

# CU 600/1000V XLPE Insulation ARMOR-X<sup>®</sup> Thermoplastic LSZH-TP Jacket XHHW-2. CT Rated -Sunlight Resistant - For Direct Burial - Silicone Free

Type MC-HL Power Cable 600Volt Four Conductor Copper, Cross Linked Polyethylene (XLPE) insulation XHHW-2 Continuous Corrugated Welded Armor - ARMOR-X<sup>®</sup>, Thermoplastic SOLONON<sup>®</sup> Low Smoke Zero Halogen (LSZH-TP) Jacket with 1 Bare CU Ground

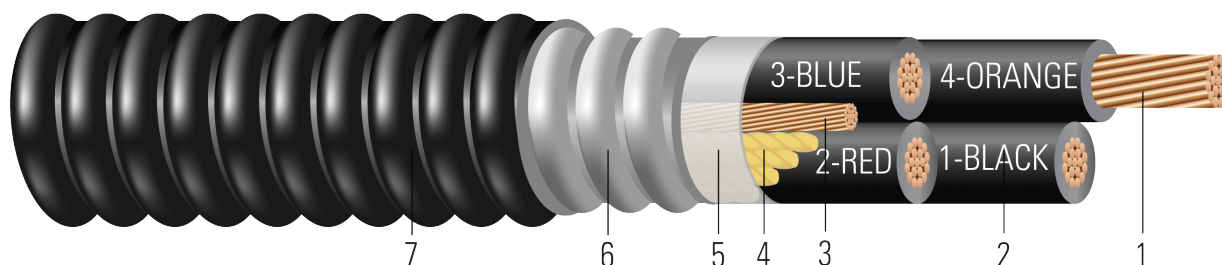


Image not to scale. See Table 1 for dimensions.

## 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<sup>®</sup> 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.

## 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
- 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
- NFPA 130 Standard for Fixed Guideway Transit and Passenger Rail Systems (500kcmil & Larger)



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**SAMPLE PRINT LEGEND:**

{SQFTG\_DUAL} SOUTHWIRE® {UL} ARMOR-X® TYPE MC-HL 4/C XXX AWG (XXX{mm2}) CU XHHW-2 GW 1 X X AWG 90°C SOLONON® JACKET -40°C ST1 SUN.RES. DIR. BUR. FOR CT USE 600V IEEE1202/FT4 -- {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          | 4            | 7              | 0.141                   | 45               | 1 x 10    | 0.790           | 50               | 0.890      | 237           | 504            |
| TBA          | 6          | 4            | 7              | 0.177                   | 45               | 1 x 8     | 0.920           | 50               | 1.020      | 378           | 691            |
| 641520       | 4          | 4            | 7              | 0.225                   | 45               | 1 x 8     | 1.020           | 50               | 1.120      | 569           | 914            |
| TBA          | 2          | 4            | 7              | 0.282                   | 45               | 1 x 6     | 1.220           | 50               | 1.320      | 907           | 1358           |
| TBA          | 1/0        | 4            | 19             | 0.361                   | 55               | 1 x 6     | 1.480           | 50               | 1.580      | 1395          | 2030           |
| 572421       | 2/0        | 4            | 19             | 0.405                   | 55               | 1 x 4     | 1.540           | 60               | 1.660      | 1790          | 2444           |
| 550856       | 4/0        | 4            | 19             | 0.512                   | 55               | 1 x 4     | 1.845           | 60               | 1.965      | 2769          | 3541           |
| TBA          | 250        | 4            | 37             | 0.558                   | 65               | 1 x 4     | 2.040           | 60               | 2.160      | 3245          | 4253           |
| TBA          | 350        | 4            | 37             | 0.661                   | 65               | 1 x 3     | 2.290           | 75               | 2.440      | 4526          | 5787           |
| 563069       | 500        | 4            | 37             | 0.789                   | 65               | 1 x 2     | 2.670           | 75               | 2.820      | 6443          | 7756           |
| TBA          | 750        | 4            | 61             | 0.968                   | 80               | 1 x 1     | 3.220           | 85               | 3.390      | 9607          | 11602          |

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          | 4            | 6.2                | 422              | 0.653                | 0.786                | 0.033                       | 0.052                      | 40                         | 44                         |
| TBA          | 6          | 4            | 7.1                | 671              | 0.411                | 0.495                | 0.027                       | 0.051                      | 52                         | 60                         |
| 641520       | 4          | 4            | 7.8                | 1068             | 0.258                | 0.310                | 0.022                       | 0.048                      | 68                         | 76                         |
| TBA          | 2          | 4            | 9.2                | 1698             | 0.162                | 0.195                | 0.018                       | 0.045                      | 92                         | 104                        |
| TBA          | 1/0        | 4            | 11.1               | 2703             | 0.102                | 0.122                | 0.017                       | 0.044                      | 120                        | 136                        |
| 572421       | 2/0        | 4            | 11.6               | 3407             | 0.081                | 0.097                | 0.016                       | 0.043                      | 140                        | 156                        |
| 550856       | 4/0        | 4            | 13.8               | 5416             | 0.051                | 0.062                | 0.013                       | 0.041                      | 184                        | 208                        |
| TBA          | 250        | 4            | 15.1               | 6400             | 0.043                | 0.053                | 0.014                       | 0.041                      | 204                        | 232                        |
| TBA          | 350        | 4            | 17.1               | 8960             | 0.031                | 0.039                | 0.012                       | 0.040                      | 248                        | 280                        |
| 563069       | 500        | 4            | 19.7               | 12800            | 0.022                | 0.029                | 0.010                       | 0.039                      | 304                        | 344                        |
| TBA          | 750        | 4            | 23.7               | 19200            | 0.014                | 0.022                | 0.010                       | 0.038                      | 380                        | 428                        |

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

\* Ampacities have been adjusted for more than Three Current-Carrying Conductors.

