

## Copper Stranded Wire Classification And Model

### 1. Classification

Copper stranded wire is divided into: hard copper stranded wire and soft copper stranded wire; raw materials used in high-purity oxygen-free copper rod, ensure stable performance of the copper wire, copper wire continuous excellent performance.

### 2. Application

#### 2.1 Hard copper stranded wire

- 2.1.1 Electrified railway catenary carrier cable.
- 2.1.2 Cable conductor copper stranded wire
- 2.1.3 Lightning protection and grounding hard copper stranded wire
- 2.1.4 Medium wave towers with copper stranded wire
- 2.1.5 Substation transmission bus
- 2.1.6 Signal transmitting antenna



#### 2.2 Soft copper stranded wire

- 2.2.1 Electrical equipment soft connection wire
- 2.2.2 Electronic appliances with soft connection wire
- 2.2.3 Element wiring with soft connection wire
- 2.2.4 Railway catenary engineering
- 2.2.5 Electrified railway catenary
- 2.2.6 Submarine cable
- 2.2.7 Automotive wire conductor



### 3. Product description

3.1 Hard copper stranded wire--Raw materials using high-quality pure cathode copper; single wire use high-speed craft even pull back technology; hard copper stranded wire process special stranding, not

oddlot; performance in line with international and EU standards.

Copper rod materials used are copper casting and rolling production line, product quality assurance. Bare copper single wire used is currently the most advanced high-speed copper wire drawing process even pull annealing technology, stable and reliable quality, and hard copper stranded wire performance met or exceeded the national standards and EU electrical standards, use of the process is secure.

Commonly used hard copper stranded wire structure 7 shares, 12 shares, 19 shares, 37 shares, 61 shares, etc. The maximum cross-sectional area up to 400 mm<sup>2</sup>. Hard copper stranded wire/ grounding copper stranded wire/bare copper wire can be applied to some of the more extreme environments, such as humidity, salinity, acid soil and chemical corrosion substances, commonly used in electrified railway catenary, lightning protection and grounding, grounding power stations, signal tower etc.. It can be used as a ground material, deflectors, and other potential connection, electrified railway catenary feeder. Lightning protection and grounding copper wire is widely used in high power transmission station lightning protection and grounding, power plants, telecommunications, railway, municipal infrastructure, petroleum, petrochemical and other requirements engineering field.

<b>Nominal cross section</b>	<b>Structure size Root/ diameter</b>	<b>Calculated outer diameter</b>	<b>Calculated weight</b>	<b>Nominal cross section</b>	<b>Structure size Root/ diameter</b>	<b>Calculated outer diameter</b>	<b>Calculated weight</b>
mm <sup>2</sup>	mm	mm	Kg/Km	mm <sup>2</sup>	mm	mm	Kg/Km
16	7/1.70	5	143	120	19/2.80	14	1060
25	7/2.12	6.3	220	150	19/3.15	15.8	1324
35	7/2.50	7.5	310	185	37/2.50	17.4	1630
50	7/3.00	8.9	440	240	37/2.85	19.9	2106
70	19/2.12	10.7	613	300	37/3.15	21.7	2642
95	19/2.50	12.5	838	400	61/2.85	25.6	3522

3.2 Soft copper stranded wire--use high-quality oxygen-free copper rod, copper content of 99.99%; small resistivity, positive body good, uniform current distribution; soft copper stranded wire resistance to bending is good, continue to share.

Using high-quality raw materials of high purity electrolytic oxygen-free copper rod, in the process after annealing, soft resistance, bending resistance, continue to share, no shortage of stocks.

<b>Nominal cross section(mm<sup>2</sup>)</b>	<b>Structure shares*root/single wire diameter(mm)</b>	<b>Calculated outer diameter(mm)</b>	<b>Calculated weight(Kg/Km)</b>
2.5	7*7/0.26	2.34	24.06
4	7*7/0.32	2.88	36.44
6	7*7/0.39	3.51	54.08
10	12*7/0.39	4.86	92.71
16	12*7/0.49	6.11	146.5
25	19*7/0.49	7.32	231.9
35	19*7/0.58	8.70	324.9
50	19*7/0.68	12.20	446.9
70	27*7/0.68	12.55	634.6
95	37*7/0.68	14.28	869.7
120	27*12/0.68	17.38	1088
150	14*19/0.85	18.76	1396
185	27*12/0.85	21.73	1700
240	37*12/0.85	24.72	2330
300	27*19/0.85	26.15	2691
400	37*19/0.85	29.75	3688
500	37*19/0.95	33.25	4607



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**LINT TOP CABLE TECHNOLOGY CO., LTD.**

650	61*19/0.85	38.00	6000
840	61*19/0.95	45.00	7800
840	56*19/1.0	45.00	7800
1000	61*19/1.05	48.00	9200
1200	61*19/1.15	50.00	11000