

H₃ 2500/5000



- 5 or 2,5 kW power output
- World-leading efficiency +45%
- No preventive maintenance
- Extended runtime operation
- Simple installation and autonomous operation

Methanol hybrid systems. The Reformed Methanol Fuel Cell 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 mix fuel readily available through several global 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, temporary power or continuous power.

Simple Retrofit integration. Based on a simple rack mounted design the system can be integrated in existing infrastructure or in generic generator cabinets as well as vehicles and other special applications. The system is ideal for Rooftop sites or other challenging installations as no cranes or special equipment is needed. The unit can be transported and mounted with simple equipment by typical technicians in less than one hour.

Specifications

Electrical characteristics

Parameter	H3 2500	H3 5000
Cells	65	120
Power output [W]	2500	5000
Voltage output [V _{DC}]	LV: 48 (or HV: 350-400)	
Turn down [%]	0-100	

Operation

Parameter	H3 2500	H3 5000
Fuel mix	60% vol methanol 40% vol deionized water	
Fuel consumption [L/kWh]	0,8-0,9	
Ambient temperature [°C]	-20 to 50	
Installation temperature [°C]	0 to 40	

Mechanical characteristics

Parameter	H3 2500	H3 5000
Height - [mm] / Rack Units [U]	266 / 6U	
Width [in]	19" Rack size	
Length ¹ [mm]	702	
Weight [Kg]	65	75
Volume [L]	81	

¹ Length excluding connectors on front and exhaust pipes on rear

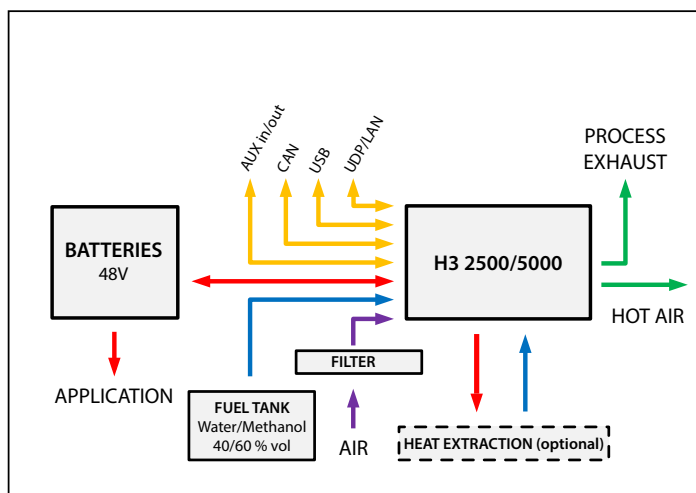


Customised. The stack/module design is also available in custom sizing from 40 to 120 cells, so if there is a specific power demand the basic concept is easy to scale on a technology level. Furthermore larger systems are available for higher power ranges.

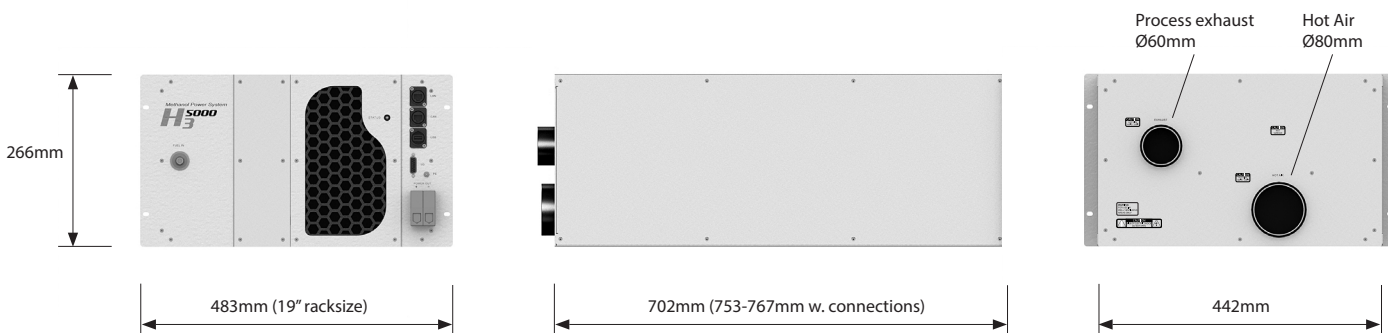
Serenergy also offers support in form of application engineering and a complete system design to ensure performance and simplicity is maintained throughout the product development process.

Please contact us at sales@serenergy.com for more information, pricing and availability.

Serenergy A/S reserves the right to change specifications and descriptions without notice



H3 5000 system diagram



Top: Front view of 48V-version. Views below: 48V-version (same dimensions for all versions)