

EVALUATOR S25-LT

PEM Stack and System Testing



EMISSIONS



ELECTRIFICATION



CAV



DATA



- Up to 50 kW power range
- For simulation of all requirements for stationary or mobile applications
- Extended safety features including LEL hydrogen detector and cabin ventilation
- Fully automated for safe, reliable and unattended operation
- Maximum performance and safety via integrated PLC

EVALUATOR S25-LT

The Evaluator S25-LT is tailored to the needs of complex stack and system testing and evaluation. The design allows endurance testing and accelerated life time simulation which can be optimized for the typical needs of stationary or mobile applications. Various safety features include a closed test cabin and an integrated ventilation system with LEL hydrogen detectors to safeguard the operator and your facility. Mechanical and software interfaces are available to integrate environmental chambers or shaker platforms into test programs.

The S25-LT is perfectly designed for the 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 or reformat fuels and is a powerful tool designed for MEA and stack developers and manufacturers to accelerate the time to market.

The integration of several devices from our diagnostic products such as our impedance analyzer 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]	8 to 800
STANDARD CATHODE FLOW RANGE [NL/MIN]	20 to 2,000
FOOTPRINT L X W X H, [METER] (INCHES)	6.0 x 1.6 x 2.4 (236" x 63" x 95")
STANDARD GAS TEMPERATURE	130 °C (194 °F) or 250 °C (482 °F)
HUMIDITY RANGE [HR]	Precise, dynamic-response humidification, dry (by-pass) to 100 % @ 90 °C (194 °F)
BACK PRESSURE CONTROL RANGE [BARA]	1.1 to 5.0
ELECTRONIC LOAD	Maximum 1,000 A / 600 V / 50 kW
CVM (CELL VOLTAGE MONITORING)	CVMpro-G4 MCM-IntelliProbe-U10 (SMART Testsolutions) -1 to 5 V or -3 to 3 V; accuracy ±0,1 %; up to 400 channels
THERMAL MANAGEMENT	Water-based liquid loop up to 130 °C (194 °F) or oil-based liquid loop up to 230 °C (500 °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
OPERATIONAL MODES	Various dead-end and purging modes

OPTIONS	
Reformat simulation	
Impedance analysis	
Environmental chamber connection	
Shaker and tilt unit operation	

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
RISK ASSESSMENT	Pressure equipment directive 2014/68/EC
	DIN EN ISO 13849
	DIN EN ISO 12100

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