



NKT

Innovative bi-metal technology

Busbar systems with
Cu/Al conductor

nkt.com

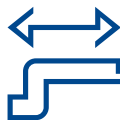
Your requirements. Our solutions.

The principle of the busbar system with bi-metal technology in short: In insulated, shielded busbar systems for expandable medium-voltage switchgear, we use conductors made of a copper-aluminium combination.

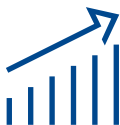
The core of the bi-metal conductor consists of electrically high-quality aluminium with a seamless outer layer of highly conductive copper. The two components are molecularly bonded using a special manufacturing process with high measuring accuracy. As with all cable assemblies from NKT, the two busbar systems, 24 kV 630/800 A and 1250 A Cu/Al and 36 kV 630/800 A Cu/Al, are characterised by a high degree of safety, quality, durability and reliability. This means the risk of failure is minimised, bringing down maintenance and repair costs.



Weight saving
compared to pure
copper systems



Easier handling
due to
lower weight



Resource-saving
technology due to
lower copper content



Cost-effective
alternative to conventional
copper systems

We focus on bringing powerful innovations to your switchgear – always looking for ways to make good things even better. The new busbar systems 24 kV 800 A and 1250 A Cu/Al and 36 kV 800 A Cu/Al have a copper-sheathed aluminium conductor. As a result, they are more resource friendly, lighter and cost-effective than conventional busbars made of pure copper. This strongly supports our claim to be the quality leader in the design-to-cost product segment.



The new busbar system from NKT consist of an aluminium core coated by a copper surface. This technology reduces the weight by over 50 % compared to a conventional copper conductor, which makes handling much easier.

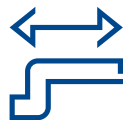
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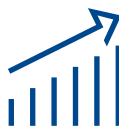
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Weight saving compared to pure copper systems



Easier handling due to lower weight



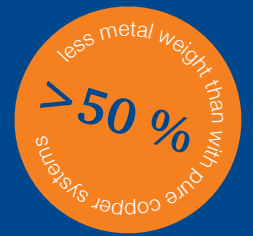
Resource-saving technology due to lower copper content



Cost-effective alternative to conventional copper systems

At a glance

Technical data of our Cu/Al busbar systems



	24 kV Cu/Al	36 kV Cu/Al
System voltage	up to 24 kV	up to 36 kV
Rated current	up to 1250 A	up to 630/800 A
Material of the bar	Copper-aluminium combination	Copper-aluminium combination
Insulation	Silicone insulation, shielded	Silicone insulation, shielded
Diameter of the conductor	35 mm (1250 A) 32 mm (630/800 A)	32 mm (630/800 A)
Identification	Different colours of silicone insulation for better identification of 630/800 A (dark grey) and 1250 A (light grey)	

Direct coupling of cable connector



Direct coupling of surge arrester



Adapter sets for the 24/36 Cu/Al system from NKT

- Various end and cross adapter sets for 630/800 A and 1250 A applications available
- Full compatibility with NKT connectors, surge arresters and voltage transformer adapters
- Contact half-shell made of copper with silver coating for higher contact temperatures, tested in accordance with EN60694
- Same busbar lengths as Ø 32 Cu system