

HV/HV bi-directional DC/DC converter

General description

The Buck / Boost Converter enables users to specify a DC bus voltage from a battery to a specific level, independent of operating load, temperature and State Of Charge (SOC). It allows the use of two independent DC power sources (e.g. fuel cell and high voltage battery) to be used in a traction application with one or more inverters on a common DC bus.

Highlights

- › 83 kW Peak Boost/Buck
- › 50 kW Continuous Boost/Buck
- › Peak Efficiency > 97.5%
- › ISO26262 ASIL-C Capable

Features

- › Pre-charge functionality
- › Self-protection via derating, integrated diagnostics
- › Digital voltage and current control

Application details

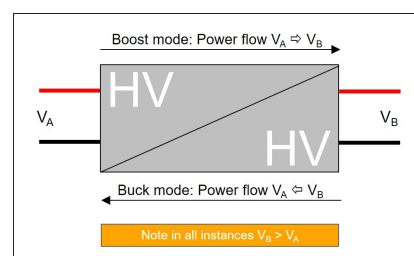
- › Ambient Temperature: -40 °C to + 85 °C
- › Communication Interface: CAN
- › Mass: < 10 kg
- › Dimensions: L 310 mm x W 240 mm x H 210 mm
- › Thermal: 6.5 lpm @ 85 °C Water/Glycol

Boost Mode

- › Input Voltage Range (V_A) = 180 V to V_B
- › Output Voltage Range (V_B) = V_A to 820 V
- › Peak Output Current: 240 A for 30 s
- › Continuous Current: 125 A

Buck Mode

- › Input Voltage Range (V_B) = V_A to 820 V
- › Output Voltage Range (V_A) = 180 V to V_B
- › Peak Output Current: 240 A for 30 s
- › Continuous Current: 125 A



*customers specific adaptations possible / SIC version available

