

# VENCON Battery

The All-rounder among  
the Converters

## Battery converter Bi-directional

Specially engineered for peak shaving, optimization of internal consumption, emergency power, Microgrid and much more.

- ▼ **Modular:** Expandability in steps of 150 kW means total power can be reached for all sizes, with several systems being linked via a DC bus.
- ▼ **Versatile:** Up to three completely different DC sources with 120 kW output each can be operated in a broad voltage range.
- ▼ **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.



**VENCON**

VENSYS HYBRID CONVERTER



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VENSYS HYBRID CONVERTER



## SYSTEM COMPONENT

### CONTROL CABINET WITH 3 POWER MODULES

Dimensions	1213 x 656 x 2351 (height) mm
Weight	< 980 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 one DC\* and two AC\*\* power modules.

\* DC power module 3 x 120 kW | \*\* AC power module 1 x 150 kW

### OPERATION AS AN AC POWER MODULE

#### bi-directional and grid-synchronized

Rated voltage	400 V
Mains frequency	50 or 60 Hz
Switching frequency	4 kHz
Nominal power	300 kW (2x150 kW)
Power factor	0,9 cap to 0,9 ind
Mains protection	U<<, U<, U>, U>>, f<, f>

(performance figures based on the use of two AC power modules)

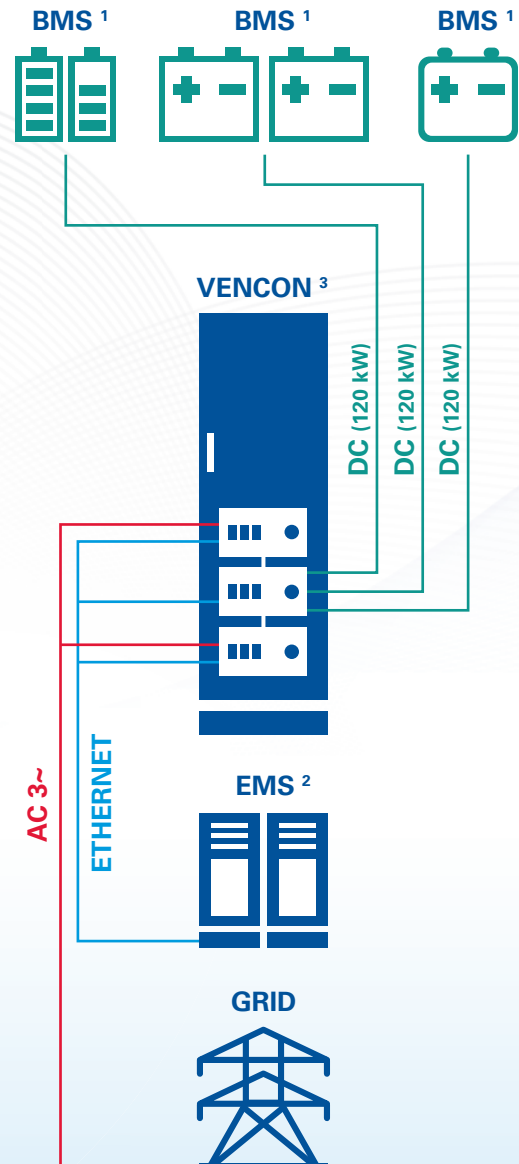
### OPERATION AS A DC POWER MODULE

#### DC/DC converter and bi-directional

Voltage/operating range	100 V – 720 V DC
Rated voltage	600 V DC
Maximum input voltage	720 V DC (operation)
Switching frequency	4 kHz
Rated power	3 x 120 kW *
Number of DC inputs	3

\*at a rated voltage of 600V

## 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