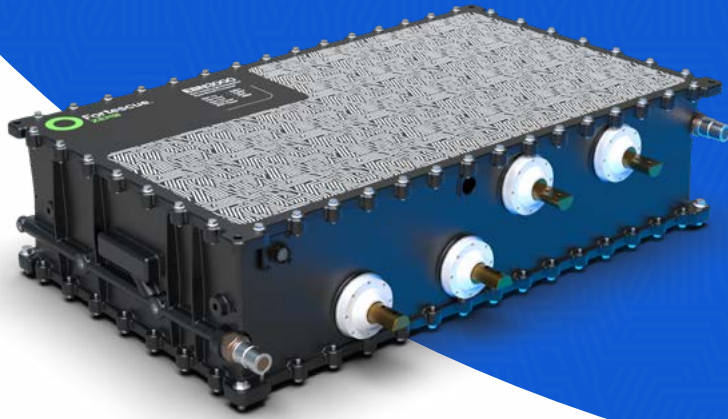


EBN3000

3MW Bi-Directional DCDC

200 – 2500 V



Overview

EBN3000 is a cutting-edge product from Fortescue Zero targeting high voltage DC power systems, up to 2.5 kV, enabling solutions to remove power supply bottlenecks across the energy ecosystem.

The EBN3000 is a buck-boost, non-isolated, bi-directional DCDC converter with a maximum power up to 4.5 MW and operating at 200 – 2500 V.

The EBN3000 has a comprehensive set of connectivity options, simple control and integration, monitoring and protection features.

Technology developed in-house enables DCDC solutions with ultra high-power density and class leading efficiency. Targeted applications include dynamic systems, leveraging our high-power density, and static systems which benefit from >99% efficiency.

Technical Specifications

Buck-boost, non-isolated, bi-directional
Symmetrical input and output characteristics
4 quadrant operation
Voltage Range: 200 – 2500 V
Maximum Current: 3000 A
Maximum Power: Up to 4.5 MW continuous
Efficiency: > 99%
Coolant: Water glycol mix
Maximum Coolant Inlet Temperature: 35°C #1
Transient Suppression: 2.6 kV
Mass: < 500 kg
IP Rating: IP67
LV Supply: 24 V
LV Connector: TE Connectivity M3472W22-41P

#1 For full power operation

Typical Applications

- Fast Charging
- Battery Power Systems
- Hydrogen Power Systems
- Fuel Cells
- Grid Applications Including Microgrids

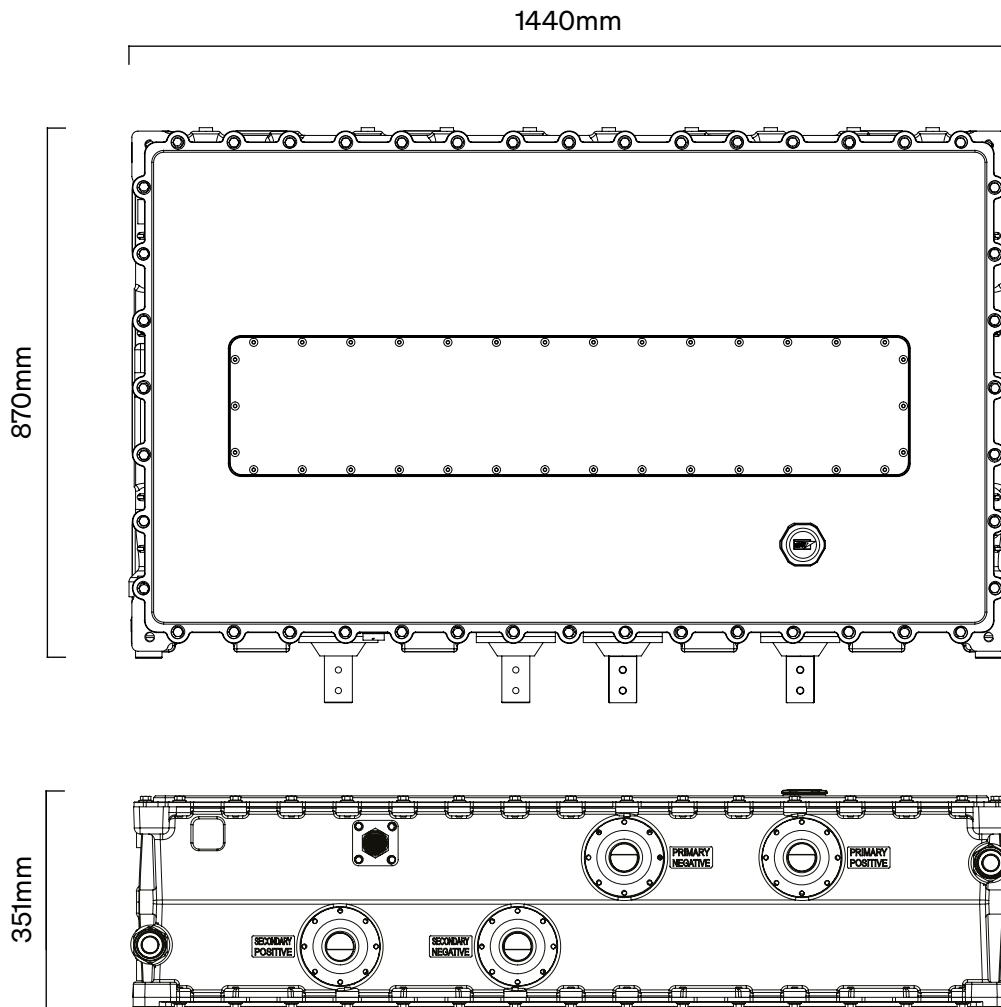
Key Features

- 2.5 kV Operation
- 4.5 MW Continuous Power
- -20°C to 60°C Ambient Operation
- Output overcurrent protection
- Patented high-speed de-sat protection
- Zero voltage self-test mode
- Power module health monitoring
- Smart thermal derate
- Enhanced thermal monitoring
- CANBus control
- Software flash via CANBus / XCP
- High-speed diagnostics via Ethernet / XCP
- Voltage, current and power control

Standards Compliance

- ISO 13766-1 (2018)
- ISO 13766-2 (2018)
- EN 50124-1 (2017)
- ISO 14990-1 (2016)
- ISO 14990-3 (2016)
- ISO 15818 (2017)

Mechanical Details



Part Number Information

Description	Part Number
EBN3000	993UN00012A99

The contents of this product specification document are for general information purposes only as all items can be tailored to suit individual needs. Please contact us for more information. technology@wae.com