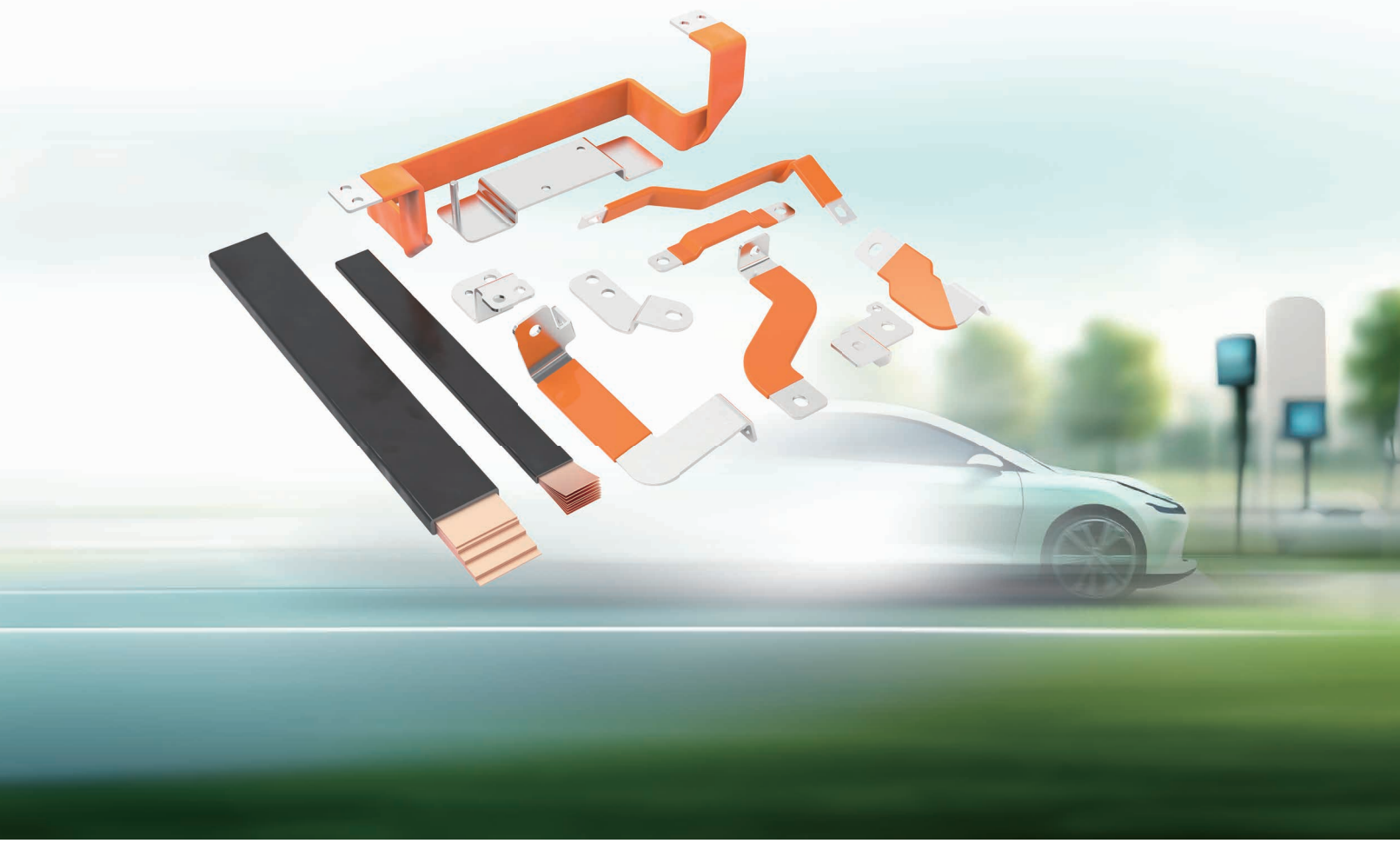
GRL ELECTRIC Flexible Conductive Connection

Product Catalogue



G25006-C-C28

www.grlgroup.com

About GRL

Zhejiang GRL Electric Co., Ltd. was founded in 2003. It is a professional company integrating R&D, production and sales, mainly focusing on fuses, enclosed busbar systems and disconnectors. Its main products include five categories: high and low voltage fuses, disconnectors, busbar systems, flexible conductive connections and surge protectors. The products are widely applied in industries such as energy storage, charging piles, power grids, photovoltaic power generation, wind power generation, automotive manufacturing, mechanical equipment, ship power distribution, and construction buildings. At present, GRL has provided thousands of electrical components and electrical solutions for new energy, new industrial control, new power and new infrastructure, becoming a leading brand in domestic electrical connection and protection products in China.

The company has a modern factory covering an area of over 43,000 square meters, more than 150 sets of machining equipment, over 30 specialized assembly lines, and more than 80 sets of testing equipment such as fuse comprehensive characteristic test benches, switch temperature rise test benches, mechanical life test benches, and salt spray test machines. It adopts scientific production processes and a strict quality management system. The product has reached the international industry level in terms of performance. Based on the comprehensive implementation of process-oriented and standardized management, the company vigorously promotes the construction of a lean digitalization and all-staff performance management system.

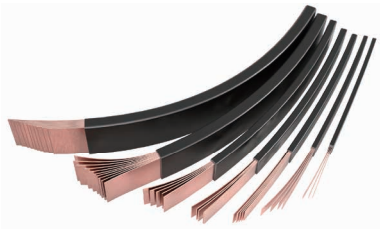
GRL is committed to contributing to the improvement of safety, reliability and efficiency in the electrical industry, adhering to the concept of green development and shouldering social responsibilities. Jinlaile focuses on niche industries, constantly optimizes, identifies its own shortcomings, makes improvements, and strives unremittingly to become a respected and globally renowned electrical brand!

ISO9001 IATF 16949 ISO14001 ISO45001

Content

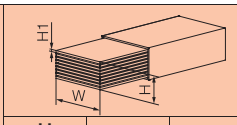
New energy
ultra-flexible
insulated busbar

Ultra-flexible insulated busbar

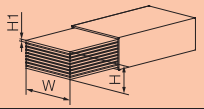


Structure and application

High-current ultra-flexible busbar (referred to as: flexible busbar) is a flexible power transmission product developed by integrating cable manufacturing processes and innovative material technologies with high-purity copper bars as the core conductor. It is an innovative solution in the field of high-current power transmission and distribution. Its core structure includes copper busbar conductors, winding layers, insulation layers, protective metal armor layers and outer sheath layers. Materials at each level are selected specifically based on actual working conditions to meet diverse application requirements. This product has a rated current covering a wide range of 125-1600A and mainly serves seven core fields: new energy power generation, power transmission and distribution systems, industrial and commercial civil building construction, IDC data centers, rail transit equipment, metallurgical and chemical equipment, and ship engineering. It meets the technical requirements for flexible transmission of large currents in different scenarios.

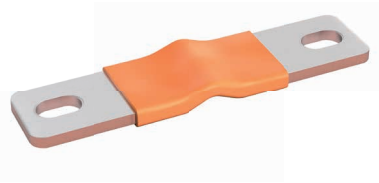
Rated current				Cross-sectional area mm^2	Temperature rise and Recommended Overcurrent (A)						Capacitance drop coefficient		Item No.
	H (Number of layers)	W (Width)	H1 (Single-layer thickness)		70K	60K	50K	40K	30K	20K	2 floor	3 floor	
125A	3	9	0.8	21.6	158	147	134	120	104	85	1.72	2.25	DN61241
	8	6	0.5	24	196	182	166	143	128	105	1.72	2.25	DN61240
	3	13	0.5	19.5	198	184	167	150	130	106	1.72	2.25	DN61244
	2	15.5	0.8	24.8	252	234	212	191	165	134	1.72	2.25	DN61239
250A	6	9	0.8	43.2	290	269	245	220	190	155	1.72	2.25	——
	6	13	0.5	39	300	277	253	226	196	160	1.72	2.25	DN61245
	9	9	0.8	64.8	314	291	265	237	206	168	1.72	2.25	DN61243
	2	20	1	40	326	300	275	246	214	174	1.72	2.25	DN61249
	4	15.5	0.8	49.6	380	350	320	286	248	202	1.72	2.25	DN61246
	3	20	1	60	428	395	360	323	280	228	1.72	2.25	DN61250
	2	24	1	48	450	416	380	340	295	240	1.72	2.25	DN61255
400A	6	15.5	0.8	74.4	476	440	402	360	318	254	1.72	2.25	DN61247
	4	20	1	80	476	440	402	360	312	254	1.72	2.25	DN61251
	2	32	1	64	480	445	406	363	315	257	1.72	2.25	DN61262
	3	24	1	72	490	453	413	370	320	261	1.72	2.25	DN61256
	5	20	1	100	498	460	420	376	326	266	1.72	2.25	DN61252
	10	15.5	0.8	124	538	498	455	407	352	288	1.72	2.25	DN61248
	2	40	1	80	538	500	455	406	352	288	1.72	2.25	DN61269
	6	20	1	120	546	506	462	413	358	292	1.72	2.25	DN61253
	4	24	1	96	550	510	465	416	360	294	1.72	2.25	DN61257
	3	32	1	96	570	525	480	430	372	304	1.72	2.25	DN61263
500A	5	24	1	120	608	563	514	460	398	325	1.72	2.25	DN61258
	3	40	1	120	617	570	522	466	405	330	1.72	2.25	DN61270
	4	32	1	128	648	600	548	490	425	347	1.72	2.25	DN61264
	6	24	1	144	670	620	566	506	438	358	1.72	2.25	DN61259
	3	50	1	150	700	650	592	530	460	374	1.72	2.25	DN61276
	4	40	1	160	727	673	615	550	476	389	1.72	2.25	DN61271

Ultra-flexible insulated busbar

Rated current				Cross-sectional area mm^2	Temperature rise and Recommended Overcurrent (A)						Capacitance drop coefficient		Item No.
	H (Number of layers)	W (Width)	H1 (Single-layer thickness)		70K	60K	50K	40K	30K	20K	2 floor	3 floor	
630A	5	32	1	160	758	702	640	573	496	405	1.72	2.25	DN61265
	10	20	1	200	762	706	645	576	500	408	1.72	2.25	DN61254
	8	24	1	192	802	743	678	606	525	429	1.72	2.25	DN61260
	6	32	1	192	846	783	715	640	555	452	1.72	2.25	DN61266
	4	50	1	200	860	795	727	650	563	460	1.72	2.25	DN61277
	5	40	1	200	900	832	760	680	590	481	1.72	2.25	DN61272
800A	10	24	1	240	948	877	800	716	592	506	1.72	2.25	DN61261
	4	63	1	252	1010	935	855	763	661	541	1.65	2.12	DN61283
	8	32	1	256	1018	943	860	770	667	544	1.72	2.25	DN61267
	6	40	1	240	1018	943	860	770	667	544	1.72	2.25	DN61273
	5	50	1	250	1100	1016	930	830	718	588	1.72	2.25	DN61278
1000A	4	80	1	320	1200	1110	1015	906	785	642	1.65	2.12	DN61289
	5	63	1	315	1220	1125	1030	920	797	651	1.65	2.12	DN61284
	6	50	1	300	1225	1135	1035	925	802	655	1.72	2.25	DN61279
	10	32	1	320	1230	1140	1040	930	805	658	1.72	2.25	DN61268
	8	40	1	320	1230	1140	1040	930	805	658	1.72	2.25	DN61274
	8	50	1	400	1393	1290	1175	1050	912	743	1.72	2.25	DN61280
	5	80	1	400	1390	1285	1175	1050	910	743	1.65	2.12	DN61290
	10	40	1	400	1400	1295	1181	1055	915	747	1.72	2.25	DN61275
	6	63	1	378	1437	1330	1215	1085	941	768	1.65	2.12	DN61285
1250A	6	80	1	480	1627	1505	1375	1230	1065	870	1.65	2.12	DN61291
	5	100	1	500	1635	1515	1385	1235	1070	876	1.6	2.02	DN61295
	10	50	1	500	1650	1525	1395	1245	1080	882	1.72	2.25	DN61281
	8	63	1	504	1650	1525	1395	1245	1080	882	1.65	2.12	DN61286
	6	100	1	600	1843	1705	1550	1393	1205	980	1.6	2.02	DN61296
1600 A	10	63	1	630	1895	1755	1600	1435	1240	1012	1.65	2.12	DN61287
	8	80	1	640	1895	1755	1600	1430	1240	1012	1.65	2.12	DN61292
	10	80	1	800	2100	1945	1775	1585	1375	1123	1.65	2.12	DN61293
	8	100	1	800	2147	1990	1815	1625	1405	1148	1.6	2.02	DN61297
	10	100	1	1000	2350	2170	1985	1775	1535	1255	1.6	2.02	DN61298
	12	100	1	1200	2500	2315	2115	1890	1636	1338	1.6	2.02	DN61299
	10	120	1	1200	2755	2550	2330	2070	1792	1474	1.49	1.95	DN61300

Note1: The above data are the theoretical calculated values corresponding to the temperature rise at normal temperature
Note2: Select the ultra-flexible busbar according to the width of the end of the connected device
Note3: H= Number of busbar layers, H1= thickness of each layer, W= width of the busbar
Note4: The default supply length of the ultra-flexible busbar is 2000mm. If you have any other requirements, please contact our company
Note5: Customization is available according to customer requirements

Copper foil flexible connection



Model and meaning

DN TBR (X) - □ × □ × □ / □ / □

- Product shape and hole type
- Hole diameter (d)
- Thickness (T)
- Width (W)
- Length (L)
- X: tin plating
  N: nickel plating
  Y: silver-plated
- Flexible copper flat wire
- Enterprise code

Technical data

Material	c11000 copper foil, copper content ⩾ 99.95%
Single-layer thickness	0.50 mm 0.30 mm 0.20 mm 0.10 mm(standard) 0.05 mm 0.03 mm
Surface treatment	no plating, tin plating, nickel plating, silver plating, welded nickel sheet, welded silver sheet
Cross Sectional Area	10 mm^2-5000 mm^2

When you place an order, please specify:

Length (L) x Width (W) x Thickness (T)
Product shape and Hole type
Hole diameter (d)
Single-layer thickness (default 0.10mm)

Structure and application

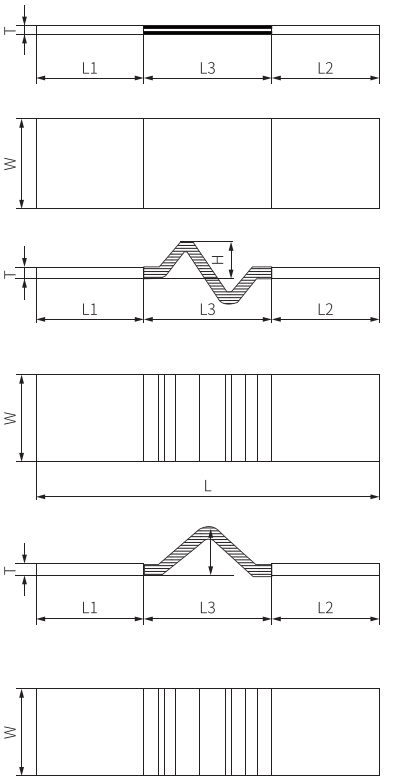
The copper foil flexible connection is formed by stacking multiple sheets of c11000 copper foil, with both ends welded under pressure. with optional drilling on the contact surfaces per customer requirements.

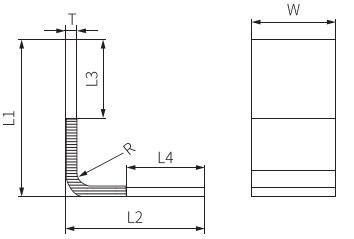
Molecular diffusion welding is a precise welding technique that promotes interatomic diffusion and bonding of workpieces under high temperature and pressure. It forms high-strength joints while maintaining the workpieces free from visible deformation.

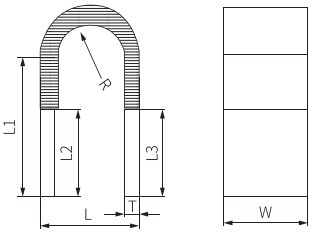
As an excellent electrical conductor, the copper foil flexible connection is widely used in new energy vehicles, wind power generation, photovoltaic energy storage, electric locomotives, complete power transmission and distribution systems, and related industries.

We provide customized production based on customer drawings or samples, along with systematic service support.

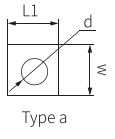
Copper foil flexible connection



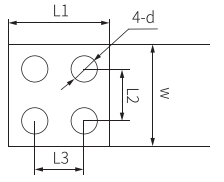




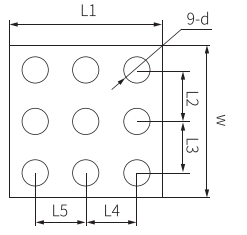
Hole type



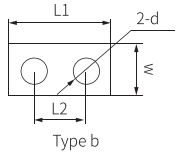
Type a



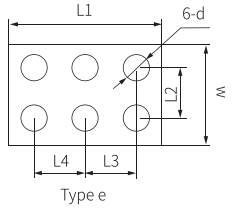
Type d



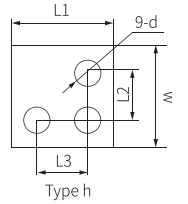
Type g



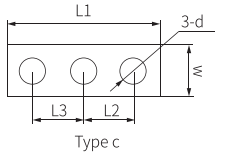
Type b



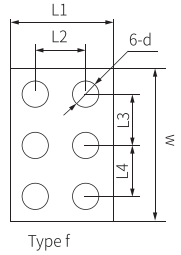
Type e



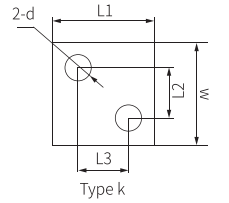
Type h



Type c



Type f



Type k

If elliptical holes are required: Please specify

Copper foil flexible connection

No-Plating Flexible Connection

This copper foil flexible connection is constructed by stacking multiple layers of copper foil, with both ends pressure-welded.

- Soft
- Flexible
- Long life

Tin-, Nickel-, and Silver-Plating Flexible Connection

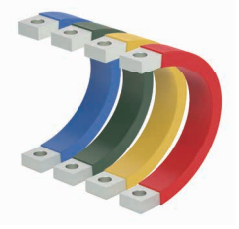
As per customer requirements, the contact surfaces at both ends of the copper foil flexible connection or the entire product surface are treated using electroplating.

- Resistant to abrasion
- Resistant to corrosion
- Resistant to oxidation

Welded Nickel Sheet, Silver Sheet Flexible Connection

As per customer requirements, the copper foil flexible connection can be covered with nickel foil or silver foil on upper and lower Contact surface(thickness 0.1-0.5mm)

- Localized protect
- High bonding
- High bonding



Sleeving tubing Copper Foil Flexible Connection

根据客户要求，对铜箔软连接可外套热缩管。外套热缩管可使铜箔软连接具备更好的抗氧化性能和抗腐蚀性能，因而满足电气部件的绝缘要求。

- Flexible connection
- Fast and efficient
- Low cost

Plastic Dipping Copper Foil Flexible Connection

根据客户要求，采用PVC材料，经高温溶解后形成液体，将软连接浸入其中使其表面附着一层绝缘层。PVC浸塑可满足不规则形状的铜箔软连接的绝缘完整性。

-Full coverage
-Resistant to corrosion
-High mechanical strength

New energy special-shaped rigid busbar

Special-shaped rigid busbar

Model and meaning

DN TMY 2 (X) - □ × □

- Length (L)
- Cross-sectional area
- X: tin plating
- Design code
- Hard copper busbar
- Enterprise code

Technical data

Material	c11000 copper foil, copper content ⩾ 99.95%
Thickness	0.50~40 mm
Surface treatment	no plating, tin plating, nickel plating, silver plating
Optional material	silver, aluminium, brass

When you place an order, please specify:
Cross-sectional area x Length (L)
Product shape and Hole type
Hole diameter (d)

Structure and application

Special-shaped rigid copper busbars can be customized in special shapes and dimensions according to customer requirements.

GRL special-shaped rigid copper busbar products, the insulation layer options include sleeving, dipped PVC, or sprayed epoxy resin, and can also be customized as per customer requests.

Customized rigid copper busbar

Extruded 3D-bent rigid busbar

Technical data

Material	C11000 copper / aluminum

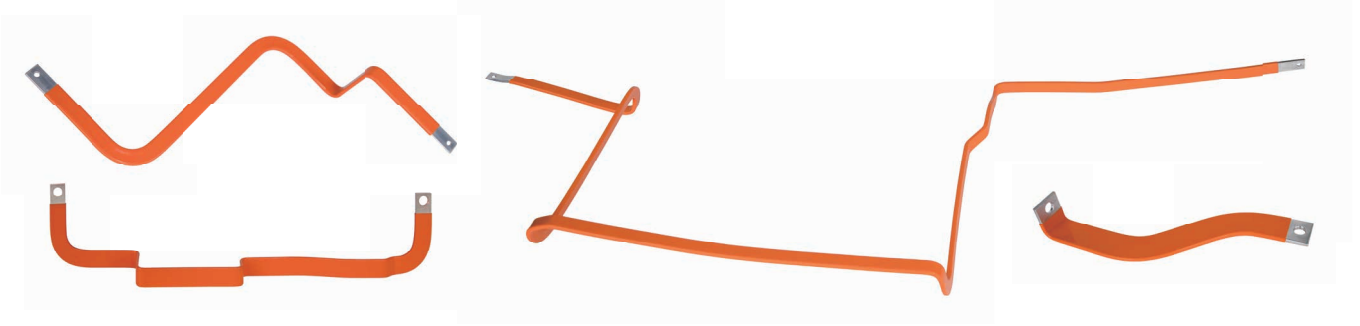
Structure and application

This rigid busbar is formed through specific manufacturing processes, with 3D bending performed according to design requirements.

Advantage

automation, high precision enabling, customization for various angles

W=Thickness (mm)	T=Width (mm)	Number of axes	Bending coefficient
1.0-5.0mm	10-25mm	6	0.8



Extrusion molding rigid busbar

Technical data

Material	C11000 copper / aluminum

Structure and application

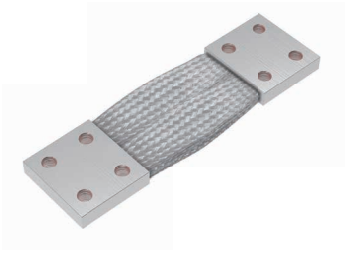
Extrusion molding rigid busbar is a copper/aluminum product manufactured via extrusion processing.

Advantage

Excellent electrical insulation, high wear resistance, superior vibration & impact resistance, multidimensional forming capability, and space-saving design.

W=Width (mm)	Insulating material	Withstand pressure	Temperature resistance
0.4~0.8mm	PA12	2700V	150°C
0.5~2mm	PVC	3500V	-40~125°C

Copper braided flexible connection (copper tubes welded at both ends)



Model and meaning

DN TZ (X) - □ × □ × □ / □

- Copper tube type & hole type
- Hole diameter (d)
- Length (L)
- Cross-sectional area
- X: tin plating
  N: nickel plating
  Y: silver-plated
- Flexible copper braided wire
- Enterprise code

Technical data

Material	c11000 copper wire, copper content ⩾ 99.95%
Single wire diameter	0.200 mm----32AWG 0.150 mm----Standard 0.127 mm----36AWG 0.100 mm----38AWG 0.070 mm----41AWG 0.050 mm----44AWG
Surface treatment	no plating, tin plating, nickel plating, silver plating
Cross-sectional area	1.5 mm^2-6000 mm^2

When you place an order, please specify:
Cross-sectional area
Length (L)
Copper tube type & hole type
Hole diameter (d)
Single wire diameter (default 0.15mm)

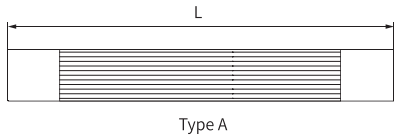
Structure and application

This product is Constructed by multiple braided strands of copper wire, with seamless copper tubes crimped at eachside as contact areas, with optional drilling on the contact surfaces as per customer requirements.

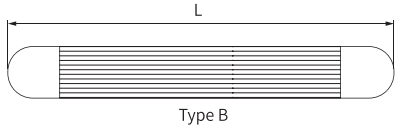
Standard: JB/T6313.2-2001.

Copper braided flexible connection (copper tubes welded at both ends)

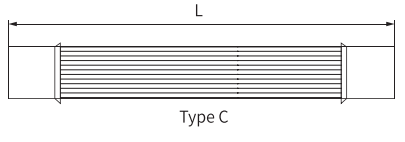
Copper tube type



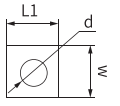
Type A



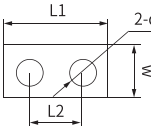
Type B



Type C



Type a



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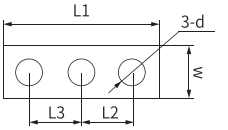
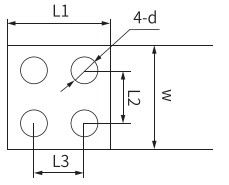


Type c

Hole type



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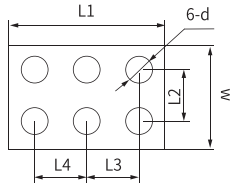

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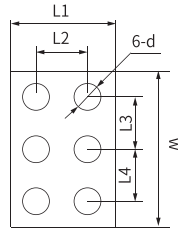
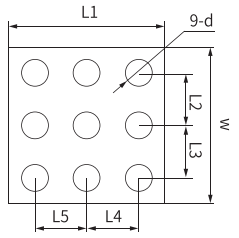
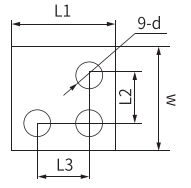


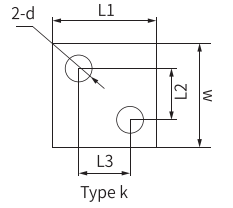
Type f



Type g



Type h



Type k

If elliptical holes are required: Please specify

Copper braided flexible connection (copper tubes welded at both ends)

Cross-sectional area: 1.5mm²-70mm²

Product model	Cross Section (mm²)	W(mm) approx.	T(mm) approx.	L(mm)	d(mm)
DNTZ(X)-1.5/L/d/Aa	1.5	4	1.6	According to your request	According to your request
DNTZ(X)-2/L/d/Aa	2	5	1.6		
DNTZ(X)-2.5/L/d/Aa	2.5	6	1.6		
DNTZ(X)-4/L/d/Aa	4	7	1.8		
DNTZ(X)-6/L/d/Aa	6	10	1.8		
DNTZ(X)-8/L/d/Aa	8	12	1.8		
DNTZ(X)-10/L/d/Aa	10	15	1.8		
DNTZ(X)-12/L/d/Aa	12	20	1.9		
DNTZ(X)-14/L/d/Aa	14	20	2.1		
DNTZ(X)-16/L/d/Aa	16	19	2.2		
DNTZ(X)-20/L/d/Aa	20	20	2.4		
		25	2.6		
DNTZ(X)-25/L/d/Aa	25	20	2.7		
		25	2.8		
DNTZ(X)-35/L/d/Aa	35	25	3.3		
DNTZ(X)-50/L/d/Aa	50	20	4.2		
		25	4.0		
		30	4.0		
		40	3.5		
		45	4.0		
DNTZ(X)-70/L/d/Aa	70	20	7.0		
		25	5.7		
		30	5.5		

Cross-sectional area: 95mm²-200mm²

Product model	Cross Section (mm²)	W(mm) approx.	T(mm) approx.	L(mm)	d(mm)
DNTZ(X)-1.5/L/d/Aa	95	40	5.3	According to your request	According to your request
DNTZ(X)-100/L/d/Aa	100	20	8.5		
		25	7.0		
		30	6.0		
		40	5.4		
		45	5.5		
		50	5.4		
DNTZ(X)-120/L/d/Aa	120	25	8.5		
		30	7.3		
		45	6.3		
		50	5.9		
DNTZ(X)-150/L/d/Aa	150	30	8.6		
		40	6.9		
		45	7.1		
		50	6.6		
DNTZ(X)-185/L/d/Aa	185	30	10.0		
		40	8.0		
		50	7.5		
DNTZ(X)-200/L/d/Aa	200	30	10.6		
		40	8.4		
		50	7.8		
		60	7.0		
		75	6.7		
			6.0		

Note: Customization available upon customer request.

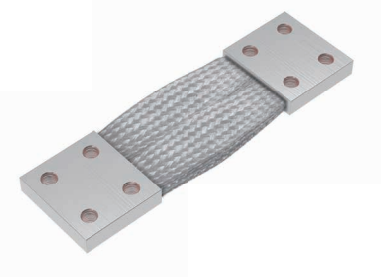
Copper braided flexible connection (copper tubes welded at both ends)

Cross-sectional area: 250mm²-600mm²

Product model	Cross Section (mm^2)	W(mm) approx.	T(mm) approx.	L(mm)	d(mm)
DNTZ(X)-250/L/d/Aa	250	30	12.7	According to your request	According to your request
		40	10.0		
		45	9.8		
		60	8.0		
		50	9.0		
		75	8.0		
		100	7.0		
DNTZ(X)-300/L/d/Aa	300	30	14.7		
		40	11.5		
		45	11.1		
		50	10.2		
		60	9.0		
		75	8.0		
		80	8.0		
		100	7.8		
DNTZ(X)-400/L/d/Aa	400	40	16.5		
		45	16.0		
		50	13.0		
		75	10.6		
		80	9.5		
		100	10.0		
		120	9.0		
		150	9.0		
DNTZ(X)-500/L/d/Aa	500	40	18.9		
		45	17.0		
		50	15.5		
		60	14.0		
		75	14.0		
		80	13.5		
		100	11.2		
		120	10.2		
		150	11.0		
DNTZ(X)-600/L/d/Aa	600	40	22.0		
		45	19.8		
		50	18.0		
		60	16.5		
		75	15.0		
		80	13.0		
		100	12.0		
		120	11.5		
			9.5		

Note: Customization available upon customer request.

Copper braided flexible connection (copper tubes welded at both ends)



Cross-sectional area: 700mm²-1000mm²

Product model	Cross Section (mm^2)	W(mm) approx.	T(mm) approx.	L(mm)	d(mm)
DNTZ(X)-700/L/d/Aa	700	40	25.3	According to your request	
		45	22.6		
		50	20.5		
		75	17.5		
		100	13.5		
		120	13.2		
		150	11.7		
DNTZ(X)-800/L/d/Aa	800	40	28.4		
		45	25.4		
		50	23.0		
		60	20.8		
		75	17.3		
		80	16.4		
		100	14.5		
		120	14.0		
		150	12.5		
DNTZ(X)-1000L/cAa	1000	60	25.0		
		75	20.5		
		80	20.0		
		100	16.0		
		120	14.5		
		150	13.7		
		200	11.0		

Note: Customization available upon customer request.

Cross-sectional area: 1200mm²-6000mm²

Product model	Cross Section (mm^2)	W(mm) approx.	T(mm) approx.	L(mm)	d(mm)
DNTZ(X)-1200/L/d/Aa	1200	75	24.2	According to your request	
		80	18.0		
		100	19.8		
		120	19.0		
		150	18.0		
		200	12.0		
DNTZ(X)-1300/L/d/Aa	1300	100	21.1		
		120	19.4		
		150	19.0		
		200	13.0		
DNTZ(X)-1400/L/d/Aa	1400	100	24.0		
		120	21.0		
		150	20.0		
		200	13.5		
DNTZ(X)-1500/L/d/Aa	1500	100	24.5		
		120	22.2		
		150	21.0		
		200	14.0		
DNTZ(X)-1600/L/d/Aa	1600	120	23.5		
		150	22.0		
		200	14.5		
DNTZ(X)-1800/L/d/Aa	1800	120	27.2		
		150	24.0		
		200	16.0		
DNTZ(X)-2000/L/d/Aa	2000	120	31.0		
		150	26.0		
		200	17.5		
DNTZ(X)-2500/L/d/Aa	2500	120	38.5		
		150	35.0		
		200	23.0		
DNTZ(X)-3000/L/d/Aa	2500	120	46.0		
		150	38.5		
		200	24.0		
DNTZ(X)-4000/L/d/Aa	4000	120	60.0		
		150	49.0		
		200	30.0		
DNTZ(X)-4500/L/d/Aa	4500	120	66.0		
		150	54.0		
		200	32.0		
DNTZ(X)-5000/L/d/Aa	5000	120	74.0		
		150	59.0		
		200	35.0		
DNTZ(X)-6000/L/d/Aa	6000	120	86.0		
		150	70.0		
		200	40.0		

Copper stranded flexible connection

Model and meaning

DN TJR (X) - □ □ / □ / □

- Copper tube type & hole type
- Hole diameter (d)
- Length (L)
- Cross-sectional area
- X: tin plating
- Flexible copper stranded wire
- Enterprise code

Technical data

Material	c11000 copper wire, copper content ⩾ 99.95%
Single wire diameter	0.254 mm----30AWG 0.250 mm 0.200 mm----32AWG 0.150 mm----Standard 0.127 mm----36AWG 0.100 mm----38AWG 0.070 mm----41AWG 0.050 mm----44AWG
Surface treatment	no plating, tin plating
Cross-sectional area	1.5 mm^2-500 mm^2

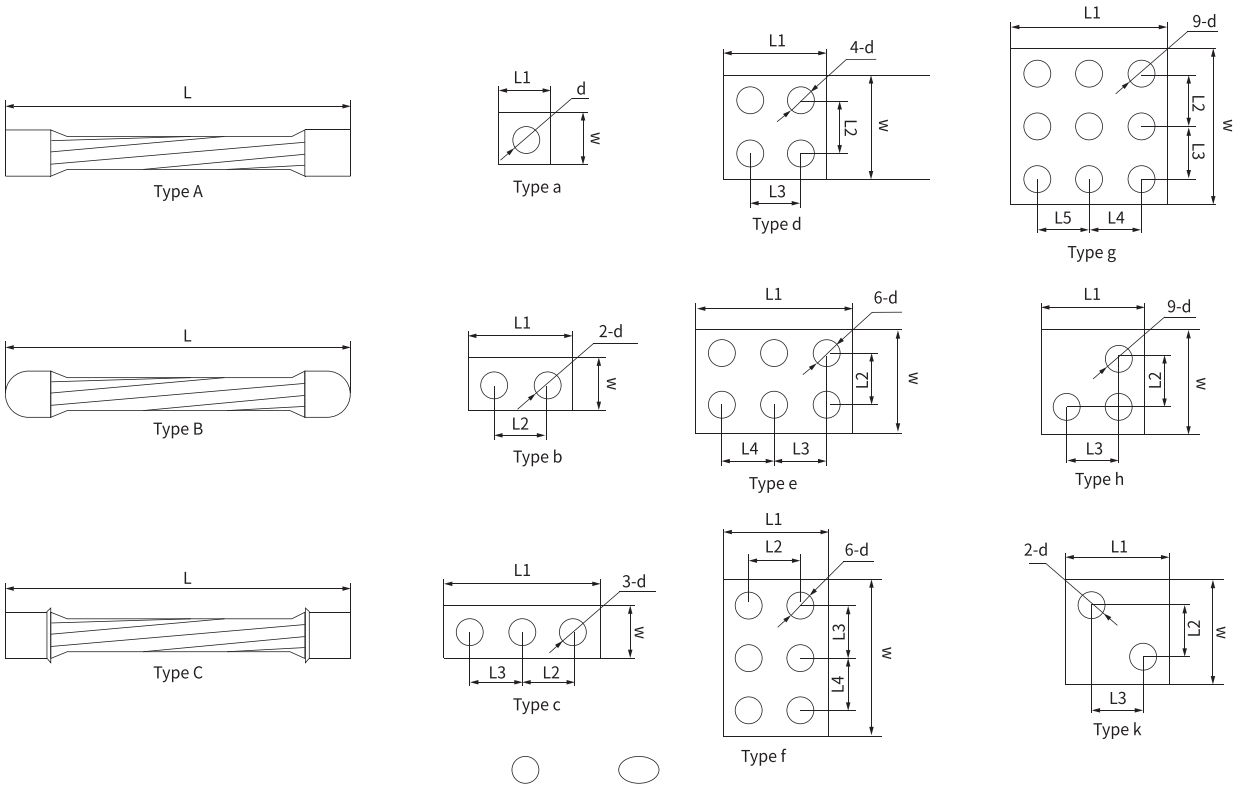
When you place an order, please specify:
Cross-sectional area x Length (L)
Copper tube type & hole type
Hole diameter (d)
S**Single wire diameter** (default 0.15mm)

Structure and application

This product is made of flexible copper stranded wires, with seamless copper tubes crimped at eachside as contact areas, with optional drilling on the contact surfaces as per customer requirements.

Standard: GB/T 12970.2-2009

Copper stranded flexible connection



If elliptical holes are required: Please specify

Copper stranded connector with lug

Model and meaning

DN TJR (X) - □ □ / □ / □

- Copper terminal type
- Hole diameter (d)
- Length (L)
- Cross-sectional area
- X: tin plating
- Flexible copper stranded wire
- Enterprise code

Structure

This product is made of flexible copper stranded wires with solderless pressed lugs at eachside as contact areas.

Normally the flexible connection of smaller cross sectional area adopts this connecting type.

Standard: GB/T 12970.2-2009

Technical data

Material	c11000 copper wire, copper content ⩾ 99.95%
Copper terminal type	SC type、JG type、DT type、OT type、UT type
Cross-sectional area	1.5 mm^2-500 mm^2
Surface treatment	no plating, tin plating

Bus-bar expansion joint

Model and meaning

DN M S T - □ × □

- DN: Enterprise code
- M: Busbar
- S: Expansion joint
- T: Copper
- □: Thickness (T)
- □: Width (W)

Technical data

Material	c11000 copper, copper content ⩾ 99.95%

Structure and application

The DNMST type copper busbar expansion joint is an expansion connection component used to compensate for the deformation of the busbar caused by temperature changes and vibration deformation. It is usually used in the distribution equipment of power plants and substations. The copper sheet stacking parts are welded together by brazing, and the flat copper block is formed by butt welding with silver-based brazing material.

Standard: GB2343-1985。

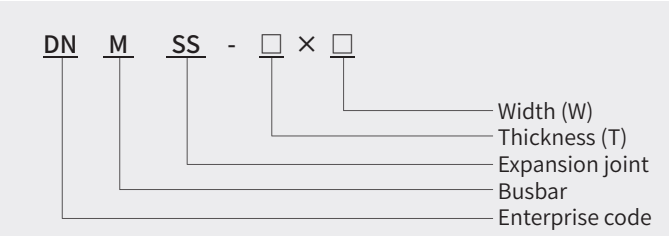
DNMST type bus-bar expansion joint

Product model	W(mm)	T(mm)	L1(mm)	L2(mm)	Total Unfolded Length (mm)
DNMST-4×40	4	40	60	170	290
DNMST-5×50	5	50	60	170	290
DNMST-6×60	6	60	75	190	340
DNMST-6.3×63	6.3	63	75	190	340
DNMST-6×80	6	80	95	190	380
DNMST-8×80	8	80	95	190	380
DNMST-8×100	8	100	115	220	450
DNMST-8×120	8	120	140	220	500
DNMST-8×125	8	125	140	220	500
DNMST-10×80	10	80	95	190	380
DNMST-10×100	10	100	115	220	450
DNMST-10×120	10	120	135	200	500
DNMST-10×125	10	125	140	220	500
DNMST-12×120	12	120	140	220	500
DNMST-12×125	12	125	140	220	500
DNMST-12.5×125	12.5	125	140	220	500

Note: Customization available upon customer request.

Copper-aluminum busbar expansion joint

Model and meaning



Technical data

Material	c11000 copper, copper content ⩾ 99.95%
	L3 aluminum plate

Structure and application

The DNMSS type copper-aluminum busbar expansion joint is an expansion connection component used to compensate for the deformation of the busbar caused by temperature changes and vibration deformation. It is usually used for the connection between copper and aluminum busbars in power plants and substations.

The copper-aluminum busbar expansion joint products are manufactured by flash welding process.

Standard: GB2343-1985。

DNMSS type bus-bar expansion joint

Product model	W(mm)	T(mm)	L1(mm)	L2(mm)	Total Unfolded Length (mm)
DNMSS-4×40	4	40	60	170	330
DNMSS-5×50	5	50	60	170	330
DNMSS-6×60	6	60	75	190	380
DNMSS-6.3×63	6.3	63	75	190	380
DNMSS-6×80	6	80	95	190	420
DNMSS-8×80	8	80	95	190	420
DNMSS-8×100	8	100	115	220	490
DNMSS-10×80	10	120	95	190	420
DNMSS-10×100	10	125	115	220	490
DNMSS-10×120	10	80	135	200	540
DNMSS-10×125	10	100	140	220	540
DNMSS-12×120	12	120	140	220	540
DNMSS-12×125	12	125	140	220	540

Note: Customization available upon customer request.

Copper braided wire

Model and meaning

DN TZ (X) - □ / □

- DN: Enterprise code
- TZ: Flexible copper braided wire
- (X): X: tin plating
- First □: Single wire diameter
- Second □: Nominal cross-sectional area

Technical data

Material	c11000 copper wire, copper content ⩾ 99.95%
Single wire diameter	0.200 mm----32AWG 0.150 mm----Standard 0.127 mm----36AWG 0.120 mm 0.100 mm----38AWG 0.070 mm----41AWG 0.050 mm----44AWG
Surface treatment	no plating, tin plating
Spindle count	16, 24, 32, 36, 40, 48, 64, 96
Cross-sectional area	1 mm^2-300 mm^2
Packaging method	roll packaging, reel packaging, wooden shaft packaging

Structure and application

This product is Constructed by multiple braided strands of copper wire.

Its can be used in electrical installation, switchgear, electric furnaces and storage batteries, etc. playing the role of flexible conduction and flexible grounding.

Standard: JB/T6313.2-2001.

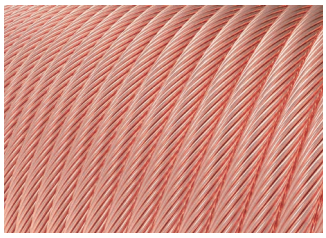
Copper braided wire

Single wire diameter: 0.15mm(Standard)

Product model	Nominal Cross Section (mm^2)	Calculate Cross Section (mm^2)	Wire structure(mm) Spindle count × Wires per spindle × Number of sets/Single wire diameter	W(mm) approx.	T(mm) approx.	Weight (kg/km) approx.	Max. current capacity(A) Ambient temperature: 35°C
DNTZ(X)-15/1.5	1.5	1.69	24×4×1/0.15	4.0	0.8	15.8	21
DNTZ(X)-15/2	3	2.12	24×5×1/0.15	5.0	0.8	19.6	25
DNTZ(X)-15/2.5	2.5	2.54	24×6×1/0.15	6.0	0.8	23.5	30
DNTZ(X)-15/3	3	2.97	24×7×1/0.15	6.2	1.0	27.4	35
DNTZ(X)-15/4	4	4.24	24×10×1/0.15	7.0	1.2	39.2	40
		3.95	32×7×1/0.15	8.0	1.0	36.5	
		4.52	32×8×1/0.15	8.5	1.0	41.2	
		4.23	48×5×1/0.15	12.0	0.8	39.1	
DNTZ(X)-15/6	6	6.24	32×11×1/0.15	10.0	1.2	57.5	55
		6.36	36×10×1/0.15	11.0	1.2	58.9	
		5.93	48×7×1/0.15	12.0	1.0	54.8	
DNTZ(X)-15/8	8	8.48	32×15×1/0.15	12.0	1.5	78.4	70
		8.45	48×10×1/0.15	15.0	1.2	79.0	
		7.91	64×7×1/0.15	18.0	1.0	73.2	
DNTZ(X)-15/10	10	10.18	24×24×1/0.15	12.5	2.0	95.0	85
		10.7	36×16×1/0.15	14.0	1.5	95.0	
		10.60	40×15×1/0.15	15.0	1.5	98.0	
		10.18	48×12×1/0.15	16.0	1.3	94.0	
DNTZ(X)-15/11	11	11.02	48×13×1/0.15	18.0	1.3	102.0	90
DNTZ(X)-15/12	12	12.72	24×30×1/0.15	14.0	2.0	118.0	95
		12.72	48×15×1/0.15	18.0	1.5	118.0	
		12.43	64×11×1/0.15	22.0	1.3	116.1	
DNTZ(X)-15/16	16	16.96	24×40×1/0.15	16.0	2.2	159.0	120
		16.96	48×20×1/0.15	22.0	1.8	159.0	
DNTZ(X)-15/20	20	21.20	24×50×1/0.15	18.0	2.5	198.0	135
		21.20	48×25×1/0.15	25.0	2.0	198.0	
DNTZ(X)-15/25	25	25.45	24×60×1/0.15	22.0	3.0	238.0	150
		25.45	48×30×1/0.15	28.0	1.8	238.0	
		25.45	48×15×2/0.15	20.0	3.5	238.0	
DNTZ(X)-15/35	35	33.93	24×80×1/0.15	25.0	4.0	317.0	195
		33.93	32×60×1/0.15	28.0	3.0	317.0	
		33.93	64×30×1/0.15	35.0	2.0	317.0	
		33.93	48×20×2/0.15	26.0	3.5	317.0	
DNTZ(X)-15/50	50	50.02	24×118×1/0.15	30.0	6.0	472.0	250
		50.23	36×79×1/0.15	35.0	4.0	473.0	
		50.87	64×45×1/0.15	50.0	2.5	480.0	
		50.87	48×30×2/0.15	30.0	3.5	480.0	
		50.89	48×20×3/0.15	28.0	4.8	483.0	
DNTZ(X)-15/70	70	67.82	64×30×2/0.15	41.0	4.0	633.0	300
DNTZ(X)-15/75	75	75.03	36×118×1/0.15	35.0	6.0	710.0	325
		76.34	48×90×1/0.15	50.0	5.0	725.0	
		75.73	64×67×1/0.15	58.0	3.2	720.0	
		74.88	80×53×1/0.15	55.0	13.5	699.7	
		76.34	48×30×3/0.15	32.0	5.0	726.0	
DNTZ(X)-15/95	95	94.74	36×149×1/0.15	45.0	6.0	885.3	360
		94.95	48×112×1/0.15	55.0	5.0	887.3	
		94.95	64×84×1/0.15	60.0	4.0	887.3	
		94.95	48×28×4/0.15	35.0	6.0	895.7	
DNTZ(X)-15/100	100	99.83	36×157×1/0.15	40.0	6.0	932.8	380
		100.04	48×118×1/0.15	45.0	5.0	934.8	
		100.09	96×59×1/0.15	100.0	2.0	943.7	
		101.74	64×45×2/0.15	50.0	5.0	959.8	
		101.74	64×30×3/0.15	42.0	6.0	959.8	
		101.74	48×30×4/0.15	32.0	7.5	959.8	
DNTZ(X)-15/120	120	126.32	48×149×1/0.15	55.0	6.0	1180.4	420
		120.95	64×107×1/0.15	60.0	4.0	1130.3	
		118.69	96×70×1/0.15	95.0	3.2	1119.7	
		127.17	48×30×5/0.15	37.0	7.0	1199.7	

Note: Customization available upon customer request.

Soft copper stranded wire
Copper stranded wire with plastic tubing



Model and meaning

DN TJR (X) □ - □

- Cross-sectional area
- Single wire diameter
  1：0.250 mm - 1.050 mm
  2：0.200 mm
  3：0.150 mm
- X: tin plating
- Flexible copper stranded wire
- Enterprise code

Structure

Soft copper stranded wire is made by twisting T2 red copper wires together. Its structure consists of the total number of strands and the number of pins × the number of strands per pin/the diameter of a single wire.

Example: The soft copper stranded wire with a cross-sectional area of 2.5mm² is composed of 49 copper wires in a 7×7/0.15 structure.

Technical data

Material	c11000 copper wire, copper content ⩾ 99.95%
Single wire diameter	0.150 mm----Standard 0.200 mm----32AWG 0.250 mm----30AWG 1.050 mm----18AWG
Surface treatment	no plating, tin plating
Cross-sectional area	1.5 mm²-2000 mm²
Packaging method	roll packaging, reel packaging, wooden shaft packaging

Model and meaning

DN TJR V (X) - □

- Cross-sectional area
- X: tin plating
- V: insulated
- Flexible copper stranded wire
- Enterprise code

Structure

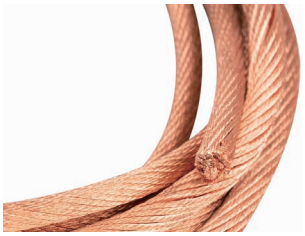
Plastic-coated soft copper stranded wire is made of soft copper stranded wire with plastic-coated PVC.

It is usually used in electrical installation, switchgear, electric furnaces and storage oil, etc., to play the role of flexible conduction and flexible grounding.

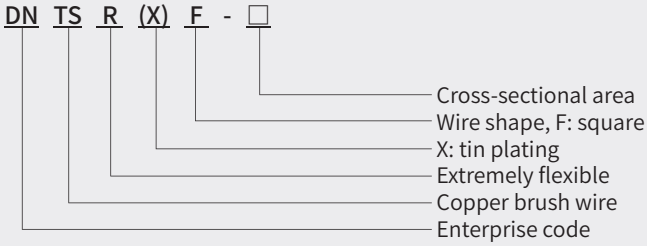
Technical data

Material	c11000 copper wire, copper content ⩾ 99.95%
Single wire diameter	0.150mm
PVC insulation color	Transparent (Color available for customization)
Cross-sectional area	2.5 mm²-120 mm²
Surface treatment	no plating, tin plating
Packaging method	roll packaging, reel packaging, wooden shaft packaging

Copper brush wire
Hard copper stranded wire



Model and meaning



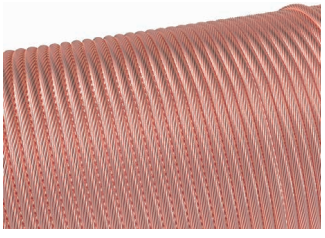
Structure

The copper brush wire is made by twisting together thinner T2 red copper wires.

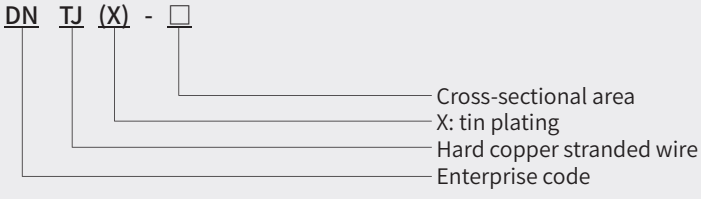
It is usually used for flexible connections in motor, electrical appliance and instrument circuits, especially suitable for applications of alternating current or high-frequency current.

Technical data

Material		c11000 copper wire, copper content ⩾ 99.95%
Single wire diameter	DNTS	0.120 mm 0.100 mm----38AWG
	DNTSR	0.070 mm----41AWG 0.050 mm----44AWG
Surface treatment		no plating
Cross-sectional area		1 mm^2-16 mm^2
Packaging method		roll packaging, reel packaging, wooden shaft packaging



Model and meaning



Structure

Hard copper stranded wire is made by twisting together T2 red copper wires with larger single wire diameters and greater breaking loads, and is used as a conductor.

Technical data

Material	c11000 copper wire, copper content ⩾ 99.95%
Single wire diameter	1.700 mm 2.850 mm 3.150 mm
Surface treatment	16 mm^2-400 mm^2
Cross-sectional area	no plating, tin plating
Packaging method	wooden shaft packaging

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