



HYDRO60LS2 – HIGH FLOW, ULTRA HIGH PURITY HYDROGEN GENERATOR



H₂

APPLICATIONS

- ✓ Carrier gas for Gas Chromatographs
- ✓ Fuel Cell research, Protection gas

DESCRIPTION

PEUS-Instruments designed the **HYDRO60LS2** product line of **High Flow, Ultra High Purity Hydrogen Generator** to aliment GCs, for research on fuel cell and to fit almost any type of application which needs H₂ production close to the consumer in an elegant light grey casing with full color display and touchpad.

Based on the field proven Solid Polymer Electrolyte (PEM) cell technology, pure Hydrogen is produced at low pressure from electricity and high quality distilled water. After production, H₂ is dried first by a passive dryer and then purified and dried by passing through a No Maintenance PSA module. H₂ is available 24/7 with constant purity **>99.9999%**. Output pressure is regulated electronically and could be set from 0.5 to 8 bar. This process can be started on demand and does not require any caustic solution. The device is composed of several independent modules (1.2 L/min by module), connected in parallel and controlled by an RS485 internal bus (cogeneration). In case of failure, each module could be switched off and removed from the device.

Models with outflows of **3.6, 4.8 and 6 L/min H₂** available.

Each instrument is equipped with high performance communication interfaces RS485, Ethernet and WLAN to create a very flexible gas network with local or central control.

Due to the software being focused on safety, automatic regulation and intuitive and reliable communications, the **HYDRO60LS2 High Flow, Ultra High Purity Hydrogen Generators** are easy to install, reliable and pleasant to operate.

BENEFITS

- ✓ Reduces in operation costs. Return on investment within 1.5 year.
- ✓ No Maintenance. Easy supervision and diagnosis by module.
- ✓ Improves resolution and detection limit versus Helium only usage.
- ✓ Provides High pressure stability.
- ✓ H₂ available 24/7 at constant purity No contamination.
- ✓ Independent source of Hydrogen that does not require any piping and can be easily moved around the laboratory.
- ✓ Remote control from PC, I-phone and I-pad.
- ✓ Very safe operation, internal leak-test, automatic shut-down, over-pressure valve, H₂-cell current and voltage limits.
- ✓ No handling and storage of cumbersome gas cylinders. No cylinder rental fee.
- ✓ Extended autonomy with internal 20L water tanks or connection to water distribution

HYDRO60LS2 HIGH FLOW, ULTRA HIGH PURITY HYDROGEN GENERATOR

SPECIFICATIONS

Models	HYDRO60LS2-3600, HYDRO60LS2-4800, HYDRO60LS2-6000
H2 Outflow maximum @ 1013/20°C	HYDRO60LS2-3600 = 3.6 NI/min ; HYDRO60LS2-4800 = 4.8 NI/min HYDRO60LS2-6000 = 6 NI/min
H2 purity	>99.9999% (HC<0.1ppm)
Dew point	< -70°C
Outlet Pressure	From 0.5 to 8 bar (7 to 110 psig), adjustable by software.
Water quality	High purity distilled + filtered water. TOC free.
Water alimentation	Internal tank, 20L or by central distribution network (option)
Water consumption	20L water generates about 22 m ³ Hydrogen
Safety	Low H2 stored volume; over pressure valve; leak test; automatic shut down; maximum current limit, water quality
Sound pressure	< 50 dB(A), measured at 1m
Manual control	Through a 4.3" TFT-LCD color display with touchpad, located on the front panel. Display of major parameters, functioning status and alarms. Intuitive navigation to functions by menus and sub menus.
Remote control, Communications	<ul style="list-style-type: none"> ■ Trough Ethernet 10/100 network (option) ■ Trough WLAN network, with PC, I-Phone, I-Pad (option) ■ Log book download by USB.
H2 outlet fitting	Stainless steel 1/4" OD compression
Power supply	Automatic switching from 90VAC to 260VAC, 47 to 63 Hz
Power consumption (max at full flow)	HYDRO60LS2-3600 : maximum 1500W; HYDRO60LS2-4800: maximum 2000W HYDRO60LS2-6000 : maximum 2500W
Dimensions	W=55cm, H=105cm, D=60cm, with castors
Net weight, without water	HYDRO60LS2-3600: 100Kg; HYDRO60LS2-4800: 120Kg; HYDRO60LS2-6000 : 140Kg
Certification	CE

ORDERING NUMBERS

Model	Article #
HYDRO60LS2-3600	751111
HYDRO60LS2-4800	751112
HYDRO60LS2-6000	751114

Model	Article #
LAN interface (Option)	751181
WLAN Interface (Option)	751183
Central distribution network (Option)	751151

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