

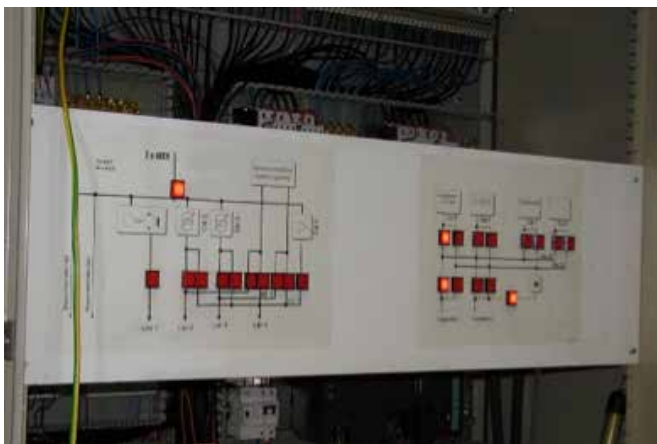


EnergyVille Matrix Laboratory

Measure the electrical and mechanical characteristics of your electro-technical equipment, power electronic devices and solar panels

In the EnergyVille Matrix lab, our experienced team executes tests on and validates:

- solar panels and their ancillaries, in controlled climate and irradiation conditions.
- electrical motor, transformer or generator behaviour and efficiency that is subject to variable power and load curves
- measurements on power electronic devices and converters
- interaction between multiple devices and energy modalities
- calibration of power meters
- customised experiments and measurements



Extra tests

Connect our Matrix Lab with our Medium Voltage Lab, Smart Grid Infrastructure Lab, Home Lab, Battery Testing Lab and/or Thermo Technical Lab for all-round testing.

Applications

Use our Matrix Lab to:

- test the performance and efficiency of industrial components
- study the interactions of these components with other devices

This service is suitable for:

- manufacturers of electrical equipment, motors, etc.
- system integrators
- developers of electrical equipment



Characteristics

- Multiple, multi-modal sources and loads can be interconnected as desired
- Standard, industrial power available up to 45kW/100kW
- Atlas SolarClimatic Test Cabinet Type SC 2000 MHG
- Test benches for electric motors/generators from 500W to 45/90kW
- Various AC and DC generators
- Controllable sources to generate outputs 0-400V at 64A / 200A
- Various bi-directional, programmable power electronic sources
- Various resistive loads
- Power calibration table with precise three-phase voltage and current control (up to 600A)
- Precision voltage, current, torque, speed, temperature and power measurements
- Remote-controllable using local Ethernet or over the Internet
- Many more capabilities at user's request

Extra features

The EnergyVille Matrix Lab can be connected to EnergyVille's Medium-Voltage Energy System Lab, Smart Grid Infrastructure Lab, Home lab and Thermo Technical lab.

Conditions

Access to the Matrix Laboratory can only be obtained when an EnergyVille representative is present. Access is also limited to persons familiar with the infrastructure. The required test and set-up will always be designed in collaboration with an EnergyVille expert.



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*EnergyVille is an association of the Flemish research institutes KU Leuven, VITO and imec in the field of **sustainable energy and intelligent energy systems**. Our researchers provide expertise to industry and public authorities on energy-efficient buildings and intelligent networks in an urban environment. This includes, for example, smart grids and advanced district heating and cooling.*

This EnergyVille lab functions according to the international quality, environment and safety standards ISO 9001, ISO 14001 and OHSAS 18001.

