Fuel Cells · Power Systems

Proton Motor
Fuel Cell Stacks and Systems

Cleantech Competence

20 Years
Made in Germany

DATA SHEET

Stationary

PM Modules PM 200 / PM 400

Modular and universal Fuel Cell Systems

Package Components

H_2

Air

PM Stack Module inside
2–16 / 15–75

Electricity

Cooling

Controls

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
- Flexible use
- Low maintenance / low maintenance costs
- 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

PM Modules

PM Module (Examples)	S5	S8	S30
Electrical System			
Power Range [kW]	1.2–5.1	1.6–8.4	4.1–28.4
Current Range [A]	0–110	0–150	0–500
Voltage Range [V DC]	46–82	56–110	56–110
El. System Efficiency [%]	> 46	> 43	> 38
Hydrogen System			
Hydrogen Quality	ISO 14687-2 / SAE J2719		
H2 Supply Pressure [bar_g]	2.2–7.5	2.2–7.5	3.0 +/-0.5; 7.0 +/-0.5
Hydrogen Consumption (max) [kg/h]	0.31	0.57	1.85
Environmental Conditions			
Ambient Temperature [°C] Operation:	+5 to +40		
Storage & Transport:	-20 to +60		
Operating Altitude* [m]	< 2,000		
Humidity ** [% r.H.]	< 95		
Lifetime [op. hrs.]	> 20,000		
Dimensions / Others			
L x W x H [mm x mm x mm]	785 x 465 x 308	785 x 465 x 308	1000 x 600 x 1100
Volume [l]	112	112	660
Tare weight [kg]	77	79	260
Conformity	CE, EN 62282-2		

* without de-rating
** non condensing

Errors excepted, technical changes reserved. Product specifications are subject to change without further notification.

PM Module S5/S8

PM Module S30

The modular and universal Fuel Cell systems for stationary applications

Development by Proton Motor including peripheral components for stationary use in compact dimensions. Flexible and adaptable to multiple applications, reliable and predictable thanks to Proton Motor´s allround services. Individual customer applications can be fulfilled.

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Stationary
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