# **Hydrogen Generators**

for GC combustion detector applications



The Parker H-Fuel high purity hydrogen gas generators offer the optimum combination of safe operation, reliability and performance.

Utilising field proven PEM cell technology, hydrogen is produced on demand from deionised water and electricity, at low pressure and with minimal stored volume. Innovative control software allows unrivalled operational safety and reliability.

The H-Fuel generators ideally supply fuel gas to all known GC combustion detectors used in today's laboratory workflows. Three models operate at flow rates; 160 ml/min, 250 ml/min and 500 ml/min.

Hydrogen generators are available with Remote Networking software. Remote Networking software allows up to 27 hydrogen generators to be actively controlled from one central PC, and facilitates true cascading capabilities.



### **Product Features:**

- Eliminate dangerous hydrogen cylinders from the work place
- · Simple to install and operate
- Compact, reliable with minimal maintenance
- Produces a continuous supply of 99.9995% pure hydrogen at up to 6.9 bar
- 3 year standard cell warranty
- Optional automatic water fill and remote networking capability





#### **Product Selection**

| Model    | Flow Rate | Purity*  | Water Consumption (24/7, full flow) | · I Jelivery Pressure |       | Optional Auto    |  |
|----------|-----------|----------|-------------------------------------|-----------------------|-------|------------------|--|
|          | ml/min    | %        | L/week                              | bar g                 | psi g | Water Fill (AWF) |  |
| 20H-Fuel | 160       | >99.9995 | 1.25                                | 0.3-6.89              | 5-100 | YES              |  |
| 40H-Fuel | 250       | >99.9995 | 2                                   | 0.3-6.89              | 5-100 | YES              |  |
| 60H-Fuel | 500       | >99.9995 | 4                                   | 0.3-6.89              | 5-100 | YES              |  |

\*With respect to oxygen

Note: For auto water fill option add suffix AWF ie 20H-AWF

#### **Technical Data**

| Ambient Temperature Range                                      | 5 - 40°C<br>(41 - 104°F)   |  |  |
|--|--|--|--|
| Water Supply Pressure*   | 0.1 bar g<br>(1.45 psi g)  |  |  |
| Water Supply Flow Rate*  | 1 L/min  |  |  |
| Water Quality  | Deionised. ASTM II, >1M $\Omega,$ <1 $\mu s,$ filtered to <100 $\mu m$                   |  |  |
| Supply Voltage Range   | 90 - 264V 50/60Hz  |  |  |
| Port Connections Hydrogen Outlet<br>Water Drain<br>Water Fill* | ½" Compression Fitting<br>Quick Release Push in Fitting<br>Quick Release Push in Fitting |  |  |

<sup>\*</sup>With optional AWF

## **Weights and Dimensions**

| Model    | Height (H) |      | Width (W) |      | Depth (D) |      | Weight (Empty) |      | Weight (Full of Water) |      |
|----------|------------|------|-----------|------|-----------|------|----------------|------|------------------------|------|
|          | mm         | in   | mm        | in   | mm        | in   | kg             | lb   | kg                     | lb   |
| 20H-Fuel | 456        | 17.9 | 342       | 13.5 | 437       | 17.2 | 19             | 41.9 | 23                     | 50.7 |
| 40H-Fuel | 456        | 17.9 | 342       | 13.5 | 437       | 17.2 | 19             | 41.9 | 23                     | 50.7 |
| 60H-Fuel | 456        | 17.9 | 342       | 13.5 | 437       | 17.2 | 19             | 41.9 | 23                     | 50.7 |

## **Preventative Maintenance**

| Preventative Maintenance Kit    | Part Number | Change Frequency |
|---------------------------------|-------------|------------------|
| Replacement desiccant cartridge | MKH2PEM-D   | As required*     |
| 6 month kit                     | MKH2PEM-6M  | 6 months         |
| 24 month kit                    | MKH2PEM-24M | 24 months        |

- \* 20H Continuous operation approx 6 to 7 months \* 40H Continuous operation approx 4 to 5 months
- $^{\star}$  60H Continuous operation approx 2 to 3 months

## **Optional Extras**

| Description                        | Part Number                 | Required for                                  |  |  |
|------------------------------------|-----------------------------|---|--|--|
| Remote Networking Module           | H2-REMOTE-NET-DH 604971530  | Allows cascading of two generators            |  |  |
| Remote Networking Expansion Module | H2-REMOTE-EXP-DH 6049711540 | Required to cascade each additional generator |  |  |





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