Testing the efficiency of the MPP-Tracker

MPP-Tracker

Input:

Pmax: 300 W

Vmax: 55V

Imax: 5,47A

Output:

V: 12 V or 24 V

Imax: 20 A

Setup to measure the **efficiency** of the MPPT:

- **Variable DC-supply** simulating the PV-panels
- MPP-Tracker
- Battery as load

Measurements:

- Measure the input voltage **Vin**
- Measure the input current **Iin**

- Measure the output Voltage **Vout**
- Measure the output current **Iout**

Calculations:

- Input Power(total system power):Vin x Iin =Pin
- Output Power: Vout*Iout = Pout

- **MPPT-Efficiency :(Pout/Pin)*100 = Etta mppt[%]**
- Expected efficiency ~90%
- MPPT-Consumption= Pin-Pout