EVALUATOR B

Solutions for Battery Development, Testing and Validation

EMISSIONS
ELECTRIFICATION
CAV
DATA

- Customized charge-discharge units up to 1,500 A / 1,500 V / 1,000 kW
- Integration of climate chambers, chillers and other customer devices
- Full flexibility with powerful TestWork software and data security with SQL database
- Outstanding accuracy and resolution for R&D application
- Extended CAN safety according to ASAM-ODS standard

HORIBA Automotive

EVALUATOR B

For the development and validation of high-performance batteries and hybrid systems, HORIBA FuelCon offers the Evaluator B, a system fulfilling the challenging demands of these operations with high accuracy and flexibility.
The Evaluator B series suits for testing batteries of different technologies and can be customized for your testing requirements and applications, based on it´s modular design & sophisticated safety concept.
Our solutions bring together a wide range of equipment and technologies under the powerful automation software TestWork. This allow a centralised, user friendly preparation, execution and evaluation of complex tests. These tests can be the analysis of durability and capacity under different environmental conditions, the battery degradation or driving cycles.

GENERAL FACTS	
INTEGRATION	Overall safety concept with event handling Fail safe PLC control
SOFTWARE & AUTOMATION	TestWork Automation Unattended 24/7 operation Real time system Remote interface
DATA LOGGING	Central data handling with sampling rates up to 1 ms Unique tag concept Flexible data export

ELECTRICAL SPECIFICATIONS	
CURRENT	Up to 1,500 A High dynamic current slew rates
VOLTAGE	Up to 1,500 V 4 quadrants operation with 0 V option
POWER	Up to 1,000 kW & over load of 30 to 50 % Grid feedback, up to 95 % efficiency Multi-Channel configuration with load management
IMPEDANCE	Integrated measurement under load up to 500 A/100 kHz

INTERFACES / DATA AQUISITION	
EXECUTION	Mobile, measure gallow, control cabinet
CONNECTIVITY	Measuring of temperature, voltage, current Different accuracy, measuring range and measurement data acquisition rates with EtherCAT support Control functions via analog und digital in- and output
CAN GATEWAY	Test item interface with real time CAN interface and terminal control

TESTING CABINET	
ENVIRONMENTAL SIMULATION	Thermal or climate chamber according to EUCAR Hazard levels Out/Indoor container installations
SAFETY FEATURES	High Voltage protection concept and touch proof design Door monitoring and close mechanism Exhaust gas handling and monitoring Inerting systems and fire fighting systems
CHILLER	Battery cooling systems in different configurations for multiple channels and medias

TESTING	
PERFORMANCE TESTS	Capacity test Internal resistance and pulse power test Adjusting the SOC Lifecycle and endurance test for accelerated aging Driving cycle test
ENVIRONMENTAL SIMULATION	Temperature shock test Humidity and corrosion test Dust test Vibration and shock test

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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