

PM Module

Fuel Cell System ready for OEM integration



Typical application areas

- Emergency power supply
 - Railway infrastructure
 - Telecom / Radio Stations
 - Securing critical infrastructure
 - Industry and Data Centres
- Applications in combination with energy storage
 - Energy autonomous residential and industrial complexes
 - Re-electrification of hydrogen produced from renewables
- Off-grid power supply (Insular Solutions)
- Grid integrated solutions for emergency power or grid support

Main benefits

- Emissions-free solution for generating electrical and thermal energy from hydrogen
- Very high efficiency and reliability
- Long life span
- Easy installation and service
- All-purpose
- Low maintenance / low maintenance costs
- Modularly scalable
- Parallel operation of several modules
- High operational safety
- Online monitoring
- Water cooling / use of process heat
- Simple hybridization with batteries
- Universal 19" rack for easy installation and service
- Adaption to system voltage levels (optionally available)
- Plug & Play

PM Module Type	S4*	S8
Electrical Output		
Power Range** [kW]	0.8-4.1	1.6-8.4
Current Range [A]	0-150	0-150
Voltage Range [V DC]	28-55	56-110
El. System Efficiency [%]	< 56	< 57
Hydrogen Interface		
Hydrogen Quality	ISO 14687-2 / SAE J2719	
H2 Supply Pressure [bar _g]	1.5-7.5	
Hydrogen Consumption (max) [kg/h]	0.28	0.55
Dimensions		
LxWxH [mm x mm x mm]	785 x 465 x 308	785 x 465 x 308
Volume [l]	112	112
Tare weight [kg]	74	79

* Availability expected Q1/2023
 ** BoL, w/o BoP

Specifications are subject to change without notice. Specifications and descriptions in this document were in effect at the time of publication. Proton Motor Fuel Cell GmbH reserves the right to changes at any time.

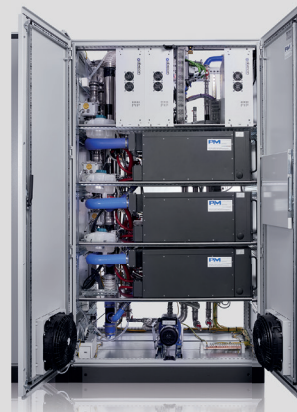
Environmental Conditions	
Ambient Temperature [°C]	+5 to +40
Operating Altitude* [m]	< 2,000
Humidity ** [% r.H.]	< 95
Others	
Conformity	CE, DIN EN 62282-2-100
Protection Class	IP21
Communication Interface	CAN v2.0A

* without de-rating
 ** non condensing

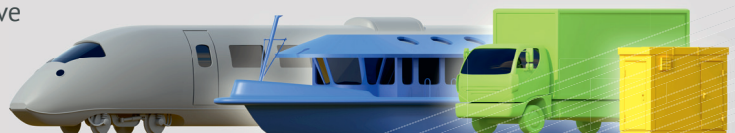


PM Module S4/S8 – the modular and all-purpose fuel cell system for stationary applications

The heart of the Proton Motor technology is the stack module, which is adapted to the power range. It is specially developed and manufactured by Proton Motor. In addition to the stack module, the fuel cell system already contains supply units for hydrogen and reaction air and a primary cooling circuit. The fuel cell system has a modular structure and can be interconnected to achieve higher performance. It is flexible and adaptable to multiple applications as well as reliable and predictable thanks to PM's all-round services. Individual customer applications and exclusive system requests can be fulfilled.



Examples of stationary applications equipped with the PM Module S4/S8



Proton Motor Fuel Cell GmbH
 Benzstraße 7
 D-82178 Puchheim
 Germany

Phone +49 (0) 89 1276265-11
 Fax +49 (0) 89 1276265-99
 email sales@proton-motor.de
 Web www.proton-motor.de

Stationary

Automotive

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Rail