

Auxiliary Power Converter BNU 600

COMPACT AND POWERFUL ON-BOARD POWER SUPPLY FOR
PUBLIC TRANSPORT VEHICLES



Technical Description

The name BNU 600 stands for the 6th generation of the Kiepe auxiliary power unit platform which has been further developed for over 35 years.

The converters are based on the cost-effective IGBT technology. Together with the patented circuit solutions and modern control technology, a power density and efficiency is achieved, which is comparable to the silicon carbide auxiliary power units currently available on the market for rail-

way applications.

Modular design together with reduced module dimensions and high efficiency makes the BNU 600 especially attractive for retrofit projects.

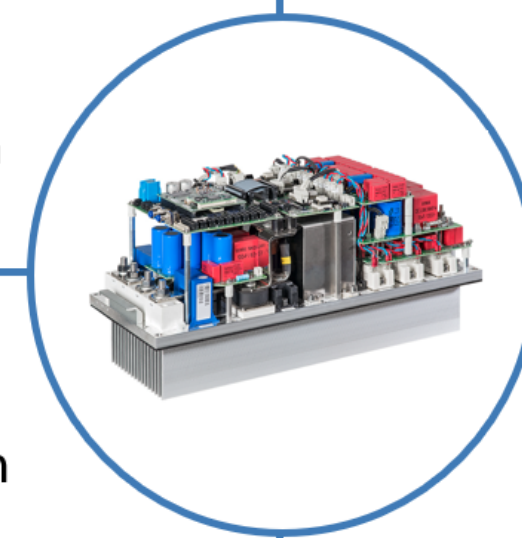
Both the complete device and the individual inverter modules can be exchanged within the existing device container.

Highlights

- High power density comparable to current SiC-converters due to patented circuit concept
- Parallel operation on 3AC-busbar possible
- Fully loadable neutral conductor
- Self-start from catenary with totally discharged battery
- Fulfills EMC requirements for rail
- Modular system with independent 3AC and DC power modules ideal for new and also retrofit projects

Overview of BNU 600 inverter modules

3AC 56 kVA
500 mm x 300 mm

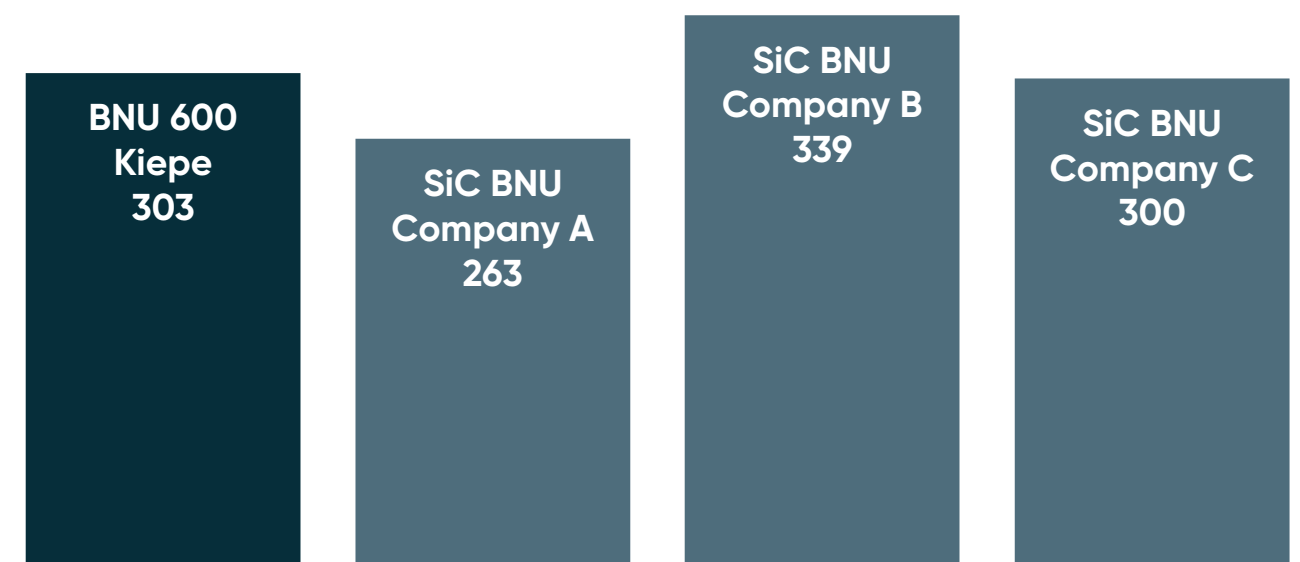


24 VDC 500 A
500 mm x 300 mm

3AC 35 kVA
500 mm x 200 mm

24 VDC 330 A
500 mm x 200 mm

Power Density Compared to SiC Solutions [W/kg]



Technical Data

Electrical Data

Catenary voltage	DC 400 to 1000 V
3AC Output	56 kVA, 3/N AC 400 V/230 V (max. 480 V/277 V)
DC Output	500 A, 24 V
Output current	25 A/40 A

Communication and Control

Communication	CAN / Ethernet (Diagnostic)
Control	DC 24 V

Mechanical Data

Dimensionen (L x W x H)	1262 mm x 770 mm x 437 mm
Weight	211 kg
Protection class	IP 55
Cooling	Forced air cooling
Ambient temperature	-40 °C to +50 °C

Other

Overvoltage protection	EN 50124-2
EMC	EN 50121-3-2 / UN ECE R10
Fire protection	EN 45545

