

# Romex<sup>®</sup> Brand SIMpull<sup>®</sup> Copper Type NM-B Cable

Nonmetallic-Sheathed Cable. 600 Volt. Copper Conductor. PVC Insulation/Nylon Sheath. PVC Jacket with SIMpull<sup>®</sup> Technology for Easier Pulling.

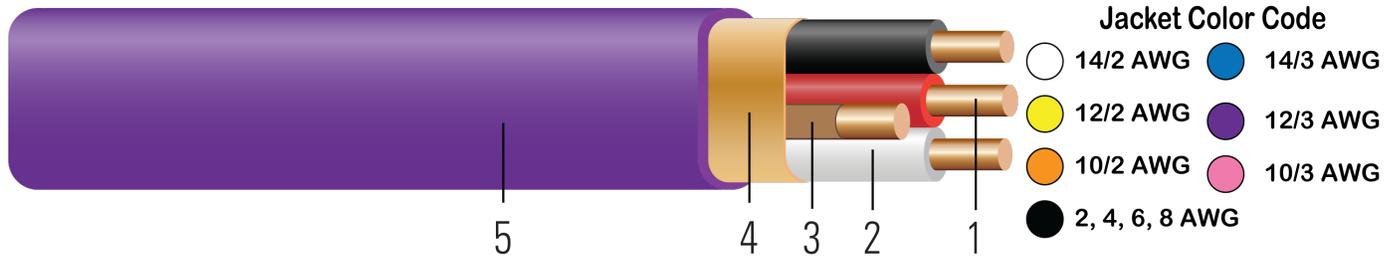


Image not to scale. See Table 1 for dimensions.

## CONSTRUCTION:

- 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
- Insulation:** All phases and neutral(s) are insulated with Polyvinyl Chloride (PVC) with Nylon Sheath  
**Color Code:**  
2/C: Black, White  
3/C: Black, Red, White  
4/C: Black, Red, Blue, White
- Ground:** Solid soft drawn bare copper with kraft paper wrap
- Binder:** Kraft paper
- Jacket:** Polyvinyl Chloride (PVC) jacket utilizing SIMpull<sup>®</sup> Technology

## APPLICATIONS AND FEATURES:

Southwire Romex<sup>®</sup> Brand SIMpull<sup>®</sup> (nonmetallic-sheathed) Cable may be used for both exposed and concealed work in dry locations with ampacity limited to that for 60°C conductors as specified in the National Electrical Code<sup>®</sup> (NEC). Individual conductor insulation is rated 90°C as required by the NEC and by the UL product standard (UL 719) for terminations in lighting fixtures. NM-B cable is primarily used in residential wiring as branch circuits for outlets, switches, and other loads. NM-B cable may be run in air voids of masonry block or tile walls where such walls are not wet or damp locations. Voltage rating for NM-B cable is 600 volts. Individual conductors within Type NM-B Cable are not listed or marked as THHN conductors (or any other NEC recognized conductor type) and are not permitted to be installed apart from the complete Type NM-B Cable. Conductors routed inside panelboards and boxes (without the cable jacket) for termination therein are considered part of the complete Type NM-B Cable.

## SPECIFICATIONS:

- ASTM B3 Soft or Annealed Copper Wire
- ASTM B8 Concentric-Lay-Stranded Copper Conductors
- UL 719 Nonmetallic-Sheathed Cables
- RoHS-2 (European Directive 2011/65/EU)
- Federal Specification A-A-59544
- NOM-063-SCFI Electrical Products – Conductors – Safety Requirements





**SAMPLE PRINT LEGEND:**

E18679 (UL) ROMEX® SIMpull{TM} XX AWG (X.XXmm<sup>2</sup>) CU X CDR WITH XX AWG (mm<sup>2</sup>) GROUND TYPE NM-B 600 VOLTS NOM-ANCE PAT www.patentSW.com

**Table 1 – Weights and Measurements**

| Stock Number | Cond. Size    | Cond. Number | Strand Count   | Diameter Over Conductor | Insul. Thickness | Insulation Color  | Ground    | Jacket Thickness | Approx. OD  | Copper Weight | Approx. Weight | Jacket Color |
|--------------|---------------|--------------|----------------|-------------------------|------------------|-------------------|-----------|------------------|-------------|---------------|----------------|--------------|
|              | AWG/<br>Kcmil |              | No. of Strands | inch                    | mil              |                   | No. x AWG | mil              | inch        | lb/1000ft     | lb/1000ft      |              |
| 550482◇*     | 14            | 4            | Solid          | 0.064                   | 20               | BK, WE, RD, WE/RD | 1 x 14    | 30               | 0.350       | 62            | 96             | WE           |
| 288274◇      | 14            | 2            | Solid          | 0.064                   | 20               | BK, WE            | 1 x 14    | 25               | 0.372x0.176 | 37            | 61             | WE           |
| 639469◇      | 14            | 3            | Solid          | 0.064                   | 20               | BK, WE, RD        | 1 x 14    | 25               | 0.478x0.176 | 49            | 81             | BE           |
| 550542◇      | 12            | 4            | Solid          | 0.080                   | 20               | BK, WE, RD, BE    | 1 x 12    | 30               | 0.395       | 99            | 138            | YW           |
| 288282◇      | 12            | 2            | Solid          | 0.080                   | 20               | BK, WE            | 1 x 12    | 25               | 0.422x0.190 | 59            | 87             | YW           |
| 639478◇      | 12            | 3            | Solid          | 0.080                   | 20               | BK, WE, RD        | 1 x 12    | 25               | 0.524x0.190 | 79            | 115            | PE           |
| 555832◇      | 10            | 4            | Solid          | 0.101                   | 20               | BK, WE, RD, BE    | 1 x 10    | 30               | 0.479       | 154           | 206            | OE           |
| 288290◇      | 10            | 2            | Solid          | 0.101                   | 20               | BK, WE            | 1 x 10    | 25               | 0.505x0.218 | 91            | 126            | OE           |
| 639485◇      | 10            | 3            | Solid          | 0.101                   | 20               | BK, WE, RD        | 1 x 10    | 25               | 0.630x0.220 | 122           | 168            | PK           |
| 639492◇      | 8             | 3            | 7              | 0.141                   | 30               | BK, WE, RD        | 1 x 10    | 30               | 0.585       | 185           | 260            | BK           |
| 551888◇      | 8             | 2            | 7              | 0.141                   | 30               | BK, RD            | 1 x 10    | 30               | 0.628x0.278 | 132           | 190            | BK           |
| 639500◇      | 6             | 3            | 7              | 0.177                   | 30               | BK, WE, RD        | 1 x 10    | 30               | 0.672       | 276           | 365            | BK           |
| 288944◇      | 6             | 2            | 7              | 0.177                   | 30               | BK, WE            | 1 x 10    | 30               | 0.700x0.314 | 192           | 260            | BK           |
| 639682◇      | 4             | 3            | 7              | 0.225                   | 40               | BK, WE, RD        | 1 x 8     | 30               | 0.843       | 440           | 575            | BK           |
| 639708◇      | 2             | 3            | 7              | 0.282                   | 40               | BK, WE, RD        | 1 x 8     | 30               | 0.887       | 671           | 830            | BK           |

All dimensions are nominal and subject to normal manufacturing tolerances

◇ Cable marked with this symbol is a standard stock item

\* 2x2 construction





**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 | Inductive Reactance @ 60Hz | Allowable Ampacity At 60°C | Allowable Ampacity At 90°C |
|--------------|---------------|--------------|--------------------|------------------|----------------------|----------------------|----------------------------|----------------------------|----------------------------|
|              | AWG/<br>Kcmil |              | inch               | lb               | Ω/1000ft             | Ω/1000ft             | Ω/1000ft                   | Amp                        | Amp                        |
| 550482◇*     | 14            | 4            | 1.4                | 105              | 2.631                | 3.170                | 0.058                      | 12                         | 20                         |
| 288274◇      | 14            | 2            | 0.8                | 65               | 2.631                | 3.170                | 0.058                      | 15                         | 25                         |
| 639469◇      | 14            | 3            | 0.9                | 98               | 2.631                | 3.170                | 0.058                      | 15                         | 25                         |
| 550542◇      | 12            | 4            | 1.6                | 167              | 1.662                | 2.002                | 0.054                      | 16                         | 24                         |
| 288282◇      | 12            | 2            | 1.0                | 104              | 1.662                | 2.002                | 0.054                      | 20                         | 30                         |
| 639478◇      | 12            | 3            | 1.1                | 156              | 1.662                | 2.002                | 0.054                      | 20                         | 30                         |
| 555832◇      | 10            | 4            | 1.9                | 265              | 1.040                | 1.253                | 0.050                      | 24                         | 32                         |
| 288290◇      | 10            | 2            | 1.2                | 166              | 1.040                | 1.253                | 0.050                      | 30                         | 40                         |
| 639485◇      | 10            | 3            | 1.3                | 249              | 1.040                | 1.253                | 0.050                      | 30                         | 40                         |
| 639492◇      | 8             | 3            | 2.3                | 396              | 0.653                | 0.786                | 0.052                      | 40                         | 55                         |
| 551888◇      | 8             | 2            | 1.7                | 264              | 0.653                | 0.786                | 0.052                      | 40                         | 55                         |
| 639500◇      | 6             | 3            | 2.7                | 629              | 0.411                | 0.495                | 0.051                      | 55                         | 75                         |
| 288944◇      | 6             | 2            | 2.0                | 419              | 0.411                | 0.495                | 0.051                      | 55                         | 75                         |
| 639682◇      | 4             | 3            | 3.4                | 1001             | 0.258                | 0.310                | 0.048                      | 70                         | 95                         |
| 639708◇      | 2             | 3            | 3.5                | 1592             | 0.162                | 0.195                | 0.045                      | 95                         | 130                        |

\* Ampacities based upon 2023 NEC Table 310.16 and do not take into account the overcurrent protection limitations in NEC 240.4(D) of 15 Amps for 14 AWG CU, 20 Amps for 12 AWG CU, and 30 Amps for 10 AWG CU (independent of the conductor temperature rating and stranding if size is present in table). Also, see NEC sections 310.15 and 110.14(C) for additional requirements.

\* Inductive impedance is based on non-ferrous conduit with one diameter spacing center-to-center.



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