



- World-leading efficiency
- Low noise and vibrations
- Flexible installation indoor and outdoor
- Simple installation and autonomous operation
- Zero harmful emissions (NO_x, SO_x or particles)
- Remote monitoring and remote software update

Reformed methanol hybrid systems. The Reformed Methanol Fuel Cell (RMFC) works in parallel with an external battery pack existing on-site or installed with the system. The embedded charge controller enables regulated DC power for different applications and battery types. The RMFC features catalytic startup enabling a minimum power consumption in standby and during the startup process.

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

Multiple applications. The RMFC has multiple applications within three main segments: Stationary, Mobility and Marine. Stationary; backup and supplemental power for telecommunication and off-grid generator replacement. Mobility; Range extender for hybrid electric vehicle in high utilization scenarios. Marine; Auxiliary generators for larger vessels and propulsion for small ships.

Specifications

Electrical characteristics

Parameter	H3 5000	
Max Power Output ₁ [kW]	5	
Nominal Output [kW]	3.75	
Voltage input [Vdc]	36 - 58	-
Voltage input [VAC]	-	230
Voltage output [Vdc]	42 - 58	-
	-	375
	-	560
Turn down [%]	0-100	

Operational characteristics

Parameter	H3 5000
Fuel mix	60% vol methanol 40% vol deionized water
Fuel consumption ₂ [L/kWh]	0.85
Net electric efficiency ₂ [%]	42
Ambient temperature [°C]	-20 to 50
Installation temperature ₃ [°C]	-40 to 50
Communications	AUX, LAN (HTTP/SNMP), CAN

Mechanical characteristics

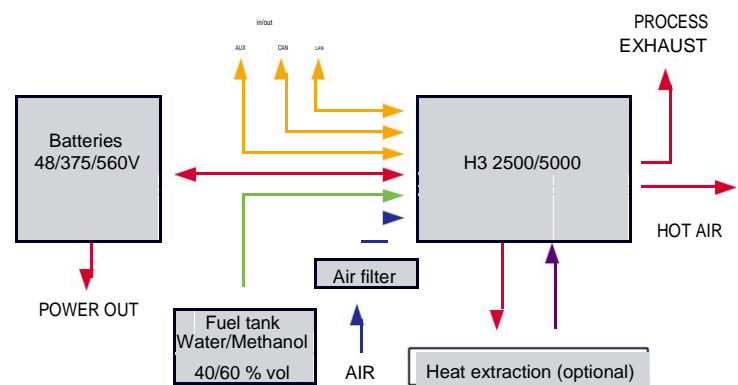
Parameter	H3 5000
Height [mm] / Rack Units [U]	267 / 6U
Width [in]	19" Rack size
Length ₄ [mm]	702
Weight [Kg]	65
Volume [L]	83

- 1 Peak power at beginning of life.
- 2 At Beginning of life and at optimal load.
- 3 Sub-zero temperature possible with added heater solution.
- 4 Length excluding handles, connectors on front and exhaust pipes on rear.

More SerEnergy fuel cell modules can be used in a system for obtaining higher power ranges as demanded by application. SerEnergy offers complete system engineering and support to ensure performance while simplicity is maintained.

Write to 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

