VENSYS
Elektrotechnik

TECHNICAL DATA

VENCON Hybrid

The All-rounder among the Converters

Hybrid converter

The central unit for a versatile island grid with a wide range of energy sources.

- **Modular:** Expandability in steps of 150 kW means total power can be reached for all sizes, with several systems being linked via the DC connection.
- **Versatile:** Up to six completely different DC sources with up to 120 kW output can be operated in a broad voltage range.
- **Unbalanced load capability:** Due to sufficient intermediate circuit capacity, the converter provides an unbalanced load capability of 100 %.
- **Backup capability:** The integration of diesel generators as well as wind and water power plants is possible without restrictions.
- **Easy to maintain:** The modular design, air cooling and the ability to control the system remotely (Web Interface) make sure VENCON requires only a minimum amount of maintenance.
- **Flexible:** Thanks to its compact design VENCON is suitable for use in any location.

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VENSYS HYBRID CONVERTER

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SYSTEM COMPONENT

CONTROL CABINET WITH 3 POWER MODULES

Dimensions	1208 x 608 x 2202 (height) mm
Weight	< 950 kg
Indoor housing	IP20
Temperature range, operation	–20 to +40 °C
Cable entry	at the bottom
Cooling	Air Cooling
Place of installation	< 2000 m
Humidity	< 95% non-condensing

POWER MODULES

Three power modules can be housed in each VENCON. Individual DC or AC configuration for each module. For optimal operation, VENCON is equipped with two DC and one AC power module. The use of one AC input module means that diesel generators or wind power plants can also be integrated into the system.

OPERATION AS AN AC POWER MODULE BI-DIRECTIONAL

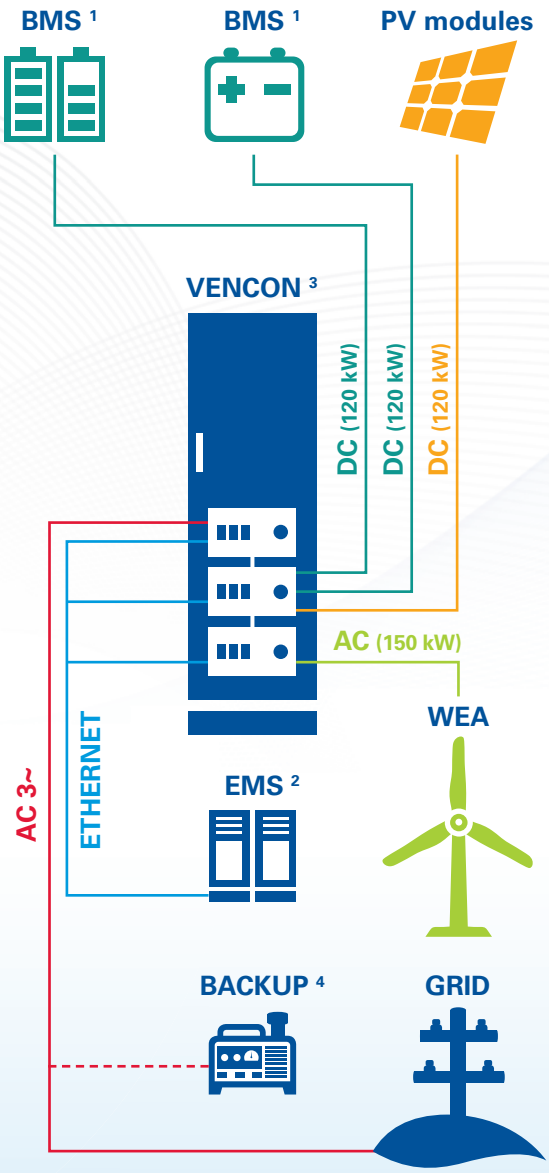
Rated voltage	400 V
Mains frequency	50 or 60 Hz
Switching frequency	4 kHz
Nominal power	150 kW
Unbalanced load capability	100%

OPERATION AS A DC POWER MODULE 3 INPUTS EACH

Voltage/operating range	100 V – 720 V DC
Rated voltage	600 V DC
Max. input voltage Battery	720 V DC (operation)
Max. open circuit voltage PV	850 V DC
Switching frequency	4 kHz
Nominal power	120 kW *

*at a rated voltage of 600 V

CIRCUIT DIAGRAM



EMS = Energy Management System
BMS = Battery Management System

1) User-defined BMS communication via EMS
2) Open VENSYS EMS technology
3) DC parallel connection possible with any number of devices
4) Diesel generator as a backup

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