

PV TESTING LABORATORY

The PV testing laboratory is equipped with the following main hardware, intended for the testing of PV cells, modules or arrays.

- Solar simulator: A class “A” solar simulator featuring a Xenon flash lamp and a computerised control and data acquisition system, for the acquisition of IV curve of PV modules.
- Field IV curve tracer: A field IV curve tracer, equipped with temperature and irradiance sensors, for the outdoors IV curve acquisition of PV modules or arrays for PV power up to 100kW.
- Environmental Chamber: An environmental chamber of useful volume of 5m³, with capability of temperature control in the range from -40°C to 85°C, for the implementation of thermal cycling tests on PV modules.
- Recently the laboratory was equipped with a system for monitoring and long-term outdoor testing of PV modules. The specific measuring system was developed in CRES.



Fig. 1 Long-term test of PV modules