
- ASTM B8 Concentric-Lay-Stranded Copper Conductors
- UL 44 Thermoset-Insulated Wires and Cables
- UL 1309 Marine Shipboard Cable
- UL 1569 Metal-Clad Cables
- UL 1685 FT4 Vertical-Tray Fire Propagation and Smoke Release Test
- 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 Vertical Tray Flame Test (70,000 Btu/hr) and ICEA T-29-520 (210,000 Btu/hr)
- ABS Listed as CWCMC

#### **SAMPLE PRINT LEGEND**:

SOUTHWIRE EXXXXX #P# ARMOR-X (UL) [#AWG Or #kcmil] CU XHHW-2 XLPE/PVC 600V Type MC-HL For CT USE SUN. RES. For DIRECT BURIAL FT4 [-50°C] YEAR (NESC) [SEQUENTIAL FEET MARKS]



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# **SPEC 45351**

#### **Table 1 – Weights and Measurements**

| Stock<br>Number | Cond.<br>Size | Diameter Over<br>Conductor | Insul.<br>Thickness | Diameter Over<br>Insulation | Ground       | Diameter Over<br>Armor | Jacket<br>Thickness | Approx.<br>OD | Copper<br>Weight | Approx.<br>Weight |
|-----------------|---------------|----------------------------|---------------------|-----------------------------|--------------|------------------------|---------------------|---------------|------------------|-------------------|
|                 | AWG/<br>Kcmil | inch                       | mil                 | inch                        | No. x<br>AWG | inch                   | mil                 | inch          | lb/1000ft        | lb/1000ft         |
| 890515◊         | 2             | 0.277                      | 45                  | 0.367                       | 3 x 10       | 1.020                  | 50                  | 1.120         | 718              | 1062              |

All dimensions are nominal and subject to normal manufacturing tolerances

◊ Cable marked with this symbol is a standard stock item

## Table 2 – Electrical and Engineering Data

| Stock<br>Number | Cond.<br>Size | Min<br>Bending<br>Radius | Max Pull<br>Tension | DC<br>Resistance @<br>25°C | AC<br>Resistance @<br>90°C | Inductive<br>Reactance @<br>60Hz | Shield Short<br>Circuit Current<br>6 Cycles | Allowable<br>Ampacity At<br>60°C† | Allowable<br>Ampacity At<br>75°C† | Allowable<br>Ampacity At<br>90°C† |
|-----------------|---------------|--------------------------|---------------------|----------------------------|----------------------------|----------------------------------|---|-----------------------------------|-----------------------------------|-----------------------------------|
|                 | AWG/<br>Kcmil | inch                     | lb                  | Ω/1000ft                   | Ω/1000ft                   | Ω/1000ft                         | Amp   | Amp                               | Amp                               | Amp                               |
| 890515◊         | 2             | 7.8                      | 1593                | 0.162                      | 0.203                      | 0.028                            | 15089                                       | 95                                | 115                               | 130                               |

<sup>+</sup> Ampacities are based on Table 310.15 (B)(16) of the NEC, 2017 Edition. Ampacities of insulated conductors rated up to and including 2000 Volts, based on ambient temperature of 30°C (86°F)

