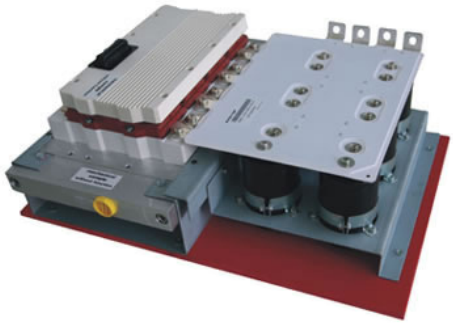
Fabricated Bus Bars

Bus Bar Solutions from Baknor delivers superior quality from design through to manufacturing of your product. With innovative power distribution solutions Baknor will provide bus bars using a variety of materials, insulation and plating to meet your exact needs. With outstanding technical expertise and advanced manufacturing techniques, Baknor provides you with a very large variety of customized bus bars that are very high quality, low cost and include precision machining.

Custom Design

Bus bars can be custom designed to meet your requirements for many different unique applications across a number of diverse industries. From prototypes to low volume production to high mix requirements or high volume needs, look to Baknor for your custom fabricated bus bars and bus bar assemblies.

- Single Layer Bus Bar
- Multilayer Laminated Bus Bars
- Braided Bus Bars and Assemblies



Designs Considerations

Joinning methods, performance and maintenance
Temperature rise due to energy losses
Short-circuit stresses and protection
Energy efficiency and lifetime cost

Material Requirements Includes

Ease of fabrication
High resistance to corrosion
Low electrical and thermal resistance
Low electrical resistance of surface films
Competitive first costs and high eventual recovery value
High mechanical strength in tension, compression and shear

Material

Conductor material is critical in meeting electrical and mechanical performance. Copper is typical with aluminum as the alternative.

Thermal

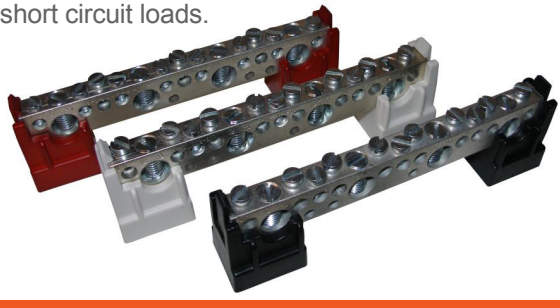
Thermal considerations include possible design considerations for ventilation and / or dissipation of the heat from components.

Finishing

Plating is a major consideration. Tin, tin-lead, nickel, silver or gold finishes that can provide advantageous electrical properties.

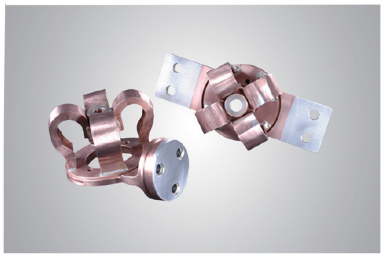
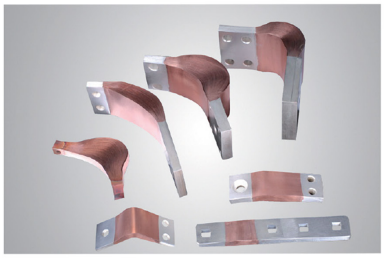
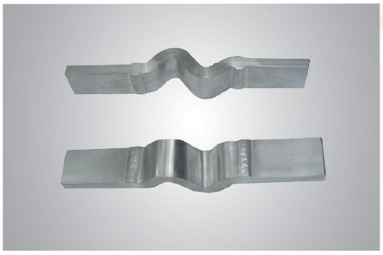
Mechanical Strength

Proper strength ensures material does not sag over an extended working life at maximum temperature, does not creep under pressure leading to loosened joints and does not permanently distort under short circuit loads.

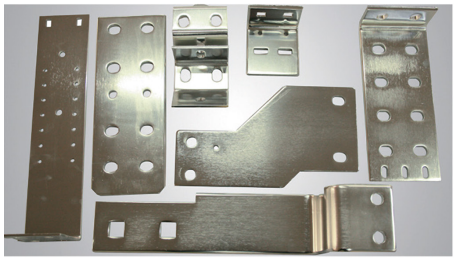


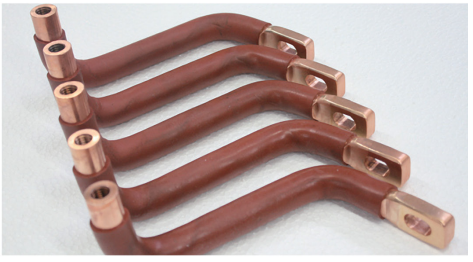
Fabricated Bus Bars

Flexible

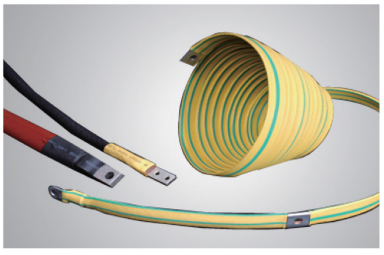

Machined



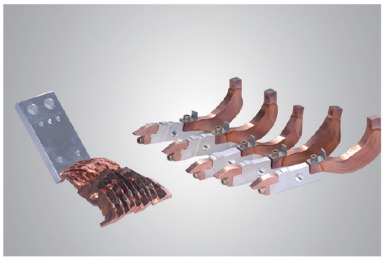
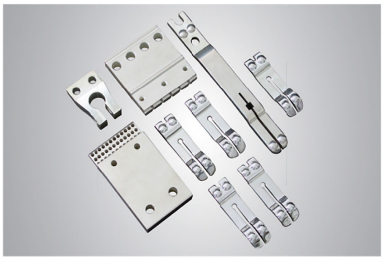


Braided

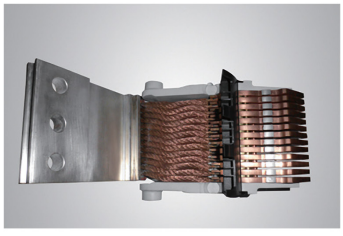
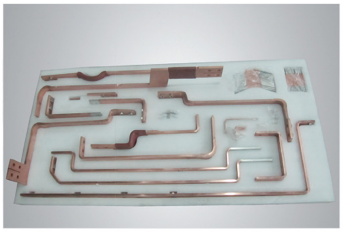





Contacts


Assemblies

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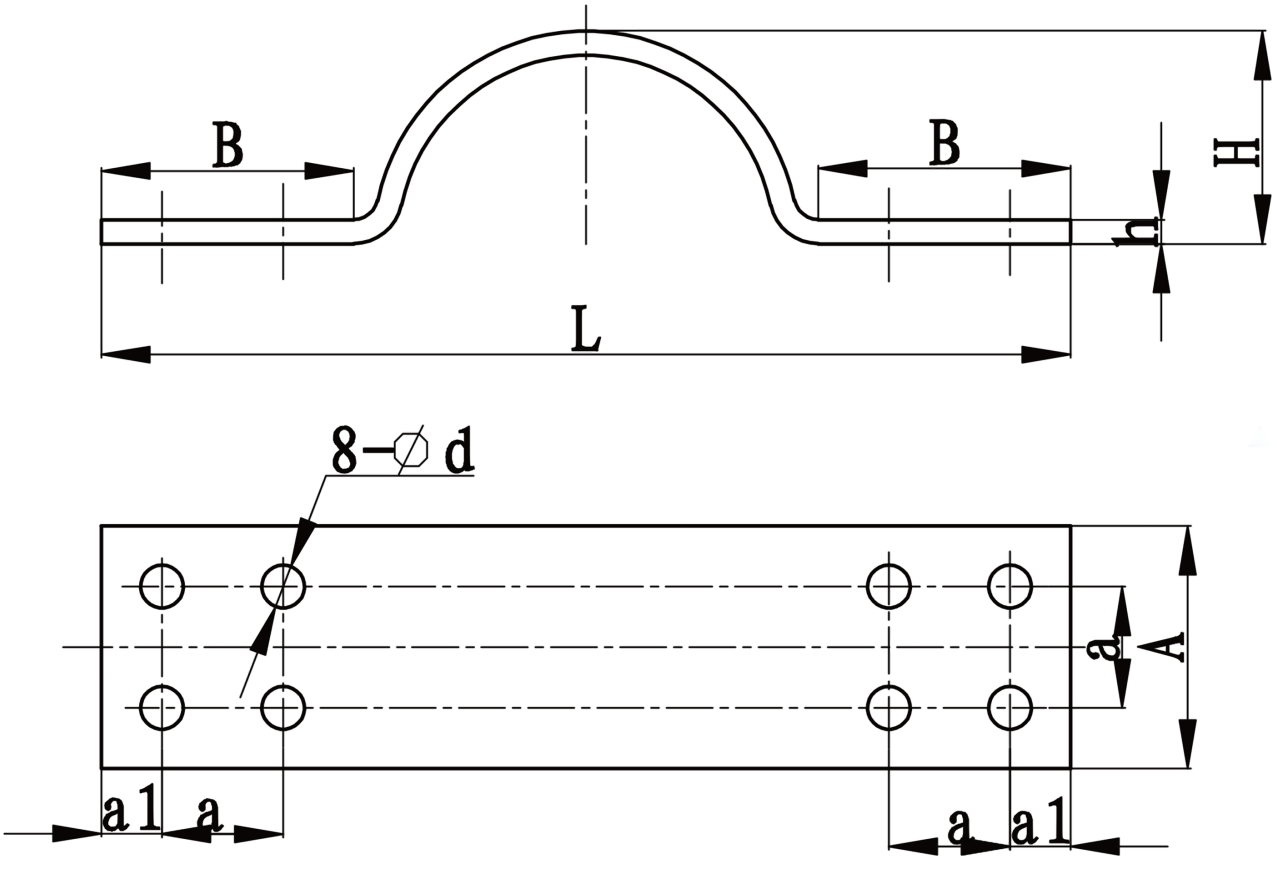
Tel: 1.905.624.1800 1.877.902.2566 sales@baknor.com www.baknor.com

Fabricated Bus Bars

Flexible Bus Bar									
Specification	Suggested Rated Current	(mm)				L	Hole Dimensions (mm)		
		A	h	H	B	(mm)	a	al	ϕ d
VRX-60×10	630	60	5	50	70	400	40	15	13
VRX-60×6	800	60	6	50	70	400	40	15	13
VRX-80×6	1000	80	6	50	80	400	40	20	14
VRX-80×8	1250	80	8	50	80	400	40	20	14
VRX-80×10	1600	80	10	50	80	400	40	20	14
VRX-100×6	1250	100	6	50	100	500	50	25	18
VRX-100×8	1600	100	8	50	100	500	50	25	18
VRX-100×10	2000	100	10	60	100	500	50	25	18
VRX-125×8	2000	125	8	60	125	600	60	30	18
VRX-125×10	2500	125	10	60	125	600	60	30	18
VRX-125×10	3150	125	12	60	125	600	60	30	18



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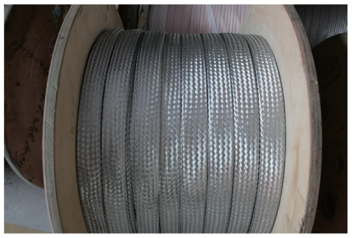
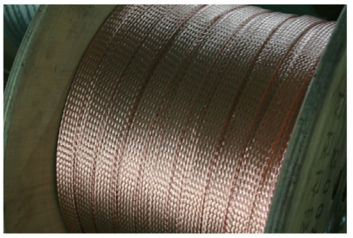
Copper Braided Wire

Braided with high quality copper and strands of tinning wire in both single and multi layers. The square braid includes strands of high quality oxygen-free copper wire. The four corners are circular and there is no interspace in the centre.



Stranded, Braided Wire JB/T6313.2-92

	Section Area (mm^2)	Type	Structure	Single Wire Dia (mm)	Width (< mm)	Thickness (< mm)
1	1.5	TZ	8*98*0.05	0.05	2	2
2	2	TZ	8*67*0.07	0.07	2.1	2.1
3	2.5	TZ	8*159*0.05	0.05	2.5	2.5
4	3.5	TZ	12*150*0.05	0.05	5	1.5
5	6	TZX	24*32*0.1	0.1	7	1.5
6	10	TZX	48*54*0.07	0.07	15.5	1.3
7	15		36*53*0.1	0.1	22	1.5
8	16	tzx	24*38*0.15	0.15	16	1.5
9	17.8		24*95*0.1	0.1	14	3
10	20	TZX	48*53*0.1	0.1	22	2
11	30		24*159*0.1	0.1	17	4
12	40	TZ	48*210*2*0.05	0.05	30	3.5
13	50		48*46*2*0.12	0.12	32	4
14	66	TZ	48*358*0.07	0.07		
15	70		48*28*3*0.15	0.15	31	5
16	85		48*25*4*0.15	0.15	35	7
17	95		24*125*4*0.1	0.1	21.5	10
18	100		48*132*2*0.1	0.1	50	6
19	200		48*176*3*0.1	0.1	60	8
20	200		48*44*3*0.2	0.2	55	10
21	350		48*82*5*0.15	0.15	56	17

Twisted Wire

Item #	Section (mm^2)	Type	Structure	Single Line Dia (mm)	Outside Dia (mm)
1	1.5	Copper	7*3*36*0.05	0.05	
2	2.5	Copper	7*93*0.07	0.07	2.3
3	3.18	Copper	7*4*0.38	0.38	2.6
4	10	Tinned	12*75*0.12	0.12	5.5
5	25	Copper	7*7*66*0.1	0.1	8.1
6	50	Copper	7*7*32*0.2	0.2	10.8
7	70	Tinned	19*29*0.4	0.4	12.5
8	110	Tinned	7*7*72*0.2	0.2	16
9	200	Tinned	19*7*84*0.15	0.15	22
10	135	Tinned	19*56*0.4	0.4	17.5

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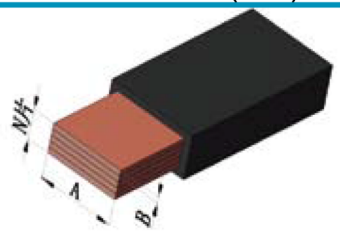
Bus Bars

Type	Dimension (mm)	Section (mm²)	Current Load (A) based on the conductor temperature rise in °C		
	 (Slice Number) x A (Width) x B (Thickness of Single Piece)		40°C	50°C	60°C
V-RMP-3/9	3 × 9 × 0.8	21.6	113	116	131
V-RMP-6/9	6 × 9 × 0.8	43.2	203	226	252
V-RMP-2/20	2 × 20 × 1	40	214	247	276
V-RMP-3/20	3 × 20 × 1	60	270	310	343
V-RMP-4/20	4 × 20 × 1	80	329	376	420
V-RMP-5/20	5 × 20 × 1	100	361	409	448
V-RMP-6/20	6 × 20 × 1	120	401	416	491
V-RMP-8/20	8 × 20 × 1	160	483	554	619
V-RMP-11/20	11 × 20 × 1	240	574	654	738
V-RMP-2/24	2 × 24 × 1	48	251	286	316
V-RMP-3/24	3 × 24 × 1	72	311	360	401
V-RMP-4/24	4 × 24 × 1	96	371	420	471
V-RMP-5/24	5 × 24 × 1	120	418	480	541
V-RMP-6/24	6 × 24 × 1	144	465	539	601
V-RMP-8/24	8 × 24 × 1	192	551	630	703
V-RMP-10/24	10 × 24 × 1	240	629	715	791
V-RMP-3/32	3 × 32 × 1	96	406	463	514
V-RMP-4/32	4 × 32 × 1	128	468	536	591
V-RMP-5/32	5 × 32 × 1	160	531	603	671
V-RMP-6/32	6 × 32 × 1	192	576	669	742
V-RMP-8/32	8 × 32 × 1	256	684	782	874
V-RMP-10/32	10 × 32 × 1	320	774	885	987
V-RMP-4/40	4 × 40 × 1	160	542	603	658
V-RMP-5/40	5 × 40 × 1	200	631	718	803
V-RMP-6/40	6 × 40 × 1	240	691	794	893
V-RMP-8/40	8 × 40 × 1	320	811	917	1031
V-RMP-10/40	10 × 40 × 1	400	910	1032	1158
V-RMP-4/50	4 × 50 × 1	200	642	715	785
V-RMP-5/50	5 × 50 × 1	250	754	865	963
V-RMP-6/50	6 × 50 × 1	300	832	946	1063
V-RMP-8/50	8 × 50 × 1	400	942	1096	1224
V-RMP-10/50	10 × 50 × 1	500	1076	1230	1368
V-RMP-5/63	5 × 63 × 1	315	912	1017	1113
V-RMP-6/63	6 × 63 × 1	378	1004	1143	1265
V-RMP-8/63	8 × 63 × 1	504	1153	1320	1476
V-RMP-10/63	10 × 63 × 1	630	1279	1472	1632
V-RMP-5/80	5 × 80 × 1	400	1038	1166	1276
V-RMP-6/80	6 × 80 × 1	480	1214	1361	1492
V-RMP-8/80	8 × 80 × 1	640	1392	1587	1732
V-RMP-10/80	10 × 80 × 1	800	1536	1763	1929
V-RMP-5/100	5 × 100 × 1	500	1335	1530	1703
V-RMP-6/100	6 × 100 × 1	600	1452	1671	1851
V-RMP-8/100	8 × 100 × 1	800	1607	1803	1981
V-RMP-10/100	10 × 100 × 1	1000	1763	1968	2168

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