Hard-Drawn Copper, Grooved Contact Wire

Contact / Trolley Wire for Mass Transit and Industrial Haulage



Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

This product offers the industry's most commonly used, best conductivity, wear characteristics, and tensile strength properties. Hard Drawn Copper contact/trolley wire is available in the ASTM configurations: grooved, figure 8, or figure 9.

APPLICATIONS AND FEATURES:

For use as overhead power source on streetcars, trolleys, electric trolley buses, light rail, commuter rail and heavy mass transit systems. Also used on electrically powered mine trains, and industrial cranes. Southwire's hard drawn copper trolley wire is ideal for line speeds of up to 100 mph (160 km/h).

- Mechanically Rugged
- Industry Standard Tensile Strength and Breaking Load
- Increase in Conductivity over CuMG, CuAG, and CuSN
- High Tensile Strength and Breaking Load
- Ships on N-42 wooden reels (S-77 steel reels available per SW reel policy)
- RoHS/Proposition 65 Compliant
- Available with top lobe identification marking per IEEE 1896-2016
- Stable and Reliable for Long Term use
- Buy America Compliant

SPECIFICATIONS:

- ASTM B47 Copper Trolley Wire
- ASTM B116 Figure-9 deep-section grooved and Figure-8 copper trolley wire for use in industrial haulage
- EN 50149 Railway Applications. Fixed Installations. Electric Traction. Copper and Copper Alloy Grooved Contact Wires.

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Table 1 – Physical and Electrical Data

Stock Number	Cond. Size	Cond. Cmil	Approx. OD	Approx. Weight	DC Resistance @ 25°C	Rated Strength
	AWG/kcmil	cmil	inch	lb/1000ft	Ω/1000ft	lb
669029	2/0	133,100	0.392	416.61	0.0774	5,438
TBA	3/0	167,800	0.430	506.44	0.0638	6392
592467	4/0	211,600	0.482	641.86	0.0504	7,759
597541	300	300,000	0.574	907.58	0.0371	10,409
647100†	300	300,000	0.606	902	0.0371	10,409
587578	350	351,200	0.620	1062.88	0.0304	11,804
669528	3/0 (Fig. 8)	167,800	0.540 x 0.400	507.9	0.0630	6392
664570	4/0 (Fig. 8)	211,600	0.600 x 0.450	641.9	0.0504	7,759
456318	335 (Fig. 9)	336,400	0.680 x 0.482	1020	0.033	11,426
668304	400 (Fig. 9)	400,000	0.745 x 0.552	1202	0.0270	12,975

All dimensions are nominal and subject to normal manufacturing tolerances
◊ Cable marked with this symbol is a standard stock item
† Flat bottom construction
Notes:
1. These numbers represent the minimum percent IACS conductivity of the alloys. Other alloys are available subject to special inquiry.
2. Figure 8 and 9 wire are also available upon request. Size 6 AWG (336,200 cmil) Grooved wall will be regularly furnished as 350,000 cmil size
3. Tolerances: The above data are approximately and subject to normal manufacturing tolerances Weights, breaking strengths and resistance are base on nominal dimensions
TBA stock codes are estimations only and actual product may vary. Please wait until a stock code is assigned to purchase connectors and/or fittings.

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