



DURATRAY™ CU 600V XLPE Insulation. RHH/RHW-2/RW90 UL & CSA

Single Copper Conductors, XLPE Insulation, Sunlight Resistant, 600V, 90°C MAX, -40°C MIN, Gasoline & Oil Resistant



Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

1. **Conductor:** Class B compressed stranded bare copper per ASTM B3 and ASTM B8
2. **Insulation:** Cross Linked Polyethylene (XLPE)

APPLICATIONS AND FEATURES:

Suitable for installation in Cable Trays, Underground Duct Banks - As per CE Code limitations (see Rule 12-2202) for grounding and bonding applications. Standard colour is black. Some sizes may be available in white, red, blue, yellow, brown, orange or grey. Green Duraground™ also available.

SPECIFICATIONS:

- ASTM B3 Soft or Annealed Copper Wire
- ASTM B8 Concentric-Lay-Stranded Copper Conductors
- CSA C22.2 No. 38 Thermoset-insulated wires and cables
- CSA C22.2 No.230 Tray Cables - Rated TC-ER (1/0 AWG and Larger)
- CSA C22.2 No. 2556 & No. 0.3 Wire and Cable Test Methods
- CSA LTGG [-40°C] - as per C68.10 - for Cold Bend and Impact rating
- CSA SUN RES - for Sunlight Resistant rating
- CSA ST1 Smoke Test - marked FT4-ST1 (1/0 and Larger)
- Oil Res I & Sun Res - AWG 8 & Larger

SAMPLE PRINT LEGEND:

SOUTHWIRE E30117 {UL} XX AWG CU RHH-RHW-2 600V FOR CT USE FT4 SR PR I OR PR II 90°C WET OR DRY -40°C ---
{CSA} LL90458 XX AWG (XX.Xmm²) RW90 600V FT4 SR -40°C XLPE --- RoHS {MM/DD/YYYY}





Table 1 – Weights and Measurements

| Stock Number | Cond. Size | Strand | Insul. 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 | inch | lb/1000ft | inch | lb | Ω/1000ft | Ω/1000ft | Ω/1000ft | Amp |
| TBA | 8 | 7 | 60 | 0.261 | 69 | 1.0 | 132 | 0.653 | 0.786 | 0.052 | 55 |
| TBA | 6 | 7 | 60 | 0.297 | 104 | 1.1 | 209 | 0.411 | 0.495 | 0.051 | 75 |
| TBA | 4 | 7 | 60 | 0.345 | 155 | 1.3 | 333 | 0.258 | 0.310 | 0.048 | 95 |
| TBA | 2 | 7 | 60 | 0.402 | 237 | 1.6 | 530 | 0.162 | 0.195 | 0.045 | 130 |
| 649139 | 1/0 | 19 | 80 | 0.528 | 395 | 2.1 | 844 | 0.102 | 0.122 | 0.044 | 170 |
| 649088◇ | 2/0 | 19 | 80 | 0.572 | 487 | 2.2 | 1064 | 0.081 | 0.097 | 0.043 | 195 |
| 649148 | 3/0 | 19 | 80 | 0.622 | 602 | 2.4 | 1342 | 0.064 | 0.078 | 0.042 | 225 |
| 649097◇ | 4/0 | 19 | 80 | 0.666 | 745 | 2.6 | 1692 | 0.051 | 0.062 | 0.041 | 260 |
| TBA | 250 | 37 | 95 | 0.748 | 872 | 2.9 | 2000 | 0.043 | 0.053 | 0.041 | 290 |
| 649107◇ | 350 | 37 | 95 | 0.841 | 1218 | 3.3 | 2800 | 0.031 | 0.039 | 0.040 | 350 |
| 649045◇ | 500 | 37 | 95 | 0.966 | 1705 | 3.8 | 4000 | 0.022 | 0.029 | 0.039 | 430 |
| 649048◇ | 750 | 61 | 110 | 1.200 | 2549 | 6.0 | 6000 | 0.014 | 0.022 | 0.038 | 535 |
| 649130◇ | 1000 | 61 | 110 | 1.349 | 3354 | 6.7 | 8000 | 0.011 | 0.018 | 0.037 | 615 |

All dimensions are nominal and subject to normal manufacturing tolerances

◇ Cable marked with this symbol is a standard stock item

†Ampacities derived from the 2015 Canadian Electrical Code - Table 1 - For single conductor in free air and based on an ambient temperature of 30°C. - Table 2 - for Cable in Conduit. Not more than 3 aluminum conductors in a conduit and based on an ambient temperature of 30°C.

Table 2 – Weights and Measurements (Metric)

| Stock Number | Cond. Size | Strand | Insul. 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. | mm | mm | kg/km | mm | newton | Ω/km | Ω/km | Ω/km | Amp |
| TBA | 8 | 7 | 1.52 | 6.63 | 103 | 25.40 | 587 | 2.14 | 2.58 | 0.1706 | 55 |
| TBA | 6 | 7 | 1.52 | 7.54 | 155 | 27.94 | 930 | 1.35 | 1.62 | 0.1673 | 75 |
| TBA | 4 | 7 | 1.52 | 8.76 | 231 | 33.02 | 1482 | 0.85 | 1.02 | 0.1575 | 95 |
| TBA | 2 | 7 | 1.52 | 10.21 | 353 | 40.64 | 2359 | 0.53 | 0.64 | 0.1476 | 130 |
| 649139 | 1/0 | 19 | 2.03 | 13.41 | 588 | 53.34 | 3756 | 0.33 | 0.40 | 0.1444 | 170 |
| 649088◇ | 2/0 | 19 | 2.03 | 14.53 | 725 | 55.88 | 4735 | 0.27 | 0.32 | 0.1411 | 195 |
| 649148 | 3/0 | 19 | 2.03 | 15.80 | 896 | 60.96 | 5972 | 0.21 | 0.26 | 0.1378 | 225 |
| 649097◇ | 4/0 | 19 | 2.03 | 16.92 | 1109 | 66.04 | 7529 | 0.17 | 0.20 | 0.1345 | 260 |
| TBA | 250 | 37 | 2.41 | 19.00 | 1298 | 73.66 | 8900 | 0.14 | 0.17 | 0.1345 | 290 |
| 649107◇ | 350 | 37 | 2.41 | 21.36 | 1813 | 83.82 | 12460 | 0.10 | 0.13 | 0.1312 | 350 |
| 649045◇ | 500 | 37 | 2.41 | 24.54 | 2537 | 96.52 | 17800 | 0.07 | 0.10 | 0.1280 | 430 |
| 649048◇ | 750 | 61 | 2.79 | 30.48 | 3793 | 152.40 | 26700 | 0.05 | 0.07 | 0.1247 | 535 |
| 649130◇ | 1000 | 61 | 2.79 | 34.26 | 4991 | 170.18 | 35600 | 0.04 | 0.06 | 0.1214 | 615 |

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Stock Codes and Colors

| Size | BLACK | WHITE | RED | BLUE | YELLOW | BROWN | ORANGE | GREY |
|-----------|--------|--------|--------|--------|--------|-------|--------|------|
| 1/0 | 649139 | 649132 | 649134 | 649136 | TBA | TBA | TBA | TBA |
| 2/0 | 649088 | 649081 | 649083 | 649085 | TBA | TBA | TBA | TBA |
| 3/0 | 649148 | 649141 | 649143 | 649146 | TBA | TBA | TBA | TBA |
| 4/0 | 649097 | 649090 | 649092 | 649094 | TBA | TBA | TBA | TBA |
| 250Kcmil | TBA | TBA | TBA | TBA | TBA | TBA | TBA | TBA |
| 350Kcmil | 649107 | 649109 | 649102 | 649105 | TBA | TBA | TBA | TBA |
| 500Kcmil | 649045 | 649110 | 649113 | 649115 | TBA | TBA | TBA | TBA |
| 750Kcmil | 649048 | 649117 | 649119 | 649121 | TBA | TBA | TBA | TBA |
| 1000Kcmil | 649130 | 649123 | 649125 | 649127 | TBA | TBA | TBA | TBA |

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