# NMWU Copper

Copper Conductors, 300V / -40ºC MIN, 60ºC MAX, PVC Insulation, PVC Jacket

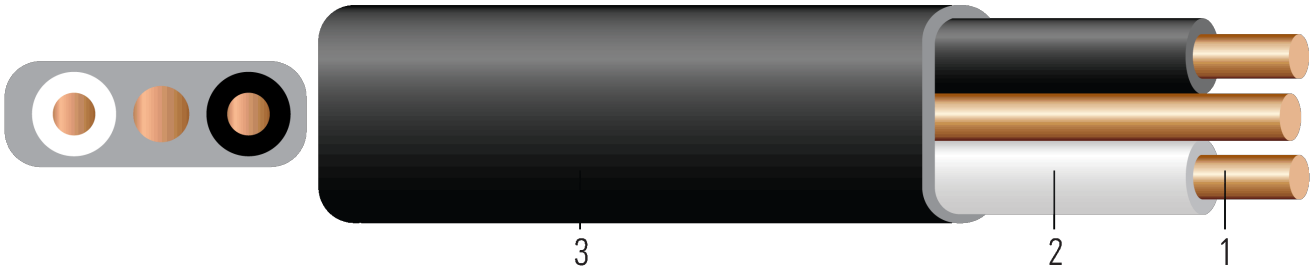



Image not to scale. See Table 1 for dimensions.

## CONSTRUCTION:

1. **Conductor:** Bare copper per ASTM B3. Sizes #14 AWG - #10 AWG are solid. Sizes #8 AWG - #2 AWG are Class B compressed stranded per ASTM B8.
2. **Insulation:** All phases are insulated with heat-resistant thermoplastic polyvinyl chloride (PVC) insulation
3. **Jacket:** Polyvinyl Chloride (PVC) jacket. Sunlight, moisture, and fungus-resistant

- Conductor Colors: 2/C Black, White
- Conductor Colors: 3/C Black, Red, White

## APPLICATIONS AND FEATURES:

Southwire's CSA-NWMU cables may be used for underground installations, including direct burial. It may also be used for environments exposed to the weather in dry and wet locations. The maximum allowable conductor temperature is 60°C. The minimum recommended installation temperature is -40°C for two-conductor cables (sizes AWG 14 to AWG 6) and -25°C for all other sizes. For three-conductor cables the minimum recommended installation temperature is -10°C (with suitable handling procedures). Material should be properly stored above 0°C for 24 hours prior to installation. The maximum voltage rating for all intended applications is 300 volts. Consult the Canadian Electrical Code for further information related to applications.

## SPECIFICATIONS:

- ASTM B3 Soft or Annealed Copper Wire
- ASTM B8 Concentric-Lay-Stranded Copper Conductors
- CSA C22.2 No. 48 non-metallic sheathed cable
- FT1 Flame Test (1,706 BTU/Hr nominal - Vertical Wire Flame Test)

## SAMPLE PRINT LEGEND:

SOUTHWIRE LL90458 MASTER-DESIGN CSA XX AWG CU XX CDRS NMWU 300 VOLTS FT1

### Table 1 – Weights and Measurements

| Stock Number | Cond. Size | Conductor Number | Diameter Over Conductor | Conductor Stranding | Insulation Thickness | Ground Size | Jacket Thickness | Approx. OD | Copper Weight | Overall Weight |
|---|---|---|---|---|---|---|---|---|---|---|
| | AWG/ Kcmil | | inch | | mils | No. x AWG | mil | inch | lbs/1000ft | lbs/1000ft |
| 12 AWG \| Solid | | | | | | | | | | |
| 471854◊ | 12 | 2 | 0.080 | Solid | 60 | 1 x 14 | 30 | 0.261x0.526 | 51 | 109 |



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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

| Cond. Size | Conductor Number | Min. Bend Radius | DC Resistance at 25°C | AC Resistance at 75°C | Inductive Reactance @ 60Hz | Allowable Ampacity Raceway 75°C | Allowable Ampacity Raceway 90°C |
|---|---|---|---|---|---|---|---|
| AWG/ Kcmil | | Inches | Ω/1000ft | Ω/1000ft | Ω/1000ft | Amp | Amp |
| 12 AWG \| Solid | | | | | | | |
| 12 | 2 | 2.400 | 1.662 | 2.002 | 0.054 | 25 | 30 |

* Ampacity values based on Canadian Electrical Code, Part 1 2024 Table 2 and do not take into account the overcurrent protection limitations in CEC Rule 14-104(2) of 15 A for 14 AWG Cu, 20 A for 12 AWG Cu, and 30 A for 10 AWG Cu (independent of the conductor temperature rating and stranding). See also CEC Rules 4-004 and 4-006 for additional requirements.
* Inductive impedance is based on non-ferrous conduit with one diameter spacing center-to-center.


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