**SPEC 45351** Stock #: 646751

# 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

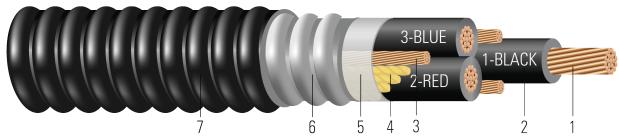


Image not to scale. See Table 1 for dimensions.

## **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)











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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 Number	Cond. Size	Cond. Number	Strand Count	Diameter Over Conductor	Insul. Thickness	Ground	Dia. Over Armor	Jacket Thickness	Approx. OD	Copper Weight	Approx. Weight
	AWG/ Kcmil		No. of Strands	inch	mil	No. x AWG	inch	mil	inch	lb/1000ft	lb/1000ft
646751	600	3	61	0.865	80	3 x 6	2.670	75	2.828	5858	7243

All dimensions are nominal and subject to normal manufacturing tolerances

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

Stock Number	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
646751	600	3	19.8	14400	0.018	0.025	0.011	0.039	420	475

<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