

Fact sheet | VACON® NXP DC/DC Converter

Feed the **DC grid** with **DC power**



Use the VACON® Select tool to select the optimal components for the application. The output of the tool comprises:

- Recommended VACON® NXP DC/DC Converter
- Recommended filter
- Recommended fuses
- Efficiency calculation
- Drawings
- Report

High power energy storage for DC grids

- Energy storage in wind, solar and grid support applications
- Load stability for fuel cells
- Electrification of the marine sector
- Industrial DC backup
- Data centers
- Emulation of DC load

Use the the VACON® NXP DC/DC Converter as a powerful tool in industrial DC backup, DC grid enablement and in increasing the power range of AC or DC energy storage systems - for distributed grids, isolated grids, or in industry.

Connect to DC sources

The VACON® NXP DC/DC Converter allows common DC bus systems or individual drives to connect their DC bus to alternate DC sources such as batteries or super capacitors to create hybrid systems.

The energy can flow bi-directionally, either from DC energy source to DC link or from DC link to energy source. By doing this, DC energy sources are utilized to back up the power supply of the system.

DC-grid

enabler

Features and benefits of the Danfoss hybrid solutions

Feature	Benefit
Wide power range	Reduce variants – solutions are available for applications in a kW to MW range
Modular solution	Based on the VACON® NXP platform power modules, the DC bus system can be easily configured
Wide voltage range	Increase flexibility – Ability to integrate a wide variety of common battery bank voltages using a DC/DC converter
Flexibility	Easy to upgrade – The simple-to-extend VACON® NXP platform provides great system flexibility with a low additional investment
Scalability	Solutions can be scaled up to meet future energy requirements in terms of new energy sources, additional storage or to meet increasing demand
Serviceability	Lower investments – Utilizing the same VACON® NXP hardware configurations, service teams require little to no additional training
Industry and application knowledge	Made to last – Liquid- and air-cooled solutions based on in-depth application knowledge for the most demanding industries
Open approach	Faster Go-To-Market – Wide range of applications made available as foundation for building tailored solutions
One stop shop	Reduce procurement costs – Air- and liquid-cooled drives, AFE, NFE, DC/DC, Grid Converter, DC modules and components are available from one source
Partnership	Stronger together – System integrators collaborate with a vendor who has a vested interest in their success

Specifications

The VACON® NXP DC/ DC Converter includes a specific licensed firmware to provide DC power conversion, based on any of the air-cooled or liquid-cooled VACON® NXP inverter modules, plus filters.

VACON® NXP DC/DC Converter specifications				Example: Power range is based on DC-Link and source voltage within range listed		
Technology	Enclosure size	DC-link udc voltage [V]	Source voltage [V]	Power range [kW]	DC-link udc voltage [V]	Source voltage [V]
Air cooled	FR4-FR14	465-800	5-95% of udc	up to 1500	750	300-700
	FR6-FR14	640-1100		up to 2000	1050	500-1000
Liquid cooled	CH3-2xCH64	465-800		up to 2100	750	300-700
	CH61-2xCH64	640-1100		up to 4100	1050	500-1000

Application examples for AC and DC grids

