

## Outdoor Cabinet

# H<sub>3</sub> Compact



- Methanol fuel cell solution
  - 5 kW - 48V DC
- No preventive maintenance
  - 200 L fuel capacity
- Climate independent operation
- Simple installation and refueling

**H3 Outdoor cabinet - Compact.** The cabinet offers a complete power supply solution incorporating one of the H3-series of reformed methanol fuel cell (RMFC) systems and auxiliaries such as; fuel tank and power distribution.

**Methanol hybrid systems.** The RMFC system works in parallel with an onsite external battery pack existing on site or installed with the system. The embedded charge controller enables regulated DC power for all applications and battery types. The RMFC features catalytic startup enabling fast startup and minimum power consumption in standby and during the startup process.

**Methanol fueled.** High temperature PEM with an integrated methanol reformer for onsite hydrogen generation enables high power density and high fuel energy density. The fuel is a methanol and water mix available through several global and local suppliers. The integration of fuel cell and reformer enables a highly energy efficient system due to reuse of fuel cell waste heat for the reformation process.

**Multiple applications.** The Methanol power system has multiple applications both off- or on-grid including application in critical backup power, supplemental power or continuous power.

# Specifications

## Performance characteristics

Module	H3 5000		
Power output, electrical [kW]	5		
Runtime (100% load)	2 days		
IP-rating	54		

## Operational characteristics

Fuel mix	60% vol methanol /40% vol deionized water		
Load	50%	75%	100%
Fuel consumption [L/kWh]	0,8	0,85	0,9
Voltage output [ $V_{DC}$ ]	48		
Ambient temperature [°C]	-20 to 50		
Communications	AUX in/out, UDP/LAN, HTML5		
Optional	Remote wireless access, H3 User Display Kit		

## Fuel characteristics

Fuel tank capacity [L]	200		
Fuel mix	60% vol methanol /40% vol deionized water		
Fuel energy capacity [kWh]	180		

## Mechanical characteristics

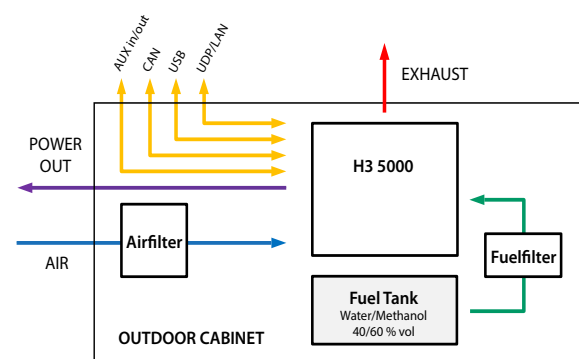
Material	Power coated steel		
W x D x H [mm] <sup>1</sup>	660 x 1195 x 1360 (650 x 960 x 1300) <sup>1</sup>		
Footprint - W x D [mm]	950 x 650		
Weight - shipped <sup>2</sup> /operation [kg]	192/ 480		
Volume [L]	811		
Filter type	Z-line - M5 (400 x 300 x 96mm)		

<sup>1</sup> Excl. lifting eyes and front/rear canopy

<sup>2</sup> Excl. fuel, FC modules (shipped separately)

The Outdoor Cabinet design is available in custom configurations including: Fuel cell system, battery system, optional external fuel tank, rectifier plant and DC distribution. Serenergy also offers support in form of solution engineering and methanol fuel supply.

Please contact us at [sales@serenergy.com](mailto:sales@serenergy.com) for more information, pricing and availability. Serenergy A/S reserves the right to change specifications and descriptions without notice.



System diagram



Front view



Rear view