

# OVERHEAD CATENARY WIRE

CuMg 0.2 (Alloy80)/CuMg 0.5 (Alloy 55) Contact CuMg0.2 and CuSn0.2/ Trolley Wire



Image not to scale. See Table 1 for dimensions.

## CONSTRUCTION:

This product offers: excellent corrosion resistance, wear characteristics; and high-tensile strength properties. Bronze trolley wire is available in a choice of two alloys to provide the best match of electrical and mechanical wear properties for each application - 55 percent and 80 percent conductivity IACS (CA165 and A162), and is offered in the ASTM configurations: round, grooved figure 8, or figure 9.

## APPLICATIONS AND FEATURES:

For use as overhead power source for subways, light and heavy transit systems, electrically powered mine train, buses, and industrial cranes. High-tensile strength properties allow for reduced clearance maintenance in tunnel applications. Southwire bronze trolley wire is ideal for high-speed rail transportation system.

- Exceptionally Low Thermal Loss
- Outstanding Increase in Conductivity
- Highest Half-Hard Value of any Materials in Present Day Use.
- Flexible to Wind and Vibration
- Durable and Reliable Support
- Allows for Increase in Max Line Speeds
- Mechanically Rugged
- High Tensile Strength and Breaking Load
- RoHS/Proposition 65 Compliant

## SPECIFICATIONS:

- ASTM B9 Bronze Trolley Wire
- EN 50149 Railway Applications. Fixed Installations. Electric Traction. Copper and Copper Alloy Grooved Contact Wires.

**Table 1 – Physical and Electrical Data**

| Cond. Shape | Cond. Metal | Cond. Size | Cond. Area | Cond. Number | Approx. OD | Approx. Weight | DC Resistance @ 20°C | Rated Strength |
|-------------|-------------|------------|------------|--------------|------------|----------------|----------------------|----------------|
|             |             | AWG/kcmil  | cmil       | No.          | inch       | lb/1000ft      | Ω/1000ft             | lb             |
| grooved     | alloy 55    | 350        | 351200     | 1            | 0.620      | 1063.0         | 0.05369              | 17240          |

All dimensions are nominal and subject to normal manufacturing tolerances

◊ Cable marked with this symbol is a standard stock item



**Notes**

1. These numbers represent the minimum percent IACS conductivity of the alloys. Other alloys are available subject to special inquiry.
2. Bronze trolley wire is normally manufactured from alloys 55 or 80
3. Figure 9 wire, dimensions given are nominal height of entire section and width of lower lobe. Size 6/0 AWG (336,200 Cmil) grooved wall will regularly be furnished as 350,000 Cmil size. are also available upon request. Size 6 AWG (336,200 Cmil) Grooved wall will be regularly furnished as 350,000 Cmil size
4. Tolerances: The above data are approximately and subject to normal manufacturing tolerances Weights, breaking strengths and resistance are base on nominal dimensions  
\*mm<sup>2</sup>

