

CU HARD DRAWN OVERHEAD CATENARY SYSTEMS MESSENGER WIRE

Messenger Wire for Transit Systems



Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

This product can be made in variations of Hard Drawn or Medium-Hard Drawn Copper with concentric or unilay stranding options. Tinned coated copper and Proof Positive™ anti-theft conductors are also available upon request.

APPLICATIONS AND FEATURES:

For use in Trolley and High Speed Rail applications as supports for contact and dropper wires in overhead catenary systems. Southwire's messenger wire is designed for long service life with the ability to maintain rugged strength through sustained performance.

- Pure Copper
- Flexible to Wind and Vibration
- Durable and Reliable Support
- Mechanically Rugged
- High Tensile Strength and Breaking Load
- RoHS/Proposition 65 Compliant

SPECIFICATIONS:

- ASTM B1 Hard-Drawn Copper
- ASTM B8 Concentric-Lay-Stranded Copper Conductors
- ASTM B33 Standard Specification for Tin-Coated Soft or Annealed Copper Wire
- ASTM B787 19 Wire Combination Unilay-Stranded Copper Conductors



Table 1 – Physical and Electrical Data

Stock Number	Cond. Size	Strand Class	Strand Count	Cond. Cmil	Approx. OD	Approx. Weight	DC Resistance @ 25°C	Rated Strength
	AWG/kcmil		No. of Strands	cmil	inch	lb/1000ft	Ω/1000ft	lb
106583	8	B	7	16510	0.146	51	0.666	777
106674	6	B	7	26240	0.184	81	0.419	1228
106765	4	A B	7	41740	0.232	129	0.264	1938
106823	3	A B	7	52620	0.260	163	0.209	2433
106880	2	A B	7	66360	0.292	205	0.166	3050
106948	1	A	7	83690	0.328	258	0.132	3801
106971	1/0	A AA	7	105600	0.368	326	0.104	4752
TBA	1/0	B	19	105600	0.373	326	0.104	4752
107003	2/0	A AA	7	133100	0.414	411	0.083	5926
156281	2/0	B	19	133100	0.418	411	0.083	6690
107037	3/0	A AA	7	167800	0.464	518	0.066	7366
587955	4/0	A AA	7	211600	0.522	653	0.052	9154
136721	4/0	B	19	211600	0.528	653	0.052	9617
107094	250	A	19	250000	0.574	772	0.044	11360
TBA	250	B	37	250000	0.575	772	0.044	11600
107128	300	A	19	300000	0.628	926	0.037	13510
304568	300	B	37	300000	0.630	926	0.035	13510
107151	350	A	19	350000	0.679	1081	0.031	15590
TBA	400	B	37	400000	0.706	1235	0.026	18008
593421	500	A	19	500000	0.813	1544	0.022	22510
588744	500	B	37	500000	0.813	1544	0.022	22510
149575	500	C	61	500000	0.815	1544	0.022	22510
TBA	600	A AA	37	600000	0.891	1853	0.018	27020
588829	750	A B	61	750000	0.998	2316	0.015	34090
107300	1000	A B	61	1000000	1.152	3088	0.011	45030

All dimensions are nominal and subject to normal manufacturing tolerances

◊ Cable marked with this symbol is a standard stock item

Notes:

+Ampacity based on 75°C conductor temperature 25°C ambient temperature 2 ft./sec. wind in sun. Numbers shown above are for concentrically stranded constructions and may vary slightly for combination unilay stranded constructions. Dimensions and weights shown above are nominal and subject to industry tolerances.

