

## Inhoud

1. Modbus TCP .....	2
2. Installation.....	3
3. Configuration.....	4
4. Final check.....	5

## 1. Modbus TCP

De Solaredge inverter is recommended to connect through Modbus TCP.  
The Modbus TCP installation requires UTP cable from the interface to the Flexbox.  
For extending the interfaces with Modbus TCP, a 24v switch is needed.

The data transfer for this interface goes with the IP address.  
This IP address needs to be set on fixed.

## 2. Installation

The UTP cable needs to be in the interface and in the 24v switch, which is connected to the Flexbox.

The UTP cable needs to be connected in the Teltonika which can be found at the top off the batterie. The side panel needs to be removed for implementation.

The picture below shows where the UTP cable needs to be plugged in.



The IP address needs to be configured in the same range as the IP address off the Flexbox. The IP address of the Flexbox can be found through an IP scanner or through CMD on your Windows laptop. Example: 192.168.1.xxx or 10.10.20.xxx  
To configure the IP address, contact the Ateps software engineer.

## Configuration

Configuration of an interface with the Oliva Flexbox will be done in the config file. The program Win SCP is necessary and the manual can be found on the portal.

In the config file, change the parameters which is shown below.

- Device ID are following up on each other in the config file
- Device type is filled in for the batterie
- Manufacturer is Ateps
- Address is where you fill in the IP address of the inverter(s)
- Charge and discharge power will be set on the batterie limitations
- Port becomes 502, necessary for Modbus TCP
- Protocol is Modbus TCP
- To activate the interface, set in use to TRUE

```
"ateps_bat": {  
  "device_id": [1,1,2,3,4,5,6,7,8,9],  
  "device_type": "bms",  
  "manufacturer": "ateps",  
  "address": ["192.168.178.60", "", "", "", "", "", "", "", "", ""],  
  "port": 502,  
  "protocol": "modbus_tcp",  
  "charge_power": 0,  
  "discharge_power": 0,  
  "in_use": "FALSE"
```

### 3. Final check

After the configuration has been done, log in into the HMI and check the Acrel 3Ph page to see if the data is showing in the portal. If data is showing, the interface is installed correctly.

## Battery - Ateps

SOC: 89 %

Voltage L1: 0.0 V

Voltage L2: 0.0 V

Voltage L3: 0.0 V

Current L1: 0.0 A

Current\_L2: 0.0 A

Current L3: 0.0 A

Power: 46.3731 W

Energy In: 1035904. Wh

Energy Out: 478798.0 Wh

Frequency: 0.0 Hz

#### Error Message:

Inverter Status Error: false

MS Status Error: false

In use by EMS: false

Inverter in use by EMS: false

Status: 0

Comm Error: false

BMS Status: charging