## Inhoud

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## 1. Modbus RTU

De Acrel 3 phase kW meters are connected through Modbus RTU.
The Modbus RTU installation requires a RS UNI component, for which the installation is shown below.

Communication module - AXL F RS UNI 1H - 2688666
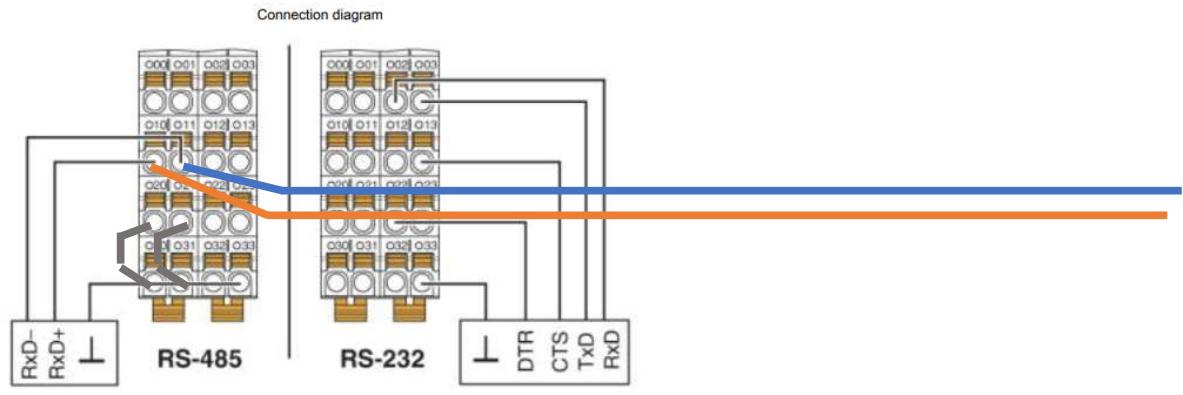


- Connect shielded 2 wire between Oliva Flexbox Uni block and 1st Acrel power meter
  (Uni 010 RxD+ to Acrel 21), (Uni 011 RxD- to Acrel 22)
- Termination resistor is at the UNI block by connecting 020 - 030 and 021 – 031

## 2. Installation



Acrel dtsd1352 power meter

Slave address: 200

Acrel dtsd1352 power meter

Slave address: 201

- When multiple powermeters are used,
  connect Acrel 21 to next powermeter port 21 and
  Acrel 22 to next port 22.
- At last powermeter, add terminator resistor between
  port 21 and 22
- Set first powermeter slave address to 200, all subsequent powermeters add 1 to the
  address (201, 202 etc)
- Partity: None
- HI: 111240
- LO: 281447
- Baud: 9600

## 3. Configuration

Configuration off a 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
- Device type is filled in on powermeter
- Manufacturer is Acrel
- Adress is where you fill in the address + 1 for each
- Port remains 0
- Protocol is Modbus RTU
- To activate the interface, set in use to TRUE

```
"acrel_dtsd1352_3ph_powermeter": {
    "device_id": [0,1,2,3,4,5,6,7,8,9],
    "device_type": "powermeter",
    "manufacturer": "acrel",
    "address": [200, 0, 0, 0, 0, 0, 0, 0, 0, 0],
    "port": 0,
    "protocol": "modbus_rtu",
    "in use": "TRUE"
```

## 4. 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.

**Acrel Powermeter**

| | |
|---|---|
| pT | 1 |
| cT | 30 |
| Last updated: | 2024-12-31T08:18:35Z |
| Voltage Phase A | 226.9 |
| Voltage Phase B | 232.8 |
| Voltage Phase C | 225.7 |
| Current Phase A | 0.6 |
| Current Phase B | 0.6 |
| Current Phase C | 3.0 |
| Total Active Power | -690.0 |
| Total Reactive Power | 0.0 |
| Total Apparent Power | 1080.0 |
| Total Power Factor | 0.0 |
| Frequency | 50.0 |
| Current Total Active Energy | 0.0 |
| Current Total forward Active Energy | 0.0 |
| current Total Reversing Active Energy | 0.0 |
| Current Total Reactive Energy | 0.0 |
| current Total Forward Reactive Energy | 0.0 |