# 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

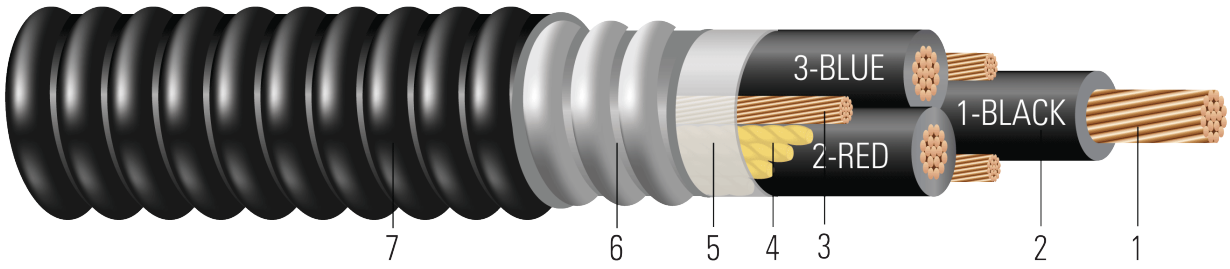



Image not to scale. See Table 1 for dimensions.

## CONSTRUCTION:

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® 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® 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



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## 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

| 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 |
| TBA | 8 | 3 | 7 | 0.141 | 45 | 3 x 14 | 0.750 | 50 | 0.850 | 186 | 444 |
| TBA | 6 | 3 | 7 | 0.177 | 45 | 3 x 12 | 0.840 | 50 | 0.940 | 296 | 589 |
| 647699 | 4 | 3 | 7 | 0.225 | 45 | 1 x 8 | 0.920 | 50 | 1.020 | 439 | 718 |
| 677933 | 2 | 3 | 7 | 0.282 | 45 | 1 x 6 | 1.020 | 50 | 1.120 | 699 | 1045 |
| TBA | 1/0 | 3 | 19 | 0.361 | 55 | 3 x 10 | 1.350 | 50 | 1.450 | 1067 | 1679 |
| 672673 | 2/0 | 3 | 19 | 0.405 | 55 | 3 x 10 | 1.470 | 50 | 1.576 | 1342 | 1992 |
| TBA | 2/0 | 3 | 19 | 0.405 | 55 | 3 x 10 | 1.480 | 50 | 1.580 | 1324 | 2001 |
| 586674 | 3/0 | 3 | 19 | 0.456 | 55 | 3 x 8 | 1.540 | 60 | 1.660 | 1724 | 2427 |
| TBA | 4/0 | 3 | 19 | 0.512 | 55 | 3 x 8 | 1.670 | 60 | 1.790 | 2105 | 2963 |
| TBA | 250 | 3 | 37 | 0.558 | 65 | 3 x 8 | 1.845 | 60 | 1.965 | 2465 | 3458 |
| TBA | 350 | 3 | 37 | 0.661 | 65 | 3 x 6 | 2.200 | 60 | 2.320 | 3435 | 4623 |
| TBA | 500 | 3 | 37 | 0.789 | 65 | 3 x 6 | 2.430 | 75 | 2.580 | 4878 | 6371 |
| TBA | 750 | 3 | 61 | 0.968 | 80 | 3 x 4 | 2.880 | 75 | 3.030 | 7268 | 9190 |

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 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 |
| TBA | 8 | 3 | 6.0 | 396 | 0.653 | 0.786 | 0.033 | 0.052 | 50 | 55 |
| TBA | 6 | 3 | 6.6 | 629 | 0.411 | 0.495 | 0.027 | 0.051 | 65 | 75 |
| 647699 | 4 | 3 | 7.1 | 1001 | 0.258 | 0.310 | 0.022 | 0.048 | 85 | 95 |
| 677933 | 2 | 3 | 7.8 | 1592 | 0.162 | 0.195 | 0.018 | 0.045 | 115 | 130 |
| TBA | 1/0 | 3 | 10.2 | 2534 | 0.102 | 0.122 | 0.017 | 0.044 | 150 | 170 |
| 672673 | 2/0 | 3 | 11.0 | 3194 | 0.081 | 0.097 | 0.016 | 0.043 | 175 | 195 |
| TBA | 2/0 | 3 | 11.1 | 3194 | 0.081 | 0.097 | 0.016 | 0.043 | 175 | 195 |
| 586674 | 3/0 | 3 | 11.6 | 4027 | 0.064 | 0.078 | 0.014 | 0.042 | 200 | 225 |
| TBA | 4/0 | 3 | 12.5 | 5078 | 0.051 | 0.062 | 0.013 | 0.041 | 230 | 260 |
| TBA | 250 | 3 | 13.8 | 6000 | 0.043 | 0.053 | 0.014 | 0.041 | 255 | 290 |
| TBA | 350 | 3 | 16.2 | 8400 | 0.031 | 0.039 | 0.012 | 0.040 | 310 | 350 |
| TBA | 500 | 3 | 18.1 | 12000 | 0.022 | 0.029 | 0.010 | 0.039 | 380 | 430 |
| TBA | 750 | 3 | 21.2 | 18000 | 0.014 | 0.022 | 0.010 | 0.038 | 475 | 535 |

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