Guide how to prepare a Fronius-Inverter for installation to an Energy Manager

The Fronius inverter can be connected to the internet with the help of a Fronius Data Manager. Using the IP address of the inverter, the production values of the PV system can be configured with the Energy Manager.

There are a couple of different ways how to connect the Fronius to the internet. The following steps are recommended by the Fronius Team.

Setting up the Data Manager Card

On the Data Manager-Card you will find a little switch as indicated in the picture number (1). It needs to move to position. This enables the card to be on an extraditable state. To configure an unit using the LAN settings, then the switch must be set to position A.



Activate the WIFI Access Point directly on the Fronius Inverter.



Go to the 'SETUP' menu – 'WiFi Access Point' – 'Activate WiFi AP?'

Configuring the system using the interface

Connect to the Access-Point with your laptop using the WIFI-password: 12345678



Open a web browser and to enter the Data Manager by the entering the IP 192.168.250.181



SOLAR.WEB Wizard. (Please note: you don't need the "Technician wizard" unless you want to



Enter a System Name (will be the host name as well). Feed-in tariff and grid supply tariff is obligatory and is just used for the local monitoring system with the inverter.

| General | | | | Netv | vork setup | |
|--------------------|----------------------|------------------|----|------|------------|----|
| System name * Sy | rmo 3.0 Hinten Links | | | | | |
| Yield | | | | | | |
| Feed-in tariff | 14.12 € (EUF | Հ) ∽ /kWh | | | | |
| Grid supply tariff | 0.95 | /kWh | | | | |
| System time | | | | | | |
| Date / time * | 08/08/2017 | 12 : | 36 | PM Y | | |
| automatically tim | e syncronisation | | | | | |
| Time zone setti | ngs | | | | | |
| Time zone * | Europe ~ Ber | in | ~ | | | |
| | | | | | | |
| | | | | Back | Forwa | rd |

In the section "Inverter" it is mandatory to enter the device-name and the installed power.

| General Inverter Network setup System name * Symo 3.0 Hinten Links Set all No visible Device type Device name PV(WP) © 2 Symo 3.0-3-S * Symo 3.0-3-S (2) * 3000 | General Inverter Network setup System name * Symo 3.0 Hinten Links Set all No visible Device type Device name 2 Symo 3.0-3-S * Symo 3.0-3-S (2) * 3000 2 Symo 3.0-3-S * Symo 3.0-3-S (2) * 3000 | System monitorin | g | i en | Fronius |
|---|---|-------------------------------------|--------------|------------------|------------|
| System name * Symo 3.0 Hinten Links No visible Device type Device name PV(Wp) 2 Image: Symo 3.0-3-S * Symo 3.0-3-S (2) * 3000 | System name * Symo 3.0 Hinten Links No visible Device type Device name PV[Wp] 2 Image: Symo 3.0-3-S * Symo 3.0-3-S (2) * 3000 | General | Inverter | Net | work setup |
| Set all No visible Device type Device name PV(Wp) 2 Image: Symo 3.0-3-S * Symo 3.0-3-S (2) * 3000 3000 Image: Symo 3.0-3-S * Symo 3.0-3-S (2) * 3000 Back Forward | Set all No visible Device type Device name PV[Wp] 2 Symo 3.0-3-S Symo 3.0-3-S (2) 3000 Back Forward | System name * Symo 3.0 Hinten Links | | | |
| No visible Device type Device name PV[Wp] 2 Symo 3.0-3-S * Symo 3.0-3-S (2) * 3000 Back Forward | No visible Device type Device name PV[Wp] 2 Image: Symo 3.0-3-S * Symo 3.0-3-S (2) * 3000 Back Forward | | | | Set all |
| 2 Symo 3.0-3-S * Symo 3.0-3-S (2) * 3000 Back Forward | 2 Symo 3.0-3-S Symo 3.0-3-S (2) 3000 Back Forward | No visible Dev | vice type | Device name | PV[Wp] Ġ |
| Back Forward | Back Forward | 2 🗹 Sym | no 3.0-3-S * | Symo 3.0-3-S (2) | * 3000 |
| | | | | Back | Forward |

In the section "Network setup" you can choose between 3 different connection modes.

- a) Local Network via Access-Point This should be just used if you don't have any internet and the customer wants to track the inverter with a direct connection from his device
- b) WIFI Using the Client's WIFI connection
- c) LAN Using a direct LAN cable connection

Recommendation: Deselect Fronius Solar. Web so you won't be asked to open a SOLAR.WEBaccount later on.

| Inverter Net | work setup Connection bu | |
|---|--|------------|
| Connection mode | WLAN Settings | |
| Local Network via Access-Point | Available networks | G |
| | WLAN-608374 Connected Protected WPA2 Channel: 1 | al. |
| Solar.web via WLAN | FLADUNG_OG | |
| • 📄 ((• 📖 🍈 | Protected, WPA2 Channel: 1 HP-Print-53-Officejet Pro 8600 | |
| | Protected, WPA2 Channel: 11 | |
| | Add WLAN | |
| | | |
| Fronius Solar.web | Set Delete Configure WLAN IF | `) |
| Send data to the Fronius Solar.web | | |
| Notification: Activating this setting will prevent power down | | |

Pressing the button "configure WLAN IP" will let you choose between static or dynamic IP

| System monitoring | 6 N en Fronius |
|------------------------------|--|
| Inverter | Network setup Connection buildup |
| Connection mode | WLAN Settings |
| Solar web via WLAN | WLAN-608374 Connected, Protected, WPA2 Channel: 1 |
| Configur | e WLAN IP |
| Get addr | ess |
| Host nam | e SymoHintenLink |
| Fronius Solar web | 35 192.168.2.105 WLAN IP |
| Subnet-n | lask 255.255.255.0 |
| Data logging during Gateway | 192.168.2.1 |
| during night-time hours. The | er 192.108.2.1 |
| longer be valid. | OK Cancel |
| | |

| Inverter | | Network | setup | | | | |
|--|---------------|-----------|------------------------------|--------------|-----------|---------|---------|
| Connection mode | | 1 | WLAN Settin | gs | | | |
| Local Network via | Access-Point | | Available ne | etwork | s | | G |
| | | | WLAN-60837 Connected, Pro | 4 otected | WPA2 Char | nnel: 1 | d l |
| Solar.web via WLA | N | | FLADUNG_O | G | | | |
| • [=] ((• d | Configure WLA | N IP | | | made 4 | | |
| | | | | | | | |
| Solar.web via LAN | Get address | O static | ø dynamic | | | | |
| ° 🕒 🗕 C | Host name | SymoHinte | nLink | | | | |
| | IP-Address | 192.168.2 | .105 | | | WLAN IP | |
| Fronius Solar.wet | Subnet-mask | 255.255.2 | 55.0 | | | | |
| Data logging during | Gateway | 192.168.2 | .1 | | | | |
| Notification: Activating this during night-time hours. The | DNS-Server | 192.168.2 | .1 | | | | |
| longer be valid | | | | | | - | Connect |

| System monitoring | | 6 en Fronius |
|--|--|---|
| Inverter | Network setup | Connection buildup |
| Connection mode Local Network via Access-Point Solar.web via WLAN Solar.web via WLAN Solar.web via LAN Solar.web via LAN | LAN Settings Get address Host name IP-Address Subnet-mask Gateway DNS-Server | O static • dynamic SymoHintenLinks 192.168.1.180 255.255.255.0 192.168.1.1 192.168.1.1 192.168.1.1 Static |

Note - Using Solar.web via LAN will let you choose between static or dynamic IP directly.

Press connect to connect the Data Manager will to the network.

| Inverter Netwo | ork setup Connection buildup | |
|---|---------------------------------------|-----|
| Connection mode | WLAN Settings | |
| | Available networks | 9 |
| | WLAN-608374 | |
| Salarwah via WI AN | Connected, Protected, WPA2 Channel: 1 | • |
| | Protected, WPA2 Channel: 1 | d I |
| • • • • • • | HP-Print-53-Officejet Pro 8600 | |
| | Protected, WPA2 Channel: 11 | |
| Solar.web via LAN | Add WLAN | |
| O C Network setup | | |
| Reconfigure network | e WIAN IP | |
| Fronius Solar.web | | |
| Send data to the Fron Data logging during nice | Cancel | |
| Notification: Activating this setting will prevent power down | | |
| during night-time nours. The setting "Nightmode" will therby no longer be valid. | Back Conne | ct |

Once the connection is successful the screen below will appear. Once this has been done, you will have to connect to the WIFI network of the customer again. By doing this, the IP-Address of the Fronius unit can be found.

If this doesn't work, then please check following:

- Has the WIFI Access-Point of the inverter deactivated automatically? If not, follow the same procedures to deactivate the setting.
- Check the switch on the data manager-card. It must be on position B
- The inverter might already be connected to the network but it is not stated. Search for the IP Address of the inverter



Once connected to the customer network again enter the data manager settings of the Fronius inverter using the IP 192.168.250.181 -

Once connected, you will be at the Solar.web wizard in the section "Network status".

| Connecti | on buildup | Network status | Passwords | |
|---------------|--|--------------------------------|---------------------|------|
| | | — | | |
| System | monitoring WLAN | | Internet | S |
| P-Address: | 192.168.2.105 | available: | Yes | |
| Network mask: | 255.255.255.0 | Name server: | 192.168.2.1 | |
| MAC address: | 00:06:C6:83:8E:6D | Gateway: | 192.168.2.1 | |
| SSID: | WLAN-608374 | | | |
| (1) | You are in configured ne the wizard now. | twork of the monitoring system | m. You can continue | vard |

Finish the setup with the entering a password. Please note that if you forget the password you'll have to call Fronius to get a new one.

| System monitoring | 6 en Franius |
|--|--|
| Network status | Passwords Finish |
| User name admin Old password * Password * Repeat password * | |
| Protect your system monitoring from unau nauthorized changes. | thorized read access. The Service password protects the system settings from |
| | |
| | Back Forward |
| | |

Once the setup is complete, you can click on "Homepage" and you'll be forwarded to the local configuration page.



Note: if the option "Send data to the Fronius Solar.web" hasn't been deselected, a login or Register to Solar.web will appear. This can be skipped by entering the IP-Address in the Address-bar.

| | i∎ en | Fronius |
|---|-------|---------|
| Fronius Solar.web account PV system | | |
| You already have a Fronius Solar.web account? Username Password Login | | |
| Don't have a Fronius Solar.web account yet? | | |
| | | |

Once the setup is complete, the following screen will appear. The Modbus can be changed to TCP in this menu.

- Go to settings
- Select Modbus
- Turn on TCP and hit Save.





To add the inverter to the EnergyManager

Add the Inverter to the devices within the EnergyManager

- → Get on the Energy Manager.
- ➔ Settings
- → Interfaces/Drivers
- ➔ Ethernet
- → Activate Sunpec [Fronius]
- ➔ Settings
- → Enter Fronius IP
- ➔ Devices
- ➔ Press + to install the inverter to the manager

| Settings » Interfaces » Drivers | |
|--|---------|
| Ethernet – SunSpec [Fronius] (ERC04-000003843): 1 Device | |
| Search | |
| NAME † | ACTIONS |
| pv-kage.fritz.box | |
| IP address Add | |
| Device reports error | |
| | |

Note:

The Fronius inverter shuts down itself every night after PV stops working. This includes the Data Manager. To reconnect with the inverter the Energy Manager will look for the same host-name forwarded by the router of the customer.

Some routers do not forward the host name. In such cases, you will only see the IP address of the unit. In this scenario, the Energy Manager will not reconnect when there is a change in IP. In this case, a Static IP has to be assigned to the inverter and this will resolve this issue.