# CU Compressed 2.4kV XLPE Insulation.

Type MV-90 Dry Single Conductor Copper, Non-Shielded Cross Linked Polyethylene (XLPE). Silicone Free

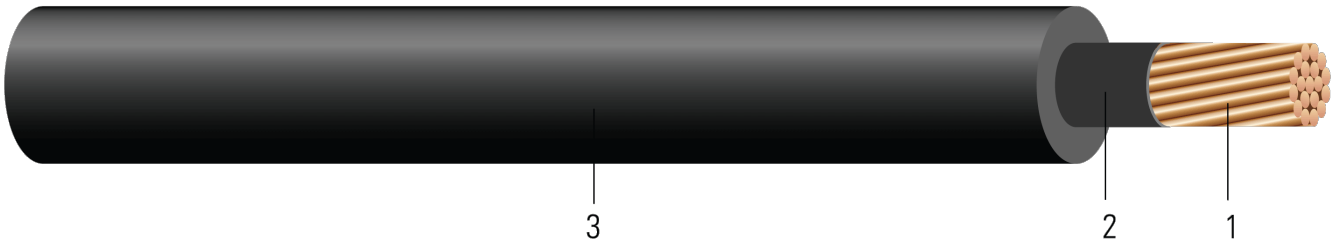



Image not to scale. See Table 1 for dimensions.

## CONSTRUCTION:

1. **Conductor:** Class B compressed stranded bare copper per ASTM B3 and ASTM B8 (Tinned Copper per ASTM B33 optional)
2. **Conductor Shield:** Semi-conducting cross-linked copolymer
3. **Insulation:** Cross Linked Polyethylene (XLPE)

## APPLICATIONS AND FEATURES:

Southwire's 2.4KV XLPE cables are suited for use in dry areas, conduits, ducts, troughs, trays 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, 130°C for emergency overload, and 250°C for short circuit conditions. Rated at -35°C for cold bend when UL listed. Rated at -25°C for cold bend and cold impact and marked with "LTDD" when CSA listed or dual UL/CSA listed. Rated for 1000 lbs./FT maximum sidewall pressure. Silicone Free.

## SPECIFICATIONS:

- ASTM B3 Soft or Annealed Copper Wire
- ASTM B8 Concentric-Lay-Stranded Copper Conductors
- ASTM B33 Standard Specification for Tin-Coated Soft or Annealed Copper Wire
- UL 1072 Medium-Voltage Power Cables
- ICEA S-96-659 (NEMA WC 71) 2001-5000 V Nonshielded Cables
- Made in America: Compliant with both Buy American and Buy America Act (BAA) requirements per 49 U.S.C. § 5323(j) and the Federal Transit Administration Buy America requirements per 49 C.F.R. part 661

## SAMPLE PRINT LEGEND:

SOUTHWIRE [SYMBOL - LIGHTING BOLT] #P# (UL) 1/C [#AWG or #kcmil] CU XLPE 2.4KV MV-90 SUN. RES. YEAR (NESC) [SEQUENTIAL FEET MARKS]



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## Table 1 – Weights and Measurements

| Stock Number | Cond. Size | Strand Count | Diameter Over Conductor | Insul. Thickness | Approx. OD | Copper Weight | Approx. Weight | Max Pull Tension | Min Bending Radius | Conduit Size |
|---|---|---|---|---|---|---|---|---|---|---|
| | AWG/ Kcmil | No. of Strands | inch | mil | inch | lb/1000ft | lb/1000ft | lb | inch | inch |
| 584689 | 6 | 7 | 0.174 | 110 | 0.430 | 81 | 137 | 210 | 3.4 | 1.5 |
| 584690 | 4 | 7 | 0.225 | 110 | 0.481 | 128 | 215 | 334 | 3.8 | 1.5 |
| 584691 | 2 | 7 | 0.283 | 110 | 0.537 | 205 | 313 | 531 | 4.3 | 1.5 |
| 665627 | 750 | 61 | 0.968 | 135 | 1.300 | 2315 | 2564 | 6000 | 10.4 | 4 |

All dimensions are nominal and subject to normal manufacturing tolerances
◊ Cable marked with this symbol is a standard stock item
TBA stock codes are estimations only and actual product may vary. Please wait until a stock code is assigned to purchase connectors and/or fittings.

## Table 2 – Electrical and Engineering Data

| Cond. Size | DC Resistance @ 25°C | AC Resistance @ 90°C | Inductive Reactance @ 60Hz | Allowable Ampacity In Duct 90°C | Allowable Ampacity In Air 90°C |
|---|---|---|---|---|---|
| AWG/ Kcmil | Ω/1000ft | Ω/1000ft | Ω/1000ft | Amp | Amp |
| 6 | 0.411 | 0.515 | 0.042 | 85 | 110 |
| 4 | 0.258 | 0.323 | 0.039 | 110 | 145 |
| 2 | 0.162 | 0.203 | 0.036 | 145 | 190 |
| 750 | 0.144 | 0.022 | 0.028 | 585 | 900 |

* NEC ampacities are based on:
* For Duct: Table 315.60(C)(11) Detail 1.
* For Free Air: Table 315.60(C)(3).
* Inductive impedance is based on non-ferrous conduit with one diameter spacing center-to-center.


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