

### CT series copper trolley wire

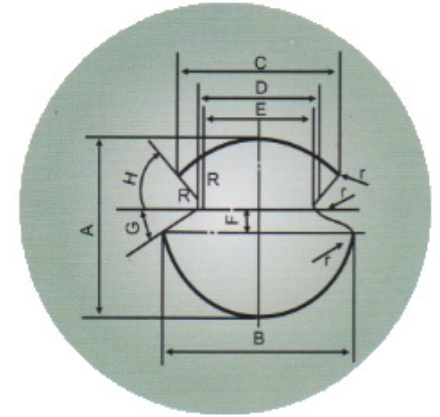
Use oxygen-free copper production, High conductivity, high strength.

Each indicator can reach or exceed to the world's advance level of similar products.

Railway Standard: TB/T 2809-2005

**Table 1: technology data**

Type	Min Integrated pull-off force (KN)	Min Binding force(N)	Reverse laps till it is broken $\geq$	Repeating bending till it is broken		Max DC resistance 20°C $\Omega$ /Km $\leq$
				Bending radius(mm)	times $\geq$	
CT85	32.25	3.0	5	30	6	0.01777
CT110	39.96	3.0	5	30	6	
CT120	43.56	3.0	5	30	6	
CT150	54.36	3.0	5	30	6	



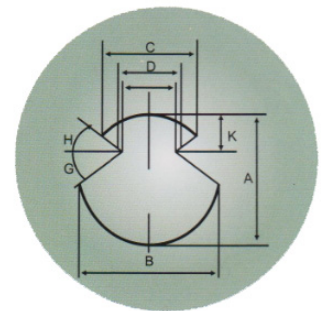
**Table 2: dimension & structure**

GB/T 12971.1-2008

type	Cross section (mm <sup>2</sup> ) $\pm 3\%$	Overall dimension (mm)							angle		Weight (Kg/km)
		A $\pm 1\%$	B $\pm 2\%$	C $\pm 2\%$	D +4% -2%	E	K	R	G°	H°	
CT85	85	10.80	10.76	9.40	7.24	6.80	4.60	0.40	27	51	769
CT110	111	12.34	12.34	9.73	7.24	6.80	4.47	0.40	27	51	992
CT120	121	12.90	12.90	9.76	7.24	6.80	4.35	0.40	27	51	1082
CT150	151	14.40	14.40	9.71	7.24	6.80	4.00	0.40	27	51	1350

**Table 3: grooved copper trolley wire** Technology data & Dimension

Type	Min Integrated pull-off force (N)	Min Binding force(N)	Reverse laps till it is broken $\geq$	Repeating bending till it is broken		Max DC resistance 20°C $\Omega$ /Km $\leq$
				Bending radius(mm)	times $\geq$	
CT-65-1	24200	3	5	30	4	0.01768
CT-85-1	29750	3	5	30	4	
CT-85(T)	32250	3	5	30	4	
CT-100-1	34610	3	5	30	4	
CT-110-1	39960	3	5	30	4	
CT-120-1	43560	3	5	30	4	
CT-150-1	54360	3	5	30	4	

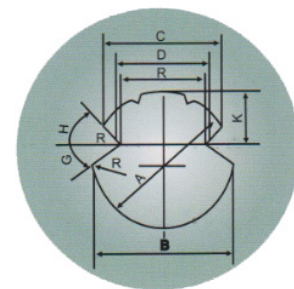


type	Cross section (mm <sup>2</sup> ) $\pm 3\%$	Overall dimension (mm)							angle		Weight (Kg/km)
		A $\pm 1\%$	B $\pm 2\%$	C $\pm 2\%$	D +4%-2%	E	K	R	G°	H°	
CT-65-1	65	9.30	10.19	8.05	5.70	5.32	2.15	0.60	35°	50°	582
CT-85-1	85	10.80	11.76	8.05	5.70	5.32	2.90	0.60	35°	50°	763
CT-85(T)	86	10.80	10.76	9.40	7.24	6.80	4.60	0.40	27°	51°	768
CT-100-1	100	11.80	12.81	8.05	5.70	5.32	3.40	0.60	35°	50°	893
CT-110-1	111	12.34	12.34	9.73	7.24	6.80	4.67	0.40	27°	51°	990
CT-120-1	121	12.90	12.90	9.76	7.24	6.80	4.35	0.40	27°	51°	1080
CT-150-1	151	14.40	14.40	9.71	7.24	6.80	4.00	0.40	27°	51°	1347

### CTA/CTAH series copper-silver alloy (Cu-Ag) trolley wire

Railway standard: TB/T 2809-2005

Type	Min Integrated pull-off force (KN)		Min Binding force(N)	Reverse laps till it is broken $\geq$	Repeating bending till it is broken		Max DC resistance 20°C $\Omega$ /Km $\leq$
					Bending radius(mm)	times $\geq$	
CTAH85	32.25	29.02		5	30	6	0.01777
CTAH110	39.96	35.96		5	30	6	
CTAH120	43.56	39.20		5	30	6	
CTAH150	54.36	48.92		5	30	6	
CTA85	31.39	28.25		5	30	6	
CTA110	38.85	34.96		5	30	6	
CTA120	42.35	38.12		5	30	6	
CTA150	52.85	47.56		5	30	6	

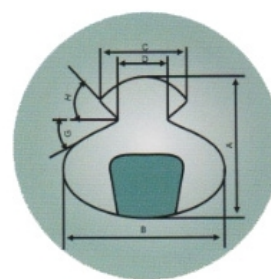
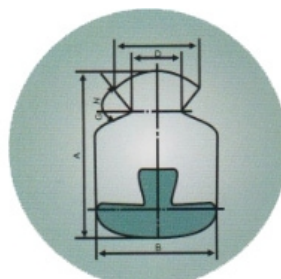
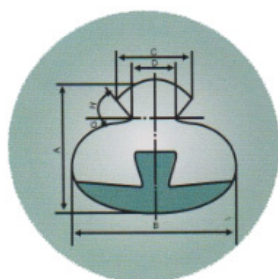


### Exposed steel Aluminum trolley wire

This trolley wire is made of aluminum and steel. It has a high tensile strength and it is wearable, corrosion resistance. It can be applied in coal and metallurgy.

Type	Min Integrated pull-off force (N)	Min Binding force(N)	Max DC resistance 20°C $\Omega$ /Km	180° turn around
CGLW215	49030	2450	0.184	Non-cracking
CGLW173	34320	1960	0.230	Non-cracking
CGLW100	27400	1820	0.273	-

type	Nominal cross	Equivalent cross section copper DC resistance	Cross section(mm <sup>2</sup> )		Dimensions(mm)				G	H	Weight Kg/Km
			steel	aluminum	A	B	C	D	$\pm 2^\circ$		
CGLW215	215	100	67	148	16.50 +0.66 -0	19.60 +0.78 -0	8.40 +0.40 -0.20	5.80 +0.40 -0.20	27°	51°	965
CGLW173	173	80	54	119	16.70 +0.66 -0	13.52 +0.52 -0	8.05 +0.20 -0.40	5.70 +0.40 -0.40	35°	50°	785
CGLW100	100	65	40	60	11.42 +0.66 -0.1	13.58 +0.68 -0.1	8.05 +0.20 -0.40	5.70 +0.40 -0.40	35°	50°	430



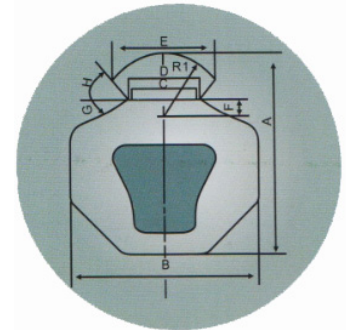
## Aluminum Clad steel trolley wire

This trolley wire is made of aluminum and trapezoidal steel. It has a high tensile strength and it is wearable, corrosion resistance.

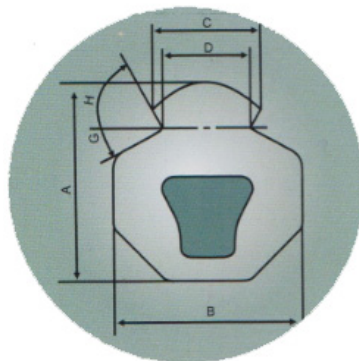
**Railway standard: TB/T 2277-91**

Type	Nominal cross	Cross section(mm <sup>2</sup> )		Dimensions(mm)									Weight Kg/Km
		steel	aluminum	A	B	C	D	E	K	R	G	H	
GLCN250	250	62	188	18.50	18.00	6.85	7.27	9.75	1.7	6.17	27±2°	51±2°	994
				+0.65	+0.80		-0.30	-0.40					
GLCN195	195	55	140	16.20	16.00	6.85	7.27	9.75	1.7	6.17	27±2°	51±2°	807
				+0.65	+0.55		-0.30	-0.30					

Type	Min Integrated pull-off force (N)	Min Binding force(N)	Max DC resistance 20°C Ω /Km
GLCN250	54000	4900	0.149
GLCN195	39220	3900	0.198



**GB/T 12971.2-2008**

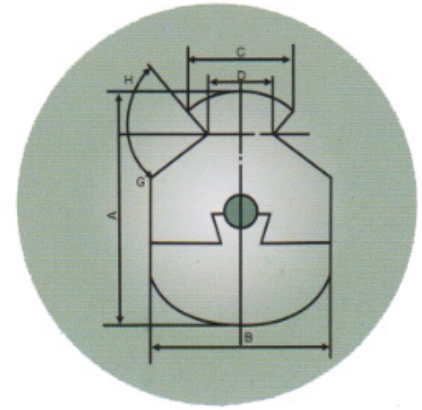


Type	Nominal cross	Equivalent cross section copper DC resistance	Cross section(mm <sup>2</sup> )		Dimensions(mm)				G	H	Weight Kg/Km
			steel	aluminum	A	B	C	D	±2°		
CGLN	250	120	62	188	18.50	18.00	9.55	7.30	27°	51°	994
					+0.65	+0.65	+0.40	+0.40			
CGLN	195	85	55	140	16.20	16.00	9.55	7.30	27°	51°	807
					+0.55	+0.55	+0.40	+0.40			
CGLN	195	85	55	140	-0.30	-0.30	-0.20	-0.20	27°	51°	807
					-0.30	-0.30	-0.20	-0.20			

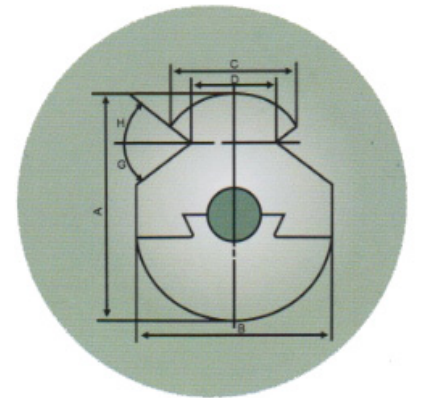
### Steel core aluminum alloy trolley wire

This trolley wire is made of aluminum alloy, aluminum and steel core. It has a long life.

Type	Min Integrated pull-off force (N)	Min Binding force(N)	Max DC resistance 20°C Ω /Km
CGLHD195	29400	1960	0.20
CGLHD260	39200	2960	0.12



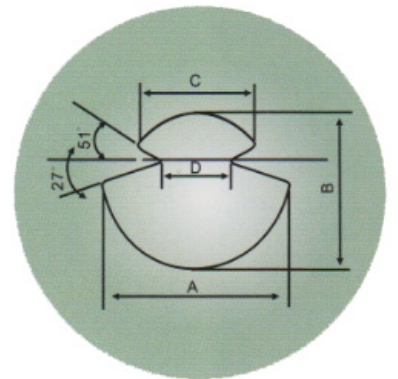
Type	Equivalent cross section copper DC resistance	Dimensions(mm)				G	H	Weight Kg/Km
		A	B	C	D	±2°		
CGLH D195	120	18.0 ±0.2	13.5 +0.35 -0.2	8.0 ±0.2	6.1 ±0.2	35°	50°	538
CGLH D260	85	18.6 ±0.2	18.4 ±0.2	9.0 ±0.2	7.3 ±0.2	27°	51°	753



### Aluminum Alloy trolley wire

We have three types of aluminum alloy trolley wire: 130, 170 and 200mm<sup>2</sup>. They have the same conduct electricity power as copper trolley wire 65, 85 and 100mm<sup>2</sup>. They can be used in mining and city tram lines.

Cross section(mm <sup>2</sup> )	A(mm)	B(mm)	C(mm)	D(mm)
130	13.48	13.48	9.55	7.27
170	15.40	15.40	9.55	7.27
200	16.64	16.64	9.55	7.27



type	pull-off force (N)	Max DC resistance 20°C Ω /Km	Nominal current (A)	Weight Kg/Km
CHL130	49030	0.184	325	350
CHL170	34320	0.230	425	460
CHL200	27400	0.273	500	540