# CU Compressed 2.4kV NLEPR Insulation PVC Jacket. MV 90.

Type MV-90 Single Conductor Copper, No Lead Ethylene Propylene Rubber (NL-EPR) Polyvinyl Chloride (PVC) Jacket




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:** No Lead Ethylene Propylene Rubber (NL-EPR)
4. **Overall Jacket:** Polyvinyl Chloride (PVC)

### Insulation thickness:

Sizes #2 - 4/0 Insulation Thickness: 125 mils
Sizes 250 - 500 Insulation Thickness: 140 mils
Sizes 750 - 1000 Insulation Thickness: 155 mils

## APPLICATIONS AND FEATURES:

Southwire's 2.4KV cables are suited for use in wet and dry areas, conduits, ducts, troughs, direct burial, 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. Cable can be installed in conduit without the aid of lubrication. Rated for 1000 lbs./FT maximum sidewall pressure.

## 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
- UL 1685 Vertical-Tray Fire Propagation and Smoke Release Test
- ICEA S-96-659 (NEMA WC 71) 2001-5000 V Nonshielded Cables
- CT USE Sizes 1/0 AWG and Larger
- 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:

{SQFTG_DUAL} SOUTHWIRE{R} POWER CABLE {UL} XX AWG CU XXX MILS NL-EPR 2400V NONSHIELDED MV-90 SUN. RES. FOR CT USE {NESC}


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## Table 1 – Weights and Measurements

| Stock Number | Cond. Size | Strand Count | Diameter Over Conductor | Diameter Over Insulation | Jacket Thickness | Approx. OD | Copper Weight | Approx. Weight | Max Pull Tension | Min Bending Radius | Conduit Size |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | AWG/ Kcmil | No. of Strands | inch | inch | mil | inch | lb/1000ft | lb/1000ft | lb | inch | inch |
| 607242 | 3/0 | 19 | 0.456 | 0.745 | 105 | 0.955 | 518 | 830 | 1342 | 7.6 | 3.0 |

All dimensions are nominal and subject to normal manufacturing tolerances
◊ Cable marked with this symbol is a standard stock item
* Conduit size based on 3 phase 40% fill-factor without ground

## Table 2 – Electrical and Engineering Data

| Cond. Size | DC Resistance @ 25°C | AC Resistance @ 90°C | Inductive Reactance @ 60Hz | Allowable Ampacity In Duct 90/105°C | Allowable Ampacity In Air 90/105°C |
|---|---|---|---|---|---|
| AWG/ Kcmil | Ω/1000ft | Ω/1000ft | Ω/1000ft | Amp | Amp |
| 3/0 | 0.064 | 0.081 | 0.0381 | 250/- | 345/- |

* 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.

## Cables With SIMpull Jacket

| Size | Stock Code |
|---|---|
| AWG | |
| #2 | 607457 |
| 500 | 601484 |


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