EXAMPLES OF USING THE **FLEXICOPPER** BUSBAR

CUTTING

Handled properly, the FLEXICOPPER busbar can be cut by sawing or shearing. In both cases a clean cut is achieved. If the busbar is to be bent, it is recommended to add to the required length an extra 10 mm to compensate any possible slippage of the busbar layers.

BENDING

FLEXICOPPER busbars with small and medium cross-sections can be bent. If busbars with large cross-sections are bent or twisted with a metal instrument, protect the insulation from damage. The minimum bend radius is three times the thickness of the busbar ($r = 3 \times t$).

TWISTING

For twisting, heed the same recommendations as for bending. Ensure when rotating by 90° that the necessary length is equivalent to three times the busbar thickness.

STRIPPING

When stripping the insulation, protect the copper layer from damage and uncover only the area of the busbar that is necessary for a connection. Standard tools or only a knife can be used for stripping.

MENDING LAYERS

When bending the busbar to an acute angle, the separate layers can shift. Before the busbar is ended and a connection created, such inaccuracies must be mended by cutting.

DRILLING/PUNCHING

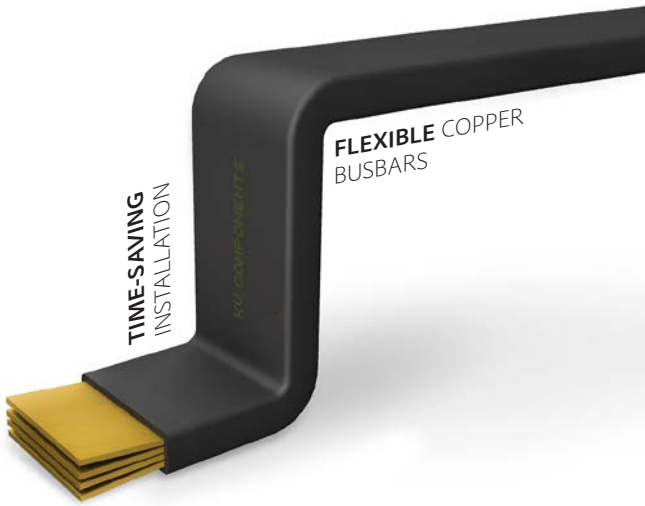
These operations are recommended to be done as the last part of shaping, and only after stripping of the insulation. The best connection is achieved by punching. In the case of drilling, use the adapted drilling gauge that will lead the drill tip correctly and hold the busbar. Observe the rule that the diameter of the drilled hole must not be bigger than half the busbar width.

FIXING THE CONNECTION

According to the used busbar, apply torque suitable for the used screw diameter to avoid excessive deformation and damage of the busbar.

KV components, s.r.o.
Tovární 2157
686 03 Staré Město
Czech Republic
info@kvcomponents.com
tel: +420 773 993 644
www.kvcomponents.com

FLEXICOPPER



KVCOMPONENTS

WHY CHOOSE **FLEXICOPPER** BUSBAR

LOWER WEIGHT AND VOLUME

Thanks to the material used and the manufacturing process, the busbar can be shaped with a minimal bend radius. Compared to other cables designed for the same current load, the cross section of FLEXICOPPER is 40 % lower.

TIME-SAVING INSTALLATION, DESIGN AND EFFICIENCY

The elasticity and great formability of the busbar material allow any connection design. FLEXICOPPER maintains the desired shape, prevents unwanted deformations or memory effect. End connections can be joined only by punching. Therefore, use of cable lugs is not necessary.

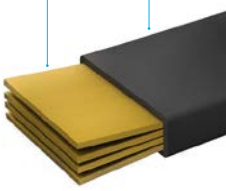
SAFETY AND EMPHASIS ON RELIABLE SOLUTIONS

Designers as well as installers prefer the FLEXICOPPER busbar in view of its key qualities:

- **easy shaping** reduces the number of interconnecting conductors,
- **elimination** of cable lugs,
- **fewer connections** in a project means a reduction in potential risks

TECHNICAL **CHARACTERISTICS** OF THE **FLEXICOPPER** BUSBAR

Insulation: highly resistant **vinyl compound**
Conductor: **electrolytic copper**
Bend: **370 %**
Operating temp.: **105 °C (max)**
Thickness: **2 mm ± 0.2 mm**
Flammability: **UL 94 VO**
Operating voltage: **<3500V~/4000V=**



A	N × A × B (mm)	Cross-section (mm^2)	ΔT (°C) 70	60	50	40	30	Current Coefficient 2 Layers	3 Layers
250 A	2 × 20 × 1	40	327	302	274	246	215	1,72	2,25
	3 × 20 × 1	60	427	395	361	323	281	1,72	2,25
	2 × 24 × 1	48	450	417	380	342	295	170	225
400 A	4 × 20 × 1	80	476	442	401	363	314	1,72	2,25
	5 × 20 × 1	101	498	461	421	376	327	1,72	2,25
	6 × 20 × 1	121	546	506	463	413	358	1,72	2,25
	3 × 24 × 1	72	493	453	413	371	320	1,72	2,25
	4 × 24 × 1	96	551	543	465	416	361	1,72	2,25
	2 × 32 × 1	64	481	445	406	364	315	1,72	2,25
	3 × 32 × 1	96	571	525	483	433	372	1,72	2,25
	2 × 40 × 1	80	538	503	455	404	352	172	225
500 A	5 × 24 × 1	122	610	563	514	461	398	1,72	2,25
	6 × 24 × 1	143	671	621	566	506	438	1,72	2,25
	4 × 32 × 1	129	648	601	548	493	425	1,72	2,25
	3 × 40 × 1	121	617	573	522	466	405	1,72	2,25
	4 × 40 × 1	163	727	673	615	553	476	1,72	2,25
	3 × 50 × 1	152	701	653	592	530	462	172	225
630 A	10 × 20 × 1	202	762	707	645	576	502	1,72	2,25
	8 × 24 × 1	191	802	742	678	607	525	1,72	2,25
	5 × 32 × 1	162	758	702	642	573	496	1,72	2,25
	6 × 32 × 1	192	846	783	715	642	555	1,72	2,25
	5 × 40 × 1	203	902	832	761	682	593	1,72	2,25
	4 × 50 × 1	201	862	795	727	653	563	1,72	2,25
	3 × 63 × 1	189	798	741	675	603	522	1,65	2,12
800 A	10 × 24 × 1	243	948	877	803	716	592	1,72	2,25
	8 × 32 × 1	256	1018	943	863	770	667	1,72	2,25
	6 × 40 × 1	240	1018	943	860	771	667	1,72	2,25
	5 × 50 × 1	252	1102	1016	932	832	718	1,72	2,25
	4 × 63 × 1	252	1012	935	855	763	661	1,65	2,12
	3 × 80 × 1	242	983	906	827	742	641	1,65	2,12
1000 A	10 × 32 × 1	322	1232	1143	1041	933	805	1,72	2,25
	8 × 40 × 1	320	1233	1142	1041	931	805	1,72	2,25
	10 × 40 × 1	402	1403	1295	1182	1055	915	1,72	2,25
	6 × 50 × 1	301	1226	1135	1034	925	802	1,72	2,25
	8 × 50 × 1	401	1393	1292	1175	1053	912	1,72	2,25
	5 × 63 × 1	315	1221	1125	1032	923	797	1,65	2,12
	6 × 63 × 1	378	1439	1333	1217	1085	941	1,65	2,12
	4 × 80 × 1	324	1203	1112	1015	906	785	1,65	2,12
	5 × 80 × 1	403	1392	1285	1175	1051	910	1,65	2,12
	4 × 100 × 1	401	1446	1342	1225	1094	947	1,6	2,02
1250 A	10 × 50 × 1	504	1654	1525	1393	1245	1082	1,72	2,25
	8 × 63 × 1	504	1652	1525	1396	1245	1085	1,65	2,12
	6 × 80 × 1	480	1626	1505	1374	1237	1065	1,65	2,12
	5 × 100 × 1	501	1635	1517	1385	1235	1075	1,6	2,02
	6 × 100 × 1	601	1843	1705	1551	1394	1205	1,6	2,02
1600 A	10 × 63 × 1	631	1895	1755	1602	1435	1242	1,65	2,12
	8 × 80 × 1	642	1895	1755	1603	1434	1244	1,65	2,12
	10 × 80 × 1	800	2105	1945	1774	1585	1377	1,65	2,12
	8 × 100 × 1	800	2147	1995	1815	1627	1404	1,6	2,02
	10 × 100 × 1	1002	2352	2174	1985	1774	1535	1,6	2,02
	12 × 100 × 1	1200	2503	2315	2115	1894	1636	1,6	2,02
	10 × 120 × 1	1200	2755	2553	2332	2071	1794	1,49	1,95

Permissible current: This table demonstrates the reference increase in temperature at the chosen current load for a given cross-section of a busbar. Possible increase in temperature inside the distribution board is not taken into account, so use the current coefficient for the calculation when wired in parallel.