CU MEDIUM-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 PositiveTM 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 B2 Medium-Hard Drawn Copper Wire
- 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

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Table 1 – Physical and Electrical Data

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
8	B	7	16510	0.146	51	0.663	610
6	B	7	26240	0.184	81	0.417	959
4	A B	7	41740	0.232	129	0.262	1505
3	A B	7	52620	0.260	163	0.208	1885
2	A B	7	66360	0.292	205	0.165	2360
1	A	7	83690	0.328	258	0.131	2955
1/0	A AA	7	105600	0.368	326	0.104	3705
1/0	B	19	105600	0.373	326	0.104	3705
2/0	A AA	7	133100	0.414	411	0.082	4640
2/0	B	19	133100	0.418	411	0.082	4765
3/0	A AA	7	167800	0.464	518	0.065	5812
4/0	A AA	7	211600	0.522	653	0.052	7278
4/0	B	19	211600	0.528	653	0.052	7479
250	A	19	250000	0.574	772	0.044	8836
250	B	37	250000	0.575	772	0.044	8952
300	A	19	300000	0.628	926	0.037	10530
350	A	19	350000	0.679	1081	0.031	12200
500	A	19	500000	0.814	1544	0.022	17550
500	B	37	500000	0.814	1544	0.022	17550
600	A AA	37	600000	0.891	1853	0.018	21060
750	A B	61	750000	0.998	2316	0.015	26510
1000	A B	61	1000000	1.152	3088	0.011	35100

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.