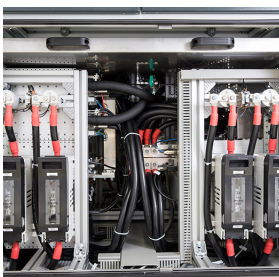


HORIBAFuelCon
Evaluator C

EVALUATOR C1000-LT

PEM Large Area Single Cell and Short Stack Testing



- Up to 1,000 A current
- For endurance or accelerated testing of large cell areas and short stacks
- Extended safety features including LEL hydrogen detector and cabin ventilation
- Fully automated for safe, reliable, unattended operation
- Dynamic Direct Injection humidifier technology for up to 250 °C gas temperature (option)



EMISSIONS



ELECTRIFICATION



CAV



DATA

HORIBA
Automotive

EVALUATOR C1000-LT

The Evaluator C1000-LT is tailored to the needs of complex single cell and short stack testing and evaluation. With current capability up to 1,000 A, the C1000-LT is ideal for endurance testing and accelerated life time simulation especially for large cell areas with high current densities. The various safety features include a closed test cabin and an integrated ventilation system with LEL hydrogen detectors to safeguard the operator and your facility.

The C1000-LT can be equipped with HORIBA FuelCon's proprietary direct injection humidifier technology and therefore perfectly suitable for dynamic simulation of mobile applications in order to study fuel cell system behavior and optimize system design.

In addition, we offer hardware-in-the-loop tools for simulating subsystem load implication on the fuel cell power plant. Combined with our sophisticated TestWork software, this system operates using either hydrogen, methanol or reformat fuels and is a powerful tool designed for MEA and stack developers as well as manufacturers to accelerate the time to market.

The integration of several devices from our diagnostic products such as our impedance analyzer and cyclic voltammetry allows operators to perform detailed studies of material behavior under real application conditions up to operating temperatures of 250 °C.

GENERAL FACTS	
STANDARD ANODE FLOW RANGE [NL/MIN]	0.4 to 40
STANDARD CATHODE FLOW RANGE [NL/MIN]	1.0 to 100
FOOTPRINT L X W X H, [METER] (INCHES)	2.0 to 2.2 x 1.2 x 2.2 (79" to 87" x 47" x 87")
STANDARD GAS TEMPERATURE	130 °C (194 °F) or 250 °C (482 °F)
HUMIDITY RANGE [HR]	Precise, dynamic-response humidification or saturator; dry to 100 % at 90 °C (194 °F)
BACK PRESSURE CONTROL RANGE [BARA]	1.1 to 5.0
ELECTRONIC LOAD	Up to 1,000 A, 2.5 V, 35 V; 2,000 W zero voltage option
THERMAL MANAGEMENT	Water-based liquid loop up to 130 °C (266 °F) or oil-based liquid loop up to 230 °C (446 °F), max 5.0 bara system pressure
SAFETY FEATURES	PLC controlled 3-level alarming system, programmable nitrogen purge, emergency stop, hydrogen LEL detector
DATA LOGGING	SQL data base

OPTIONS
Reformat simulation Environmental chamber connection CVM up to 100 channels TrueData-EIS (impedance analysis)

SAFETY	
CE CONFORMITY MARKING (ACCORDING TO)	EMC directive 2014/30/EC Low voltage directive 2014/35/EC ATEX directive 2014/34/EC General product safety directive 2001/95/EC Machinery directive 2006/42/EC Pressure equipment directive 2014/68/EC
RISK ASSESSMENT	DIN EN ISO 13849 DIN EN ISO 12100

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