## **Proton Care**

### **Global Service and Support Solutions**

Proton OnSite is proud to offer products and services that assure a superior level of customer satisfaction. Our uncompromising attention to excellence and quality enables us to deliver, install and support gas generation solutions on every continent. With proven reliability and world-class coverage in over 75 countries, we continue to foster a strong network of lasting relationships with our customers.

Let us help you, visit www. protononsite.com to learn more!





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## **High Capacity Hydrogen Systems**

# **M Series PEM Electrolysers**



#### **ProtonOnSite.com**

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With the growing need for a stable, cost-effective and high-volume hydrogen supply, critical industrial applications require turnkey solutions that provide safe, clean and reliable hydrogen.

- Ammonia Production
- Refining
- Heat Treating
- Float Glass Manufacturing

- Semiconductor Manufacturing
- Chemical Synthesis
- Hydrogenation
- Thermal Spray

The breakthrough M Series hydrogen generation system utilizes advanced Proton Exchange Membrane (PEM) water electrolysis technology to address global hydrogen needs.

#### **FLEXIBILITY**

- Small footprint
- Scalable modular design
- Indoor or outdoor options
- Simple installation requirements
- 0-100% variable output
- Instantaneous response to variable process demands

#### **COST EFFICIENCY**

- High purity and high pressure
- Fully automated system
- Remote monitoring and control
- Low cost compared to alternate hydrogen supply methods
- High efficiency
- Minimal annual maintenance

#### **SAFETY**

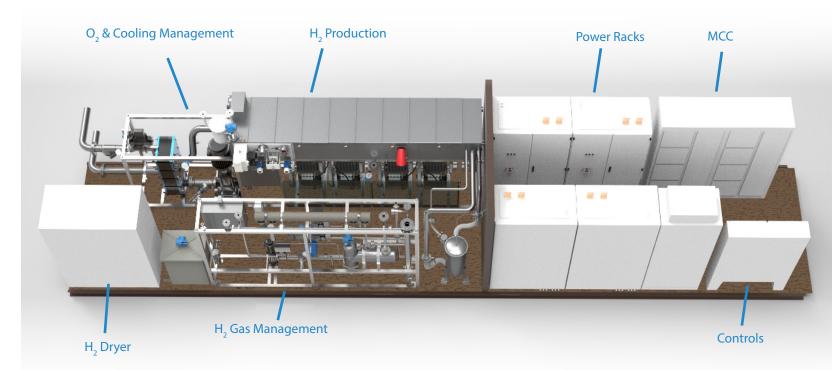
- No caustic material handling
- Uninterrupted supply
- Minimal storage and handling
- Advanced differential pressure design

#### **RELIABILITY**

- > 99% availability
- Power cycling without stack degradation
- Over 20 years of PEM experience
- · More than 2500 systems installed
- Trusted by U.S., British and French militaries

#### **LOW CARBON FOOTPRINT**

- 100% emission-free with renewable energy
- Supports sustainability objectives



Containerized Solution of M200

| MODEL                | M100   | M200                              | M400                              |
|----------------------|--|-----------------------------------|-----------------------------------|
| Description          | Large-scale, modular, skid-based, on-site hydrogen generator. Load following operation automatically adjusts input to follow supply or output to match demand. |                                   |                                   |
| Electrolyte          | Proton Exchange Membrane (PEM) - caustic-free  |                                   |                                   |
| Hydrogen Production* | 100 Nm³/hr<br>216 kg per 24 hours  | 200 Nm³/hr<br>432 kg per 24 hours | 400 Nm³/hr<br>864 kg per 24 hours |
| Delivery Pressure    | 30 barg / 435 psig   |                                   |                                   |
| Hydrogen Purity*     | > 99.9995% (water vapor < 2 ppm, -72°C (-98°F) dewpoint,<br>N2 < 2 ppm, O2 < 1 ppm, all others undetectable)   |                                   |                                   |

<sup>\*</sup> Each platform is scalable at 50 Nm<sup>3</sup>/hr increment.

Summary specifications are subject to change. For full technical specifications, please contact Proton OnSite.

<sup>\*</sup> With hydrogen dryer