



CU 2000V NLEPR/CPE RW90 Traction Cable

2000 Volt Single Conductor Copper, No Lead Ethylene Propylene Rubber(NL-EPR) insulation RW90 Chlorinated Polyethylene (CPE) Jacket



Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

1. **Conductor:** Compressed stranded bare or tinned copper per ASTM B3 or B33 and B8. Center strand embossed with "Southwire, Year, Plant" when required
2. **Binder Tape:** Mylar Tape
3. **Insulation:** No Lead Ethylene Propylene Rubber (EPR) Type RW90
4. **Overall Jacket:** Thermoset Chlorinated Polyethylene (CPE) Jacket

APPLICATIONS AND FEATURES:

Southwire 2000V EPR/CPE Cable is suited for use in mass transit and general industry applications where flexibility, fire resistance, and low smoke generation are a concern. May be installed in wet or dry locations in cable trays or raceways. These cables are capable of operating continuously at a conductor temperature not in excess of 90°C for normal operation, 130°C for emergency overload conditions, and 250°C for short circuit conditions. Resistance to moisture and most oils, acids, and alkalis with an overall durable thermoset CPE jacket. Alternate constructions available upon request.

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
- CSA C22.2 No. 38 Thermoset-insulated wires and cables
- CSA C22.2 No.230 Tray Cables - Rated TC-ER
- CSA SUN RES - for Sunlight Resistant rating
- ICEA S-95-658 (NEMA WC70) Power Cables Rated 2000 Volts or Less for the Distribution of Electrical Energy
- Oil Res I & Sun Res - AWG 8 & Larger
- IEEE 1202 FT4 Flame Test (70,000) BTU/hr Vertical Tray Test (1/0 and Larger)

SAMPLE PRINT LEGEND:

{SQMTR} SOUTHWIRE® LL90458 {CSA} XXX KCMIL CU TYPE RW90 -40°C XX MILS EPR XX MILS CPE FT4 PR I PR II SUN RES OIL RES TC-ER 2000V YEAR OF MANUFACTURE





Table 1 – Weights and Measurements

| Stock Number | Cond. Size | Strand | Insul. Thickness | Overall Jacket Thickness | Approx. OD | Approx. Weight | Min Bending Radius | Max Pull Tension | DC Resistance @ 25°C | AC Resistance @ 75°C | Inductive Reactance @ 60Hz | Allowable Ampacity In Raceway 90°C† |
|--------------|---------------|--------|------------------|--------------------------|------------|----------------|--------------------|------------------|----------------------|----------------------|----------------------------|-------------------------------------|
| | AWG/ Kcmil | No. | mil | mil | inch | lb/1000ft | inch | lb | Ω/1000ft | Ω/1000ft | Ω/1000ft | Amp |
| TBA | 1/0 | 19 | 65 | 45 | 0.541 | 391 | 2.1 | 844 | 0.102 | 0.122 | 0.044 | 170 |
| TBA | 2/0 | 19 | 65 | 45 | 0.585 | 482 | 2.3 | 1064 | 0.081 | 0.097 | 0.043 | 195 |
| TBA | 3/0 | 19 | 65 | 45 | 0.636 | 598 | 2.5 | 1342 | 0.064 | 0.078 | 0.042 | 225 |
| TBA | 4/0 | 19 | 65 | 45 | 0.692 | 741 | 2.7 | 1692 | 0.051 | 0.062 | 0.041 | 260 |
| TBA | 250 | 37 | 75 | 65 | 0.768 | 884 | 3.1 | 2000 | 0.043 | 0.053 | 0.041 | 290 |
| TBA | 350 | 37 | 75 | 65 | 0.871 | 1212 | 3.4 | 2800 | 0.031 | 0.039 | 0.040 | 350 |
| TBA | 500 | 37 | 75 | 65 | 0.999 | 1697 | 3.9 | 4000 | 0.022 | 0.029 | 0.039 | 430 |
| 668910* | 500 | 91 | 75 | 65 | 1.093 | 1802 | 5.4 | 4000 | 0.022 | 0.029 | 0.039 | 430 |
| 669881 | 750 | 61 | 90 | 65 | 1.302 | 2658 | 6.5 | 6000 | 0.014 | 0.022 | 0.038 | 535 |
| TBA | 1000 | 61 | 90 | 65 | 1.357 | 3330 | 6.7 | 8000 | 0.011 | 0.018 | 0.037 | 615 |
| TBA | 1500 | 91 | 115 | 95 | 1.650 | 4977 | 8.2 | 12000 | 0.007 | 0.016 | 0.035 | 705 |
| TBA | 2000 | 127 | 115 | 95 | 1.863 | 6569 | 9.3 | 16000 | 0.005 | 0.016 | 0.034 | 750 |

All dimensions are nominal and subject to normal manufacturing tolerances

◇ Cable marked with this symbol is a standard stock item

†Thicknesses reported as minimum average

* Bare copper

Table 2 – Weights and Measurements (Metric)

| Stock Number | Cond. Size | Strand | Insul. Thickness | Jacket Thickness ¹ | Approx. OD | Approx. Weight | Min Bending Radius | Max Pull Tension | DC Resistance @ 25°C | AC Resistance @ 75°C | Inductive Reactance @ 60Hz | Allowable Ampacity In Raceway 90°C |
|--------------|---------------|--------|------------------|-------------------------------|------------|----------------|--------------------|------------------|----------------------|----------------------|----------------------------|------------------------------------|
| | AWG/ Kcmil | No. | mm | mm | mm | kg/km | mm | newton | Ω/km | Ω/km | Ω/km | Amp |
| TBA | 1/0 | 19 | 1.65 | 1.14 | 13.74 | 582 | 53.34 | 3756 | 0.33 | 0.40 | 0.1444 | 170 |
| TBA | 2/0 | 19 | 1.65 | 1.14 | 14.86 | 717 | 58.42 | 4735 | 0.27 | 0.32 | 0.1411 | 195 |
| TBA | 3/0 | 19 | 1.65 | 1.14 | 16.15 | 890 | 63.50 | 5972 | 0.21 | 0.26 | 0.1378 | 225 |
| TBA | 4/0 | 19 | 1.65 | 1.14 | 17.58 | 1103 | 68.58 | 7529 | 0.17 | 0.20 | 0.1345 | 260 |
| TBA | 250 | 37 | 1.91 | 1.65 | 19.51 | 1316 | 78.74 | 8900 | 0.14 | 0.17 | 0.1345 | 290 |
| TBA | 350 | 37 | 1.91 | 1.65 | 22.12 | 1804 | 86.36 | 12460 | 0.10 | 0.13 | 0.1312 | 350 |
| TBA | 500 | 37 | 1.91 | 1.65 | 25.37 | 2525 | 99.06 | 17800 | 0.07 | 0.10 | 0.1280 | 430 |
| 668910 | 500 | 91 | 1.91 | 1.65 | 27.76 | 2682 | 137.16 | 17800 | 0.07 | 0.10 | 0.1280 | 430 |
| 669881 | 750 | 61 | 2.29 | 1.65 | 33.07 | 3956 | 165.10 | 26700 | 0.05 | 0.07 | 0.1247 | 535 |
| TBA | 1000 | 61 | 2.29 | 1.65 | 34.47 | 4956 | 170.18 | 35600 | 0.04 | 0.06 | 0.1214 | 615 |
| TBA | 1500 | 91 | 2.92 | 2.41 | 41.91 | 7407 | 208.28 | 53400 | 0.02 | 0.05 | 0.1148 | 705 |
| TBA | 2000 | 127 | 2.92 | 2.41 | 47.32 | 9776 | 236.22 | 71200 | 0.02 | 0.05 | 0.1115 | 750 |

All dimensions are nominal and subject to normal manufacturing tolerances

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* Bare copper

