LARGE AREA SINGLE CELL 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)
- Advanced pre and back pressure control functions
- Maximum performance and safety via integrated PLC

HORIBA FuelCon

Evaluator C1000-LT

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)	1.8 x 1.2 x 2.0 (71” x 47” x 79”)
Standard gas temperature	130 °C (266 °F) option: 250 °C (482 °F)
Humidity range [HR]	Precise, dynamic-response humidification or saturator; dry to 100 % @ 90 °C (194 °F)
Back pressure control range [bara]	1.1 to 5.0
Electronic load	Up to 1,000 A autoranging 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

Reformate simulation
Extended temperature range up to 250 °C (482 °F)
TrueData-EIS (impedance analysis)
TrueData-CYV (cyclic voltammetry)
Environmental chamber connection

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

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 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 FuelCon‘s sophisticated TestWork software, this system operates using either hydrogen, methanol or reformate 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 TrueData line of 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.

Please feel free to download the latest information available at www.horiba-fuelcon.com. If you have any questions, please do not hesitate to contact us. We will be happy to support you and discuss your testing requirements!

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HORIBA FuelCon | Steinfeldstr. 1 39179 Barleben | Germany | T +49 39203 514 400 F +49 39203 514 409 | info@horiba-fuelcon.com www.horiba-fuelcon.com