

# H SERIES



*"Designed for the  
future. The safe  
alternative  
to helium"*

**Hydrogen generator  
for carrier gas  
and detectors**

BREZZA



## MODELS

H 200

H 400

H 600

- ✓ Designed for **Carrier Gas** in GC, GC-MSD and “**FAST GC**”
- ✓ **UHP Purity** that meets the needs required by **track analysis**
- ✓ **Security system** with display messages, automatic stop devices and warning signals in case of gas leak
- ✓ **Availability of automatic switch with inert gas** if the production of hydrogen stops
- ✓ **Parallel connection** from series up to 4 stacked generators



## FEATURES

- **Modular configuration**
- Equipped with the innovative HT PEM cell for high purity
- **Removable water tank** for easy cleaning and water change; automatic water loading pump included for external water supply
- **Maintenance:** simple substitution of the deionizing bag and drier, only after 50.000l of H<sub>2</sub> produced
- **CPU with Touch Screen Display** connectable with CAN BUS to the generators (up to 32 units), which allows the monitoring of operational status
- **Hydrogen production proportional to consumption**, with the minimum gas storage within the instrument
- CPU equipped with **LAN connection**

## APPLICATIONS

Carrier gas

In GC as a fuel for the flame of detectors FID, NPD, FPD and ATF

In ICP for collision reaction interface



## TECHNICAL SPECIFICATIONS

|                                     |                                                                                                                                                            |
|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| FLOW RATE                           | 200/400/600 Nml/min $\pm$ 10% a 2000 m slm<br>(possibility to connect in parallel up to 4 stacked generators)                                              |
| TECHNOLOGIES EMPLOY                 | HT PEM electrolytic cell                                                                                                                                   |
| OUTPUT PRESSURE                     | 2 - 8 bar / 30 - 116 psi                                                                                                                                   |
| PURITY                              | 99,9999 %<br>Oxygen < 1 ppm                                                                                                                                |
| MOISTURE                            | Better than -70° C dew-point ATP at 20°C                                                                                                                   |
| REQUIREMENTS OF DEMINERALIZED WATER | Required resistivity >1 MΩ cm @25°C; ASTM Type II<br>Advised resistivity >10 MΩ cm @25°C; ASTM Type I                                                      |
| ELECTRICAL SUPPLY                   | 115/230 VAC (+/- 10%) 50-60 Hz<br>H 200: 110W<br>H 400: 180W<br>H 600: 250W                                                                                |
| INDEX OF PROTECTION                 | IP20                                                                                                                                                       |
| NOISE                               | < 50 dBA                                                                                                                                                   |
| OPERATING TEMPERATURE               | 5°C - 35°C / 40°F - 95°F                                                                                                                                   |
| ENVIRONMENTAL HUMIDITY              | max 90% without condensation                                                                                                                               |
| MAX ALTITUDE                        | 2000 m slm                                                                                                                                                 |
| DIMENSIONS                          | Height: 40 cm + 7 cm (base) /15.8" + 2.8"<br>Width: 38 cm/14.9"<br>Depth: 53 cm/20.8"                                                                      |
| WEIGHT                              | 30 kg/67 lbs                                                                                                                                               |
| PNEUMATIC CONNECTIONS               | Hydrogen output : G 1/8" female AISI 316<br>Exhaust: quick coupling for plastic pipe 4 mm<br>Input demineralized water: flexible hose with 1/4" connection |
| WARRANTY                            | 2 years                                                                                                                                                    |

## CERTIFICATIONS



Complies with **ATEX**

