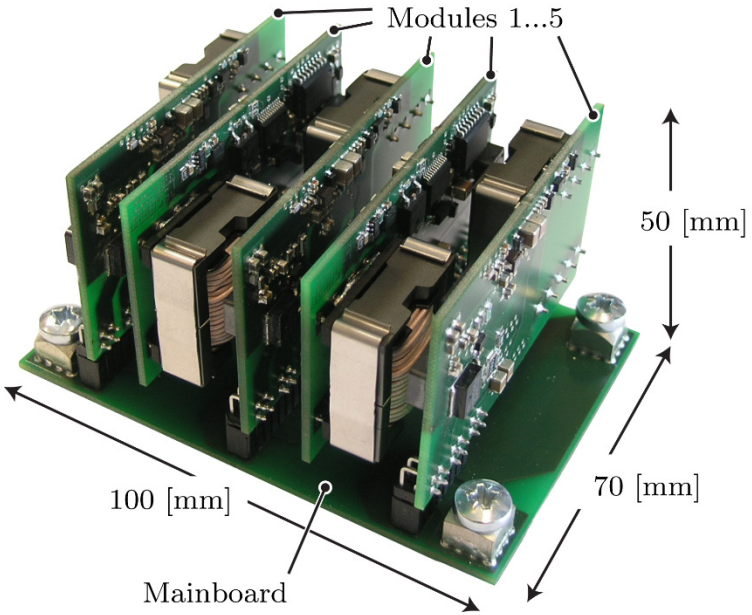
“Rainstick” DC/DC converter with High Voltage Conversion Ratio

(for auxiliary supplies operating from high input voltages)



Features

- High Voltage Conversion Ratio
- Wide Input Voltage Range
- Simple and fully Modular Structure
  - Number of Modules can be selected depending on Input Voltage Range
- High Reliability
- Low Costs
- Zero Voltage Switching (ZVS)
- No Control needed
- No Communication needed
- Each Module contains a Self-Powered Auxiliary Supply for the Electronics (Patent pending)

Further Information:

M. Kasper, D. Bortis and J.W. Kolar, “Novel High Voltage Convertion Ratio “Rainstick“ DC/DC converter“, Proceedings of the IEEE Energy Conversion Congress & Exposition, ECCE 2013, Denver.

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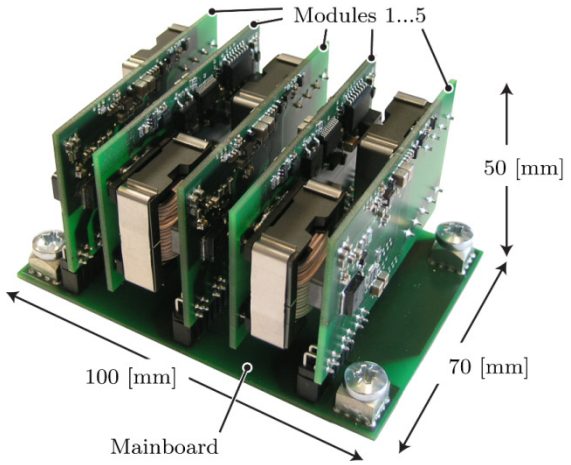
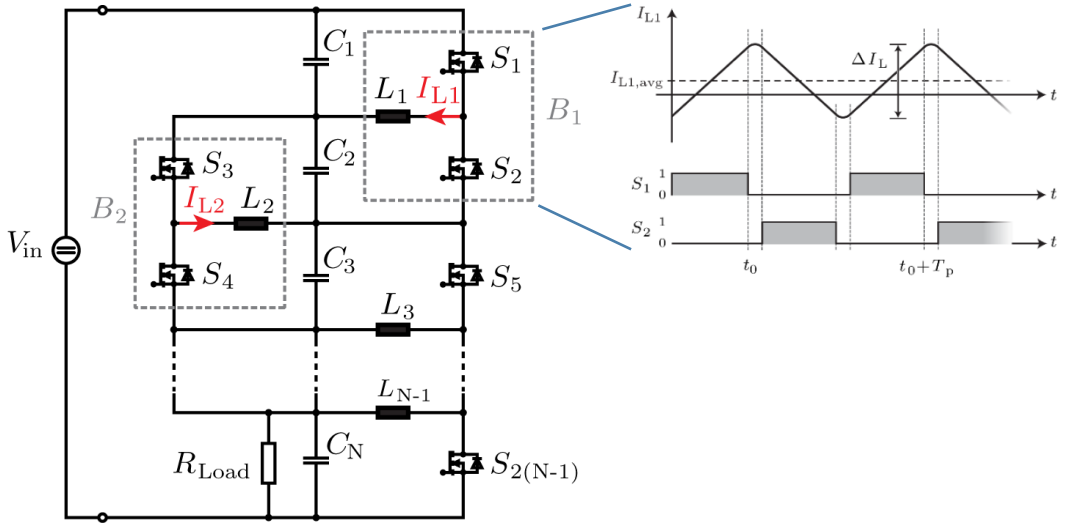
“Rainstick” DC/DC converter with High Voltage Conversion Ratio

(for auxiliary supplies operating from high input voltages)

Specifications

- **Power Range:** 0W ... 30W
- **Nominal Input Voltage:** 150V ... 2.4kV (with 5 Modules)
- **Output Voltage :** e.g. 24V with subsequent DC/DC





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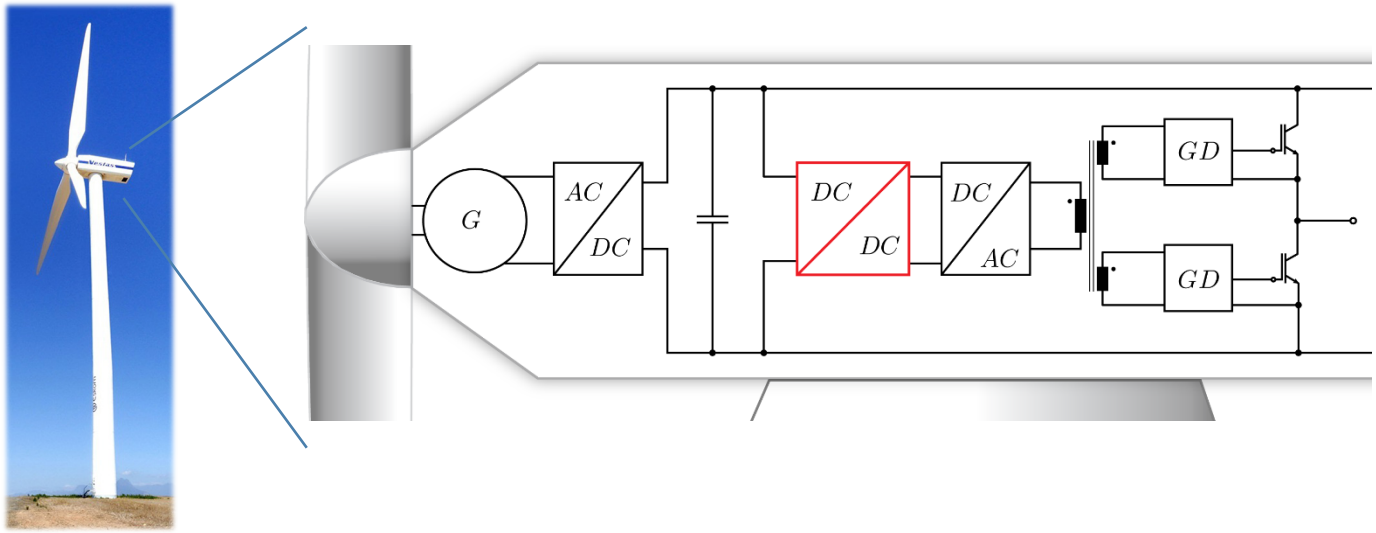
(for auxiliary supplies operating from high input voltages)

Typical Application

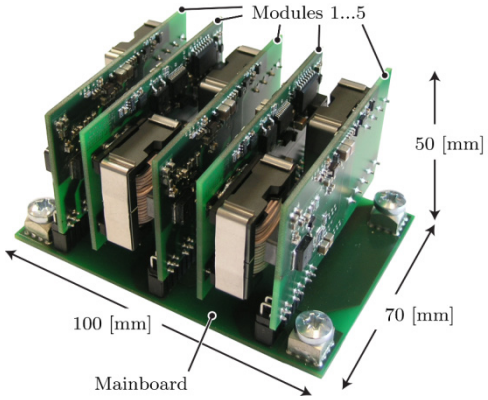
- **Supply for the Auxiliary Electronics in Medium Voltage Applications**



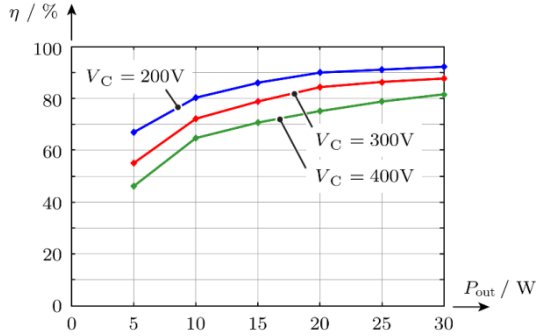
“Rainstick” DC/DC converter with High Voltage Conversion Ratio

(for auxiliary supplies operating from high input voltages)

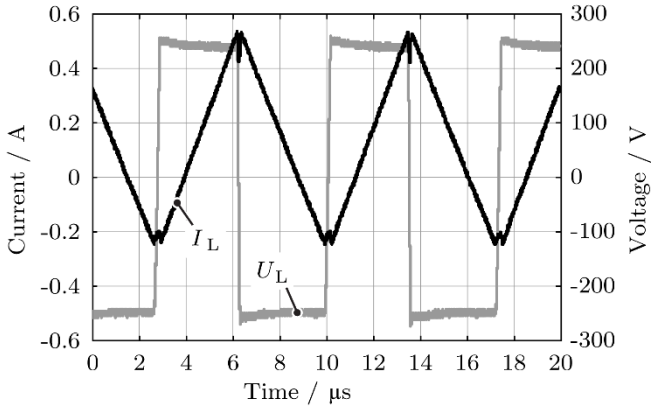
Electrical Measurement



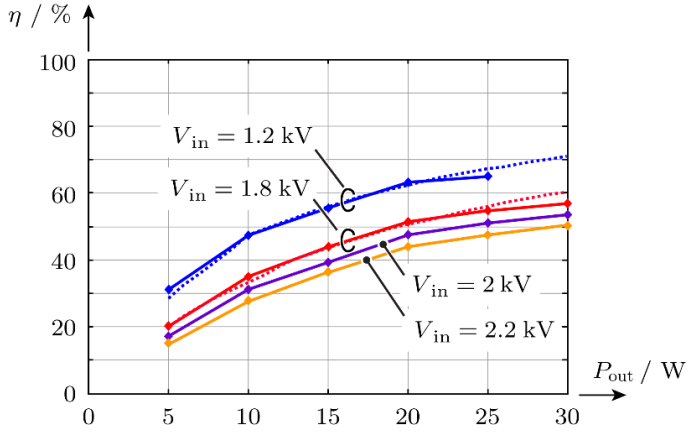
- **Efficiency (single Module)**



- **Inductor Current with ZVS**



- **Efficiency (System with 5 Modules)**



MORE EXAMPLES
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