**29-11-16**

**For solar field website on lmpv.nl**

Welcome to the FOM Institute AMOLF’s own solar field located in Science Park, Amsterdam. Established in 2016, this project brings current photovoltaic technology to the forefront of AMOLF research and to the Amsterdam public. And now, we’re bringing it to you online.

At AMOLF, we collect data on the performance of six types of commercially available solar panels, each with their own unique characteristics:

* Copper Indium Gallium Selenide (CIGS), a flexible module;
* Cadmium Telluride (CdTe), a lower cost module;
* Polycrystalline Silicon (Poly-Si), the most commonly used technology;
* Integrated Back Contact Monocrystalline Silicon (IBC Si), light-capturing cells located at the back of the panel unit;
* Heterojunction Intrinsic Layer Monocrystalline Silicon (HIT Si), highest lab-tested efficiency;
* Copper Indium Gallium Selenide (CIGSm), with a reflective backing.

In addition to monitoring the power, current, module temperature, and other parameters from the solar panels themselves, AMOLF also has a weather station plus a solar spectrometer and pyranometer to measure incoming solar radiation.

Data in these three forms are collected every five minutes and stored on internal servers. Researches at AMOLF investigate the behaviour of these panels. However, we also believe such valuable information should be shared with citizen scientists like yourself. So, this raw data is open for public use.

List Available Data:

1. Weather

* Average temperature (oC)
* Dewpoint (oC)
* Humidity (%)
* Air pressure (hPA)
* Air density (kg/m3)
* Wind speed (km/h)
* Wind direction (o)
* Wind measurement quality (%)

1. Solar radiation

* Sensor temperature
* Wavelength (nm)
* Irradiance (W/m2/um)

1. Module Parameters (for each of the six panel types)

* Voltage at maximum power point (mpp) (V)
* Current at mpp (A)
* Power at mpp (W)
* Open circuit voltave (Voc) (V)
* Closed circuit current (Isc) (A)
* Fill factor (%)
* **G temperature of pyranometer** (oC)
* Module temperature (oC)
* G\_pyranometer irradiance (W/m2)
* Voltage range (s/sec)
* Current range (s/sec)
* Scan rate

Disclaimer:

There are at times situational occurrences, such as construction, which affect the data collection. Therefore while we attempt to note these events in our data uploads, we cannot guarantee that we note all possible effectors or anomalies.

License:

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