

Siemens PAC2200 – quick configuration manual

The steps below describe how to configure a Siemens PAC2200 Smart Energy Meter to an Alfen charging station.

1. Install the PAC2200 meter according to the installation specifications in the Siemens manual.
2. Connect the PAC2200 meter with a UTP cable to a local network (switch), where the charger and laptop are connected to as well.
3. Make sure to set the PAC2200 meter into the same IP range as charger and laptop. The easiest way is to disable DHCP and set a fixed IP for the PAC2200.
4. To do this, use the buttons to go the 'Modbus TCP' settings on the PAC2200 screen.
5. Then put the 'DHCP' setting on 0.
6. Set an IP of your choice, that is within the range of your charger and laptop.



7. In the ACE Service Installer, make sure Active loadbalancing is activated with the following settings:

Load balancing	Active load balancing	Advanced
Active balancing <	Active Load Balancing <input checked="" type="checkbox"/>	
TCP/IP Meter	Data Source Meter	
SCN	Received Measurements Include charging EV	
	Protocol Selection Modbus TCP/IP	

8. Under 'TCP/IP meter', enter the IP address of the PAC2200 and make sure the Slave address is set to 255:

Load balancing

Modbus TCP/IP Meter

Advanced !

Active balancing	
TCP/IP Meter	
SCN	

IP address	172.16.50.249
Slave address	255
Mode	Custom register mapping

9. In the right bottom of the screen, click the button 'Custom register mapping'

Test smart meter	Custom register mapping
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10. In the pop-up that appears, select the 'Siemens PAC2200' preset from the dropdown:

Modbus TCP/IP register mapping configuration

Select Modbus TCP/IP custom preset type

Siemens PAC2200 - V1.0

Current L1	30017	FLOAT32	x 1
Current L2	30019	FLOAT32	x 1
Current L3	30021	FLOAT32	x 1
Real Power L1	30029	FLOAT32	x 1
Real Power L2	30031	FLOAT32	x 1
Real Power L3	30033	FLOAT32	x 1

Save Close

11. Now the communication with the PAC220 should be set up. You can check this by clicking the 'Test smart meter'-button and see if values appear in the pop-up.

Load balancing

Modbus TCP/IP Meter

Advanced Setting

Active balancing

TCP/IP Meter

SCN

IP address

172.16.50.249

Slave address

247

Custom register mapping

Modbus TCP/IP Test

Current L1:

10276769792 A

Current L2:

10163312640 A

Current L3:

10163700736 A

Active Power L1:

10908498,944 kW

Active Power L2:

10617292,8 kW

Active Power L3:

10618978,304 kW

Close

Test smart meter

Custom register mapping

12. You can also check for values under 'Voltages' and 'Currents' in the Live monitoring tab.

Live monitoring

States
Communication car
Voltages <
Currents
Net quality
Sensors

Voltage levels

Socket 1

Voltage L1N (V)

Voltage L2N (V)

Voltage L3N (V)

Voltage L1L2 (V)

Voltage L2L3 (V)

Voltage L3L1 (V)

Smart meter

Voltage L1N (V) 1,131128E+10

Voltage L2N (V) 1,131133E+10

Voltage L3N (V) 1,131165E+10

Voltage L1L2 (V) 1,137433E+10

Voltage L2L3 (V) 1,137475E+10

Voltage L3L1 (V) 1,137471E+10

Live monitoring

States
Communication car
Voltages
Currents <
Net quality
Sensors

Current levels

Socket 1

Current L1 (A)

Current L2 (A)

Current L3 (A)

Current N (A)

Smart meter

Current L1 (A) 1,027677E+10

Current L2 (A) 1,016331E+10

Current L3 (A) 1,01637E+10

Current N (A) 0

13. If you see the expected values, you know the meter has been set up properly and Active loadbalancing will now be conducted by the Siemens PAC2200 Smart Energy Meter.

14. You can verify this by performing a functional test with the charging station.

(Please note that the values in the screenshots are not correct due to a scaling issue, this is not related to a faulty meter. In the field, you will see realistic values.)