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**Fronius Wattpilot Go 11/22 J
Fronius Wattpilot Home 11 J**

EN

Operating instructions

42,0426,0400,EN   005-12102021

Contents

Safety rules

Explanation of safety notices

⚠	**DANGER!**

Indicates immediate danger.
▶ If not avoided, death or serious injury will result.

⚠	**WARNING!**

Indicates a potentially hazardous situation.
▶ If not avoided, death or serious injury may result.

⚠	**CAUTION!**

Indicates a situation where damage or injury could occur.
▶ If not avoided, minor injury and/or damage to property may result.

NOTE!

Indicates a risk of flawed results and possible damage to the equipment.

General

Follow these Operating Instructions to ensure safe and proper use of the device. Keep for later reference.

The device has been manufactured in line with the state of the art and according to recognised safety standards. If used incorrectly or misused, however, it can cause:
- Serious or fatal injury to the operator or third parties
- Damage to the device and other material assets belonging to the operator

All personnel involved in commissioning, maintenance and servicing of the device must:
- Be suitably qualified
- Have knowledge of and experience in dealing with electrical installations and
- Read and follow these Operating Instructions carefully.

In addition to the Operating Instructions, all applicable local rules and regulations regarding accident prevention and environmental protection must also be followed.

All safety and danger notices on the device:
- Must be kept in a legible state
- Must not be damaged
- Must not be removed
- Must not be covered, pasted or painted over

Only operate the device when all connections and protection devices are fully functional. If the connections and protection devices are not fully functional, there is a danger of
- Serious or fatal injury to the operator or third parties
- Damage to the device and other material assets belonging to the operator

Any safety devices that are not fully functional must be repaired by an authorised specialist before the device is switched on.

Never bypass or disable protection devices.

For the meaning of the safety and danger notices on the device, refer to the section headed "Information on the device" in the Operating Instructions for the device.

Before switching on the device, remedy any faults that could compromise safety.

This is for your personal safety!

Environmental conditions

Operation or storage of the device outside the stipulated area will be deemed as not in accordance with the intended purpose. The manufacturer accepts no liability for any damage resulting from improper use.

Qualified personnel

The servicing information contained in these operating instructions is intended only for the use of qualified service engineers. An electric shock can be fatal. Do not carry out any actions other than those described in the documentation. This also applies to qualified personnel.

All cables and leads must be secured, undamaged, insulated and adequately dimensioned. Loose connections, scorched, damaged or inadequately dimensioned cables and leads must be immediately repaired by authorised personnel.

Maintenance and repair work must only be carried out by an authorised specialist.

It is impossible to guarantee that bought-in parts are designed and manufactured to meet the demands made on them, or that they satisfy safety requirements. Use only original spare parts (also applies to standard parts).

Do not carry out any alterations, installations, or modifications to the device without first obtaining the manufacturer's permission.

Components that are not in perfect condition must be changed immediately.

EMC measures

In certain cases, even though a device complies with the standard limit values for emissions, it may affect the application area for which it was designed (e.g. when there is sensitive equipment at the same location, or if the site where the device is installed is close to either radio or television receivers). If this is the case, then the operator is obliged to take appropriate action to rectify the situation.

Data protection

The user is responsible for the safekeeping of any changes made to the factory settings. The manufacturer accepts no liability for any deleted personal settings.

Copyright

Copyright of these operating instructions remains with the manufacturer.

The text and illustrations are all technically correct at the time of printing. We reserve the right to make changes. The contents of the operating instructions shall not provide the basis for any claims whatsoever on the part of the purchaser. If you have any suggestions for improvement, or can point out any mistakes that you have found in the instructions, we will be most grateful for your comments.

General information

General

Intended use

The Fronius Wattpilot Go 11 J/22 J is a mobile charging station for charging electric vehicles for connection to an AC/three-phase network.

The Fronius Wattpilot Home 11 J is a charging station for charging electric vehicles for fixed connection to an AC/three-phase network.

The Wattpilot may only be used for the purpose of charging battery-powered electric vehicles (BEV) and plug-in hybrid vehicles (PHEV) in conjunction with the appropriate adapters and cables.

Intended use also includes complying with all the instructions in the Operating Instructions.

The following circumstances are considered improper:
- Use other than or in excess of the intended use.
- Making any modifications to the Wattpilot that have not been expressly approved by Fronius
- Installation of components that are not distributed or expressly approved by Fronius.

The manufacturer shall not be liable for any damage resulting from such use. All warranty claims will be forfeited.

Symbols on the device

The symbols on the Fronius Wattpilot must not be removed or painted over. They warn against incorrect operation, as this may result in serious injury and damage.

Symbols on the rating plate:

CE mark
The devices conform to all the requisite and relevant standards and guidelines that form part of the relevant EU directive, and are therefore permitted to display the CE mark.

WEEE mark
To comply with Directive 2012/19/EU of the European Parliament on Waste Electrical and Electronic Equipment and its implementation as national law, electrical equipment that has reached the end of its life must be collected separately and returned to an approved recycling facility.

RoHS marking
The product is compliant with the relevant EU Directive on the Restriction of (the use of certain) Hazardous Substances in electrical and electronic equipment.

Symbols on front of the device:

Card reader
Symbol in relief in the housing of the Wattpilot. The symbol marks the location of the internal RFID card reader where ID chips can be authenticated or taught-in or the Wattpilot can be reset using the reset card.

Eco Mode
This symbol indicates operation in Eco Mode; the first LED lights up white.

Next Trip Mode
This symbol indicates operation in Betrieb im Next Trip Mode; the second LED lights up white.

Scope of supply

> **NOTE!**
>
> **Only use original miniature fuses and original adapter sets.**
> Device safety can only be guaranteed with an original miniature fuse. Common glass tube fuses can shatter.
> The CEE plugs of the adapter set differ from those of other suppliers due to their design with a reed contact.
> ▶ Use original miniature fuses.
> ▶ Use original adapter sets.

Fronius Wattpilot Go 11 J/22 J
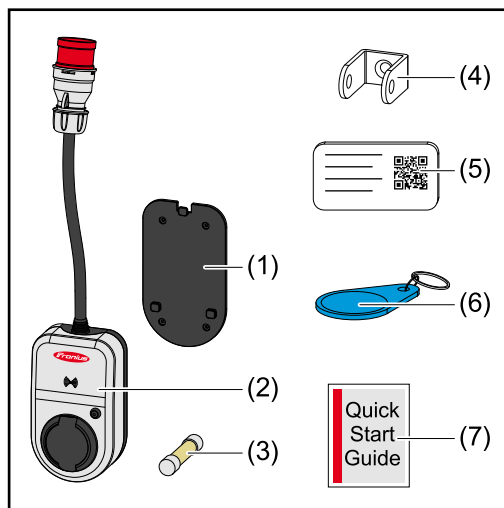
(1)	Mounting bracket, incl. screws and dowels
(2)	Wattpilot Go 11 J or Wattpilot Go 22 J
(3)	Miniature fuse (only use original miniature fuses)
(4)	Anti-theft device
(5)	Reset card
(6)	ID chip
(7)	Quick Guide

Optional
- Type 2 cable, 32 A, 22 kW, 5 m (item number 4,240,180)
- ID chips, 10 pieces (item number 4,240,181)
- Mounting plate Go, additional mounting bracket (item number 4,240,182)
- Adapter set Go 22 (item number 4,240,183), CEE adapter 32 A to
    - CEE plug red 16 A (3-phase)
    - CEE plug blue 16 A, camping plug (1-phase)
    - Earthed plug 16 A (household socket)
- Adapter set Go 11 (item number 4,240,184), CEE adapter 16 A to
    - CEE plug red 32 A (3-phase)
    - CEE plug blue 16 A, camping plug (1-phase)
    - Earthed plug 16 A (household socket)

Fronius Wattpilot Home 11 J
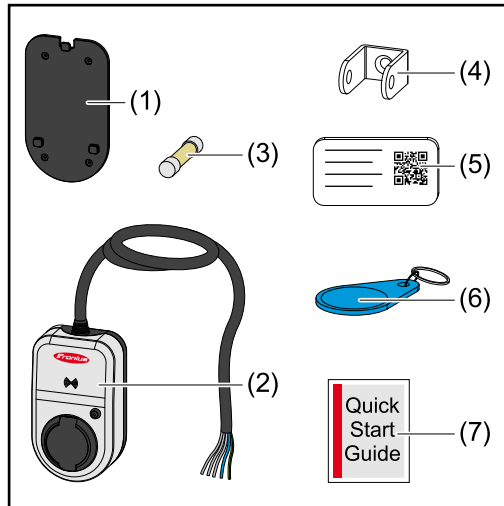
(1)	Mounting bracket, incl. screws and dowels
(2)	Wattpilot Home 11 J
(3)	Miniature fuse (only use original miniature fuses)
(4)	Anti-theft device
(5)	Reset card
(6)	ID chip
(7)	Quick Guide

Safety

⚠ **WARNING!**

Danger due to incorrect operation and incorrectly performed work.
This can result in serious injury and damage to property.
▶ Read and understand this document.
▶ Read and understand all the Operating Instructions for the system components, especially the safety rules.

⚠ **WARNING!**

Danger from electromagnetic fields (EMF) for persons with pacemakers and defibrillators!
This can result in serious injury.
▶ Persons with pacemakers must maintain a distance of at least 60 cm.
▶ Persons with defibrillators must maintain a distance of at least 40 cm.

⚠ **WARNING!**

Danger due to open or damaged housing!
This can result in severe personal injury and damage to property due to high voltage and/or sparking.
▶ Do not use the device if the housing is damaged or open.
▶ Send in the device for repair.

⚠ **WARNING!**

Danger from loose parts in the housing!
This can result in severe personal injury and damage to property due to high voltage and/or sparking.
▶ Do not use the device if there are loose parts in the housing.
▶ Send in the device for repair.

> ⚠️ **WARNING!**

Danger due to cables!
Damaged or exposed cables can result in severe personal injury and damage to property.
- ▶ Do not use the device if the cables attached to or plugged into the device are damaged.
- ▶ Adequately support the weight of the device and the charging cable.
- ▶ Lay the charging cable securely, provide mechanical relief for the cables.
- ▶ Lay the charging cable securely to avoid the risk of tripping over the charging cable.

> ⚠️ **WARNING!**

Danger due to wet or dirty connectors!
Charring caused by prolonged usage can result in severe personal injury and damage to property.
- ▶ Only mount the device vertically.
- ▶ Dry wet connectors in a de-energised state.
- ▶ Clean soiled connectors in a de-energised state.

> ⚠️ **WARNING!**

Danger from gassing vehicle batteries!
This can result in serious injury.
- ▶ Only use in well-ventilated areas.

> ⚠️ **WARNING!**

Danger from driving away with the charging cable connected!
This can result in severe personal injury or damage to property.
- ▶ Disconnect the charging cable from the electric vehicle before driving away.
- ▶ Do not bypass the safety device of the electric vehicle.

> ⚠️ **WARNING!**

Danger due to excessive load!
This can result in severe personal injury or damage to property.
- ▶ The load when operating the device with an earthed plug must not exceed 10 A.
- ▶ The earthed socket outlet must be suitable for continuous operation at 10 A.
- ▶ Check for heat generation after each use.
- ▶ The device and the sockets must not overheat.

> ⚠️ **CAUTION!**

Danger due to excessive charging current!
Fires or damage to the in-house installation may result.
- ▶ Observe the maximum permissible current at the connected socket.
- ▶ If the maximum charging current is not known, charge with the lowest possible charging current.
- ▶ An automatic reduction of the charging current to 16 A by plugging in the adapter is only possible in conjunction with the original adapters.
- ▶ Only use original adapters.

> ⚠ **CAUTION!**
>
> **Danger due to heat generation on the device!**
> The build-up of heat can lead to lasting damage and even fire.
> ► Never cover the device during charging.
> ► Unwind the cable completely from a cable drum.
> ► Observe the correct installation position.

Never pull the plug out of the plug connection by the cable!

Observe the specifications of the grid operator regarding 1-phase charging and the asymmetrical network load that may result.

The device has a built-in residual current protection module with residual current detection (30 mA AC and 6 mA DC). This means that no upstream type B RCD is required. A separate type A RCD and an automatic circuit breaker must be connected upstream for each Wattpilot.

The device may only be operated at the following connections:
- CEE red 32 A, 3-phase, 400 V (Wattpilot Go 22 J)
- CEE red 16 A, 3-phase, 400 V (Wattpilot Go 11 J)
- With original adapters:
    - CEE red 16 A, 3-phase, 400 V (Wattpilot Go 22 J)
    - CEE red 32 A, 3-phase, 400 V (Wattpilot Go 11 J)
    - CEE blue 16 A, 1-phase, 230 V
    - Earthed plug 16 A, 1-phase, 230 V

In case of defective adapters or defective CEE plugs, send the device in for repair.

Suitable inverters Compatibility with the connected devices, suitable data communication and a Fronius Smart Meter at the feed-in point are prerequisites for using some Wattpilot functions (e.g. PV surplus).

Suitable Fronius inverters
- Fronius GEN24
- Fronius Symo Hybrid
- Fronius SnapINverter (except light versions)
- Fronius IG*
- Fronius IG Plus*
- Fronius IG TL**
- Fronius CL*

*Requirement:
- Fronius Smart Meter
- Fronius Datamanager 2.0 (item number 4,240,036,z), or
- Fronius Datamanager Box 2.0 (item number 4,240,125)

**Requirement:
- Fronius Datamanager Box 2.0 (item number 4,240,125)

Suitable generators from third-party manufacturers
Suitable generators can be, for example, inverters or wind power plants. A prerequisite for compatibility with external generators is that no other self-consumption controllers (with e.g. battery, Power-2-Heat) are operated in parallel. This can lead to PV optimisation malfunctions. The proportion of energy consumed by other loads is not taken into account in the Fronius Solar.wattpilot app, as the power is only known at the grid connection point.
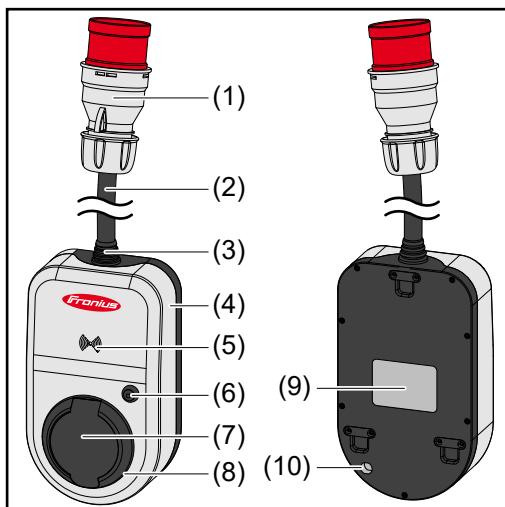
Requirement:
- Fronius Smart Meter (at the feed-in point)
- Fronius Datamanager Box 2.0 (item number 4,240,125)

For more information, see **Data communication with the inverter**.

Controls and indicators

Product overview

(1) CEE plug
(2) Connection cable
(3) Strain-relief device
(4) Housing
(5) Card reader
(6) Pushbutton
(7) Type 2 junction box
(8) LED ring
(9) Rating plate
(10) Miniature fuse (only use original miniature fuses)

Card reader

Behind the symbol (((•))) is the card reader for reading ID chips and the reset card.

The card reader uses RFID (radio-frequency identification). RFID is the transmitter-receiver technology for automatic and contactless identification with radio waves.

Pushbutton functions

By pressing the pushbutton, the level of charging current can be adjusted or the operating mode can be changed.

Press briefly (less than 0.5 s)

Briefly pressing the pushbutton changes the operating mode. The charging modes are Eco Mode and Next Trip Mode. The selected charging mode (see **Different charging modes**) is indicated by the LED status indicator (see **LED status indicator**).

Press and hold (more than 2.0 s)

Pressing and holding (min. 2 seconds) the pushbutton repeatedly changes the preset charging current (in amperes). The level of the set charging current is indicated by the LED status indicator (see **LED status indicator**).

The level of the preset charging current can be adjusted in the app (see **Current level**).

Standard settings
- Fronius Wattpilot Go 11 J/Home 11 J: 6 A, 10 A, 12 A, 14 A, 16 A
- Fronius Wattpilot Go 22 J: 10 A, 16 A, 20 A, 24 A, 32 A

ID chip

The ID chip can be used to personalise access to the Fronius Wattpilot. The ID chip is used for authentication and for recording user-specific charging amounts.

In the app settings, authentication for charging can be activated under "Access management" and "Authentication required" (see **Access management**). Charging with authentication activated can be carried out after scanning the supplied ID chip or by providing

confirmation in the app. To scan, hold the ID chip directly in front of the card reader of the Wattpilot.

Each ID chip can be assigned a name in the app under "ID chips". The stored charging amount per ID chip can be viewed in this menu (see **ID chips**).

No authentication is required in order to assign the charging amount to the ID chips.

Reset card

The reset card resets all settings (e.g. access management, WLAN and LED settings) to the factory settings. The taught-in ID chips and the corresponding charging amounts continue to be stored.

The following information is printed on the reset card.
- "Serial number" - serial number of the Wattpilot
- "Hot spot SSID" - WLAN network name of the Wattpilot
- "Hot spot key" - WLAN password of the Wattpilot
- "QR code" - key to connect the app to the Wattpilot hot spot

Resetting the Wattpilot

1 Hold the reset card in front of the card reader.

2 All LEDs briefly light up red.

NOTE!

Keep the reset card safe!
The reset card contains all access data.
▶ **TIP:** Keep the reset card in the car.

LED status indicator

The LED status indicator on the Wattpilot indicates whether the system is switched on and the current system status of the Wattpilot. One LED represents one ampere (1 A). A maximum of 32 A is displayed.
The first two LEDs indicate the currently active operating mode. If these do not light up white, the Wattpilot is in standard mode - charging takes place with the maximum set current without taking surplus PV electricity and flexible electricity tariffs into account.

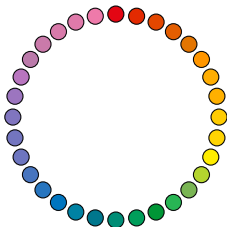|	**Eco Mode** The Wattpilot is in Eco Mode.
	- The first LED lights up white. - The first LED flashes orange (see chapter **Status Codes**). - The first LED flashes red (see chapter **Status Codes**).
	Next Trip Mode The Wattpilot is in Next Trip Mode.
	- The second LED lights up white. - The second LED flashes orange (see chapter **Status Codes**). - The second LED flashes red (see chapter **Status Codes**).

Starting

The Wattpilot is starting up or restarting.

- The LEDs light up in rainbow colours.
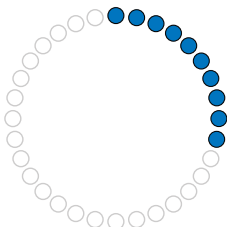
Ready

The Wattpilot is ready for operation. The number of LEDs that light up indicates the set charging current.
Each LED represents 1 ampere (A). A maximum of 32 A can be displayed, whereby the first two LEDs are reserved for the charging modes.

- A few blue LEDs light up = low charging current (e.g. 10 LEDs = 10 A).
- Several/all blue LEDs light up = high charging current (e.g. 32 LEDs = 32 A).
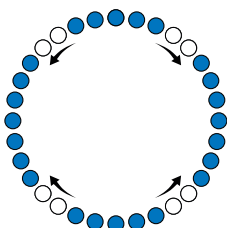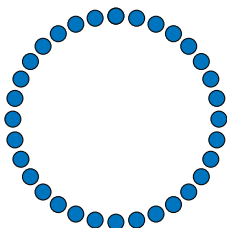
Enable

The Wattpilot must be activated via the app or an ID chip.

- The LEDs light up blue, four pairs of LEDs run in a quarter circle from the top and bottom towards each other.
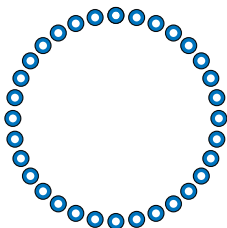
Waiting

The Wattpilot is waiting for cheap electricity from a photovoltaic system or electricity provider, or the charging timer is active.

- The LEDs flash blue in the number of amperes set.
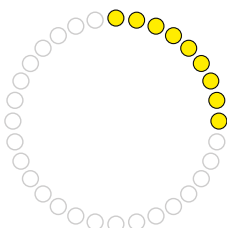
Wait for car

The Wattpilot recognises the connected vehicle and the set charging parameters. Charging has been enabled by the charging station but not yet started by the car.

- A few yellow LEDs light up when the charging current is low.
- Several/all yellow LEDs light up when the charging current is high.
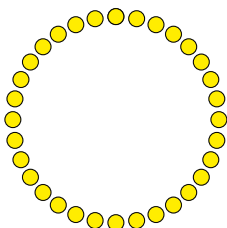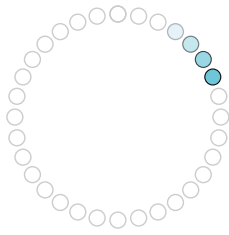
1-phase charging

The Wattpilot is carrying out 1-phase (230 V) charging with low to high charging current.

- One series of blue LEDs moves in a clockwise direction.
- The level of charging current is indicated by the number of LEDs and the speed of rotation.
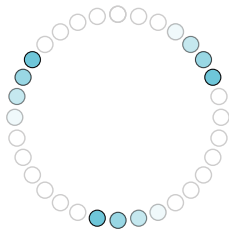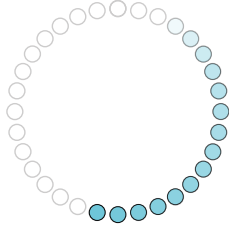
3-phase charging

The Wattpilot is carrying out 3-phase (400 V) charging with low to high charging current.

- Three series of blue LEDs move in a clockwise direction.
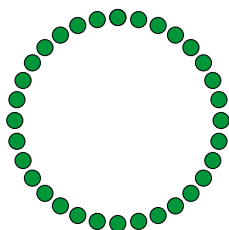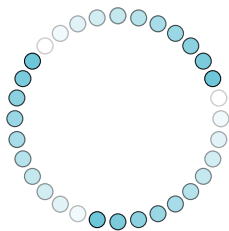
Charging finished

The charging process is complete.

- All LEDs light up green.
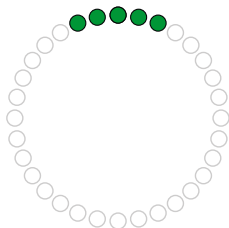
ID chip detected

The Wattpilot has detected an authorised ID chip.

- Five LEDs light up green.
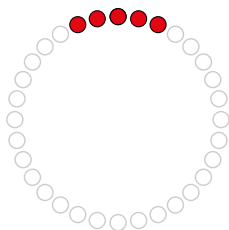
Invalid value

Wattpilot displays an invalid input. Pressing the push button was not permitted or an ID chip was detected but not authorised.

- Five LEDs light up red.
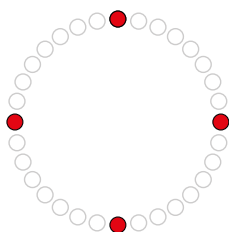
Earthing test deactivated
The earthing test is deactivated.

- Four LEDs light up at 3, 6, 9 and 12 o'clock.
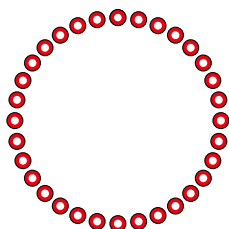
Internal communication fault
The Wattpilot displays an internal communication error. The error code is displayed in the app. For more information, see **Status Codes**.

- All LEDs flash red.
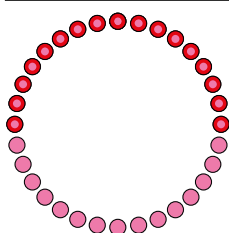
Residual current detected
The Wattpilot has detected a residual current ($\geq$ 6 mA$_{DC}$ or $\geq$ 30 mA$_{AC}$). Restart the Wattpilot. For more information, see **Status Codes**.

- The LEDs light up pink, the LEDs at the top flash red.
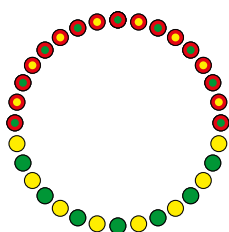
Earth fault detected
The earthing of the supply line to the Wattpilot is faulty. Check the earthing of the supply line. For more information, see **Status Codes**.

- The LEDs light up green and yellow, the LEDs at the top flash red.
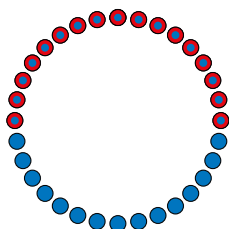
At least one phase of the power supply is missing
The phase(s) of the supply line to the Wattpilot has/have failed. Check the phase(s) of the supply line. For more information, see **Status Codes**.

- The LEDs light up blue, the LEDs at the top flash red.
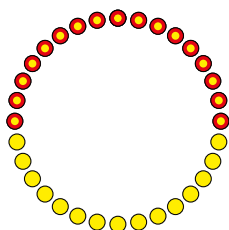
Temperature too high
The temperature of the Wattpilot is too high. The charging current is reduced. For more information, see **Status Codes**.

- The LEDs light up yellow, the LEDs at the top flash red.
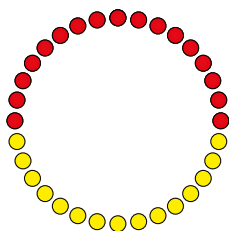
Unlocking or locking error
Unlocking or locking has failed. The unlocking or locking attempt is repeated at 5-second intervals. For more information, see **Status Codes**.

- The LEDs light up red at the top and yellow at the bottom for 1 second.
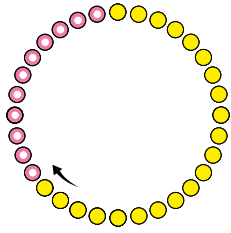
Update

The Wattpilot firmware is being updated. The update can take several minutes. Do not unplug the charging station.

- All LEDs flash pink, the progress of the update is indicated by yellow LEDs.
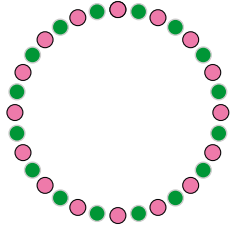
Update successful
- The LEDs light up alternately pink and green.
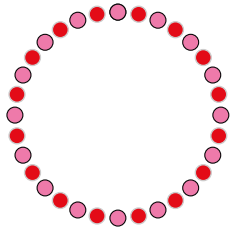
Update failed
- The LEDs light up alternately pink and red.
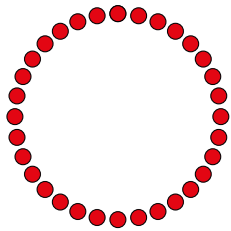
Reset card detected

The Wattpilot has detected the reset card and the settings are reset.

- All LEDs light up red for 2 seconds.

Functions

Overview

The Wattpilot can be used like any other charging station. For start-up, the charging cable must be plugged in and the Wattpilot starts charging. By pressing the pushbutton (see **Pushbutton functions**), it is possible to switch between the charging modes (see **Different charging modes**) and change the level of charging current (see **Current level**).

Phase changeover

The Fronius Wattpilot can automatically switch between 1-phase and 3-phase charging. The automatic phase changeover enables charging with a low start-up power (1-phase with 1.38 kWh) in the case of a PV surplus. In addition, 1-phase charging has the advantage that the charging power can be regulated in smaller increments (0.23 kW) and a small PV surplus can be used more efficiently. As 1-phase charging is limited by the car, it makes sense to switch to 3-phase charging at a higher PV surplus.

The phase changeover can be set automatically or manually (see **PV surplus**).

> **NOTE!**
>
> **Do not exceed the phase-load imbalance!**
> Select the phase changeover point in such a way that the maximum permissible phase-load imbalance is not exceeded.

PV surplus

> **NOTE!**
>
> **A minimum charging time of 5 minutes is stored.**
> To prevent permanent switching of the relays and to increase the service life of the Wattpilot, a minimum charging time of 5 minutes is stored.

The surplus energy of a PV system (photovoltaic system) can be used. The prerequisites for this are a compatible inverter in the same network as the Wattpilot and a Fronius Smart Meter (for more information, see **Data communication with the inverter**).

Setting limit values ensures that the available PV surplus power is distributed to the loads. The limit values created allow an energy storage system to be sufficiently charged or the energy to be stored in the form of hot water before the surplus PV power is used to charge a vehicle.

> **NOTE!**
>
> **PV surplus regulation.**
> One Wattpilot per photovoltaic system.
> ▶ The PV surplus regulation works with one Wattpilot per photovoltaic system.
> ▶ If several Wattpilots are connected to one inverter, "Use PV surplus" may only be activated on one Wattpilot. For all other Wattpilots, "Use PV surplus" must be deactivated (for more information, see **Cost optimisation**).

It is possible to set a **start-up power level** (specified in kW). This must be reached by the photovoltaic system before the Wattpilot starts charging the car with the minimum current.

It is possible to set a **3**-**phase power level** (specified in kW). This must be reached by the photovoltaic system before the Wattpilot switches from 1-phase to 3-phase charging.

The settings for the start-up power level and 3-phase power level can be made under **Cost optimisation** in the **Fronius Solar.wattpilot app**.

The power level can only be regulated in increments of 1 ampere. The table below lists the charging current in amperes (A) and the corresponding charging power for 1-phase and 3-phase charging in kilowatts (kW). 1-phase in 0.23 kW increments, 3-phase in 0.69 kW increments. The values are based on the assumption that the voltage is exactly 230 or 400 V.
- Example: The charging current is increased by 1 A to 7 A.
    - 1-phase: 1.38 kW + 0.23 kW = 1.61 kW
    - 3-phase: 4.14 kW + 0.69 kW = 4.83 kW

Charging current (A)	6	8	10	12	14	16	20	24	32
1-phase (kW)	1.38	1.84	2.3	2.76	3.22	3.68	4.6	5.52	7.36
3-phase (kW)	4.14	5.52	6.9	8.28	9.66	11	13.8	16.56	22

Example
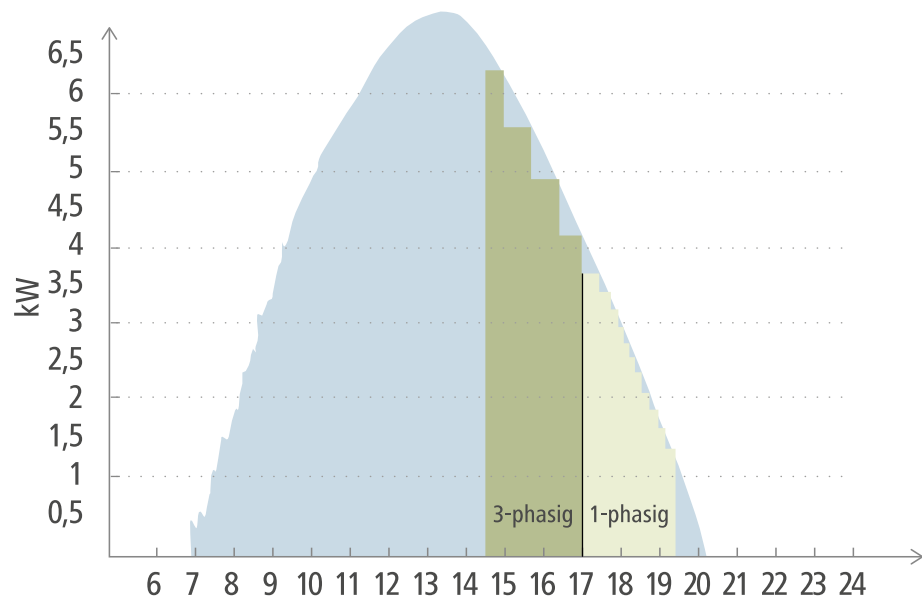
Photovoltaic generation

Electric vehicle

The figure illustrates the behaviour of the Wattpilot with a set start-up power level of 1.38 kW and a 3-phase power level of 4.14 kW. If the PV surplus is less than 1.38 kW, the vehicle is not charged.

If the PV surplus is between 1.38 and 4.14 kW, the Wattpilot regulates the charging power in ***0.23 kW*** *increments.*
If the PV surplus is above 4.14 kW, the Wattpilot switches from 1-phase charging to 3-phase charging and regulates the charging power in ***0.69 kW*** *increments.*

> **NOTE!**
>
> **The minimum charging power of electric vehicles is usually 1.38 kW.**
> In the case of smaller photovoltaic systems, it may make sense to set the start-up power level below 1.38-kW so that sufficient energy is charged. The electricity that is not covered by the photovoltaic system, however, is drawn from the grid. This results in a power mix of self-consumption and grid supply.
> ▶ A start-up power level below 1.38 kW results in a power mix.

Charging with PV surplus can be activated and adjusted in the Fronius Solar.wattpilot app (see **Cost optimisation**).

Priorities in the system between battery, Ohmpilot and Wattpilot

The priority of the Wattpilot can be influenced via the "PV battery limit value" and "Ohmpilot limit value" settings in the Fronius Solar.wattpilot app (see chapter **Cost optimisation**). Depending on the level of the selected limit values, it is possible to define under which conditions the charging of the electric vehicle starts. The temperature limit value of the Ohmpilot can only be used if a temperature sensor is connected to the Ohmpilot. To set the Wattpilot priority, the energy management priority settings on the website for the inverter must also be taken into account.

> **NOTE!**
>
> If no temperature sensor is connected to the Fronius Ohmpilot, a temperature of 0 °C is assumed. If the Wattpilot is to be prioritised over the Ohmpilot, set the "Ohmpilot limit value" to 0 °C. In the event of a sensor break, the Ohmpilot is supplied with power before the Wattpilot.

Example: Charging the electric vehicle first

The electric vehicle must always be charged with PV surplus before the battery and the Ohmpilot. In the Solar.wattpilot app, the limit value for the battery is set to 0% and the limit value for the Ohmpilot is set to 0 degrees. The electric vehicle is immediately charged with PV surplus, regardless of the state of charge of the battery or the temperature of the Ohmpilot.

- **System with inverter, Wattpilot, battery and Ohmpilot**

Priority in the inverter	Wattpilot	Battery**	Ohmpilot
Battery** > Ohmpilot	Priority 3 until SOC* and temperature limit value reached, then 1	Priority 1 until SOC*, then 2	Priority 2 until temperature limit value reached, then 3
Ohmpilot > Battery**	Priority 3 until SOC* and temperature limit value reached, then 1	Priority 2 until SOC*, then 3	Priority 1 until temperature limit value reached, then 2

- **System with inverter, Wattpilot and Ohmpilot**

Priority in the inverter	Wattpilot	Ohmpilot
Ohmpilot	Priority 2 until temperature limit value reached, then 1	Priority 1 until temperature limit value reached, then 2

- **System with inverter, Wattpilot and battery**

Priority in the inverter	Wattpilot	Battery**
Battery**	Priority 2 until SOC*, then 1	Priority 1 until SOC*, then 2

*SOC - State of Charge of the stationary battery
**Fronius-compatible DC coupled battery

NOTE!

The component with the highest priority in the inverter is taken into account.
If, for example, a battery in the inverter is prioritised higher than an Ohmpilot and the battery limit value is set to 50% and the Ohmpilot limit value is set to 50 °C, the Wattpilot will start charging when the battery reaches 50% SOC. The Ohmpilot is not supplied with energy until the electric vehicle and battery are fully charged.

IMPORTANT!
The energy management with the digital outputs (I/Os) on the Fronius inverter **must not** be used for load management of the Wattpilot! The priorities of the loads are not clearly assigned.

Flexible electricity tariff

The flexible electricity tariff can be used if electricity is purchased from electricity retailers and charged for hourly via the electricity exchange, e.g.
- Lumina Strom hourly (available in Germany, as at 01/03/2021) or
- aWattar hourly (available in Austria and Germany, as at 01/03/2021).

The Wattpilot queries the retailer tariffs directly via the Internet. It is possible to specify a price threshold (Eco Mode price limit) below which charging starts. This is the pure electricity price, without network charges or other fees.

Example

The following figure shows the electricity price of an electricity retailer (Lumina Strom hourly, aWattar hourly) over 24 hours. The hourly tariffs are retrieved from the electricity exchange at a specific time for the next day.
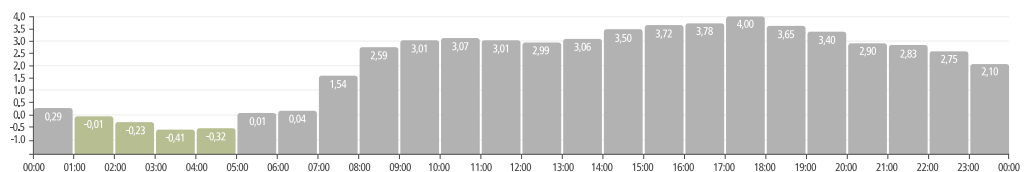
Information regarding electricity retailers with a flexible electricity tariff can be found under
- **Lumina Strom hourly** (as at 01/03/2021)
- **aWattar hourly** (as at 01/03/2021)

Different charging modes

Standard mode

In standard mode, charging takes place at the preset amperage (e.g. 16 A). The level of charging current can be changed in increments by pressing the pushbutton on the Watt-pilot. In the app (see **Current level**), the charging current can be adjusted in 1 ampere increments.

In standard mode, no operating mode LEDs light up.

Whereas charging at a low charging current is gentle, charging at a high charging current enables rapid charging. If necessary, charging is carried out with electricity sourced from the grid.

> **NOTE!**
>
> **Standard mode**
> Standard mode is the standard setting of the Wattpilot; no LEDs light up white. In this charging mode, the PV surplus and the flexible electricity tariff are not taken into account.
> ▶ No further settings are required for standard mode.

Eco Mode

In Eco Mode, a vehicle is only charged when low-cost electricity is available. Charging can either take place with cheaply purchased electricity (see **Flexible electricity tariff**) or surplus energy produced by the photovoltaic system (see **PV surplus**). There is no guarantee that charging will occur.

Prerequisite
Charging in Eco Mode is only possible if **PV surplus** and/or a **Flexible electricity tariff** is activated under **PV surplus** in the Fronius Solar.wattpilot app.

> **NOTE!**
>
> **Charging not possible.**
> If there is no surplus generated power or cheap electricity available, charging is not carried out in Eco Mode.
> ▶ Change mode for guaranteed charging.

Enable
Eco Mode can be configured in the app under **Cost optimisation** and activated by pressing the pushbutton (< 0.5 s) or via the Fronius Solar.wattpilot app.

> **NOTE!**
>
> **The battery of the photovoltaic system is discharged first!**
> If the system contains a stationary battery, the battery of the photovoltaic system is discharged when the electricity price falls below the threshold before mains current is drawn.

Example

▇ (blue)	Photovoltaic generation
▇ (green)	Electric vehicle
▇ (grey)	Household consumption
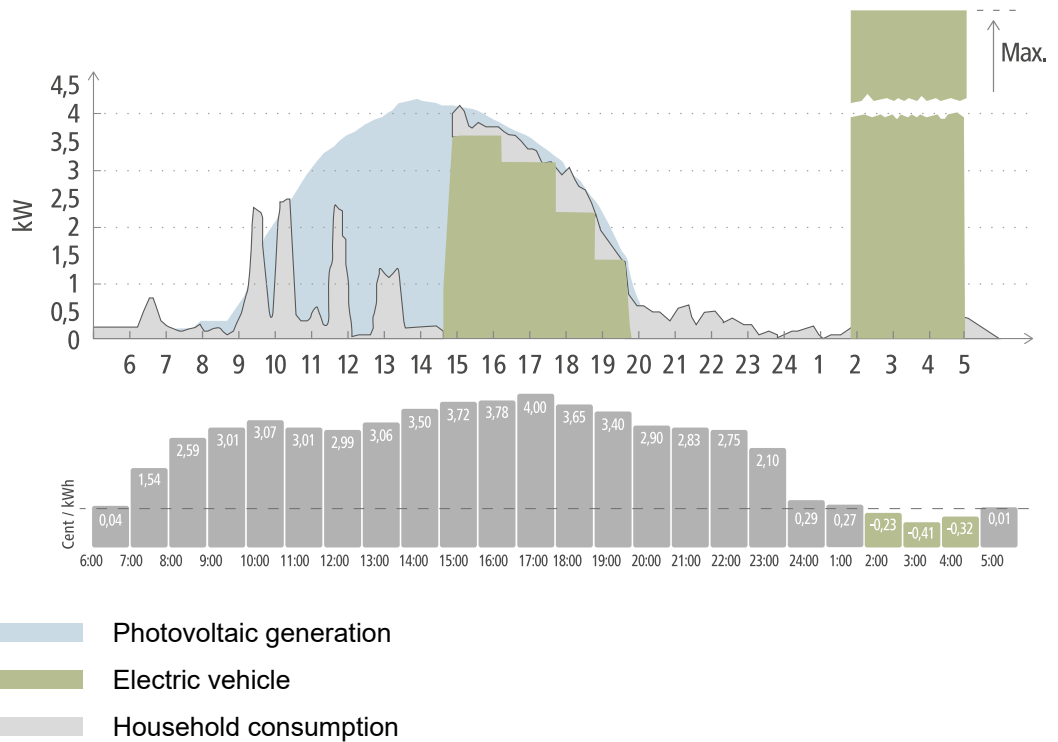
In Eco Mode, the electric vehicle is connected to the Wattpilot at around 15:00, as although a fixed additional range for the electric vehicle is not necessary, cheaper electricity is to be used for charging. In the Fronius Solar.wattpilot app, the PV surplus and/or flexible electricity tariff must be activated and set under Cost optimisation. Household consumption is covered by photovoltaic generation and the electric vehicle is charged with the PV surplus. Charging takes place using the PV surplus until around 20:00. Between 02:00 and 05:00, the electricity price falls below the defined price limit. The electric vehicle is charged with cheap electricity during this period.

Charging in Eco Mode

PV surplus	Price limit	Wattpilot
No	No	No charging
No	Yes	Max. charging
Yes	No	Charging with PV surplus
Yes	Yes	Max. charging

Next Trip Mode

In Next Trip Mode, a vehicle is charged as cheaply as possible until the end of the self-selected time with the set charging amount. The time charging starts is selected in such a way that the desired charging amount is charged at least one hour before the charge end. Charging takes place in the cheapest cost window. The PV surplus and flexible electricity tariff settings are taken into account. If the "Stay in Eco Mode" function (for activation see **Next Trip Mode**) is activated, the Wattpilot continues charging with low-cost energy after the set charging amount has been reached.

The set charging amount is charged in addition to the charging amount available in the electric vehicle. The charging amount is specified in kilometres and calculated on the basis of an average consumption (18 kWh/100 km). External conditions (season, driving

speed, car model, etc.) may cause deviations in the actual range. When setting the charging amount, the actual state of charge of the electric vehicle battery is not read out.

The mode can be set under "Next Trip Mode" in the Fronius Solar.wattpilot app (see **Next Trip Mode**).

After activating the mode, charging is started briefly to calculate a charging schedule taking into account the possible charging power. If no flexible electricity tariff is activated, charging is started at the latest possible time in order to charge with a possible PV surplus and to conserve the battery of the electric vehicle. If no time is provided for the calculation of the charging schedule, charging starts immediately.

> **NOTE!**
>
> **Internet connection required if a flexible electricity tariff is activated!**
> If the flexible electricity tariff is activated in Next Trip Mode and there is no connection to the electricity provider's data, the Next Trip Mode LED flashes red. Charging starts in order to reach the set charging amount.

If the charging cable is disconnected and reconnected while Next Trip Mode is activated, the calculation is repeated and the set charging amount is charged in addition to the existing charging amount. Changes to the settings of the Fronius Solar.wattpilot app result in a recalculation of the charging schedule. If the change is made during Next Trip Mode charging, the range charged up to this point is added to this.

If "Stay in Eco Mode" is activated, the cost optimisation settings are also taken into account in Next Trip Mode.

> **NOTE!**
>
> **The battery of the photovoltaic system is discharged first!**
> If the system contains a stationary battery, the battery is discharged before mains current is drawn.

> **NOTE!**
>
> **Orange flashing LEDs if the charging amount cannot be reached or stored!**
> If the set charging amount cannot be charged in the specified time or if the car cannot store the set charging amount, the LEDs flash orange.
> ▶ Reduce the charging amount or extend the charging time.

Example
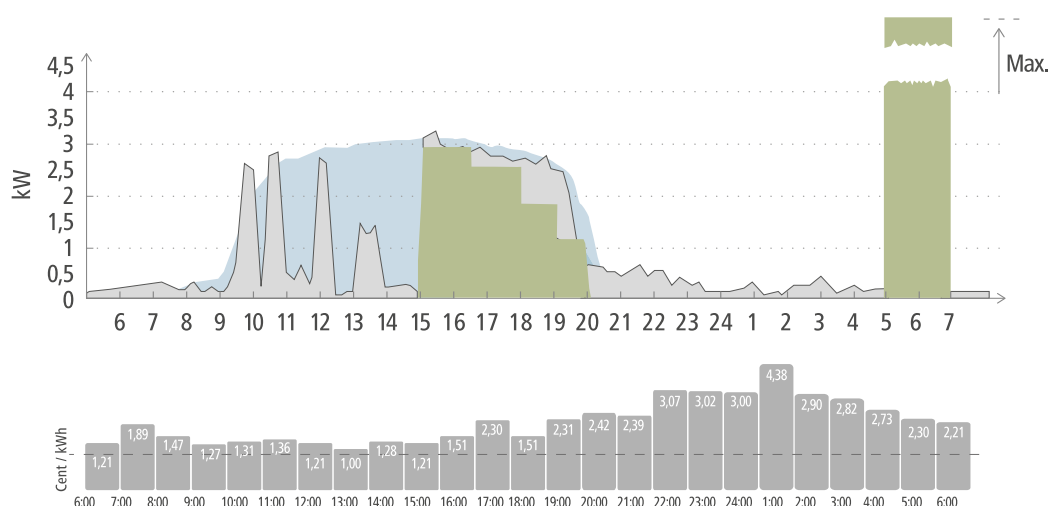
	Photovoltaic generation
	Electric vehicle
	Household consumption

The daily journey to work and back home is 50 km and must start at 08:00. In the Fronius Solar.wattpilot app, the kilometres and the departure time must be entered once under Next Trip Mode. 18 kWh is used as the basis for the calculation of 100 km. The electric vehicle is plugged in and charged at approximately 15:00. If PV surplus is available, charging is carried out with PV surplus. The remaining charging amount is guaranteed to be charged in the electric vehicle at the latest possible time. The charge is calculated in such a way that it is completed at the latest one hour before departure.

> **NOTE!**
>
> **If there is sufficient energy in the electric vehicle, it is better to use Eco Mode zu.**
> If the electric vehicle is sufficiently charged, Eco Mode is the better choice.
> ▶ Change to Eco Mode (see **Eco Mode**).

Installation and commissioning

Installation location and position

Choice of location

The following criteria must be taken into account when choosing a location.
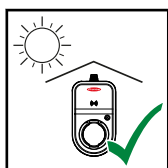
 The Wattpilot is suitable for outdoor operation without direct sunlight.

 The Wattpilot is suitable for operation in a well-ventilated indoor area.

 Do not operate the Wattpilot in areas with increased danger as a result of ammonia gases.

The Wattpilot is suitable for operation indoors and outdoors.

Environmental conditions
- Indoors and outdoors, no direct sunlight, suspended
- Ambient temperature: -25 °C to +40 °C
- Humidity: 5% to 95%
- Height above sea level: 0 m to 2000 m

⚠ **CAUTION!**

Beware of warping of the mounting bracket on uneven surfaces.
An uneven surface can cause the mounting bracket to warp, making it impossible to attach the Wattpilot.
▶ Select a suitable location on an even surface.

Installation position
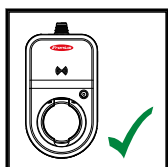
 The Wattpilot is designed to be installed vertically on a vertical, level wall.
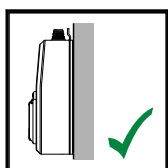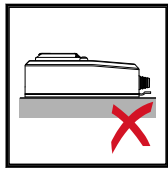
	Do not install the Wattpilot horizontally.
	Do not install the Wattpilot on a sloping surface.
	Do not install the Wattpilot on a sloping surface with the connection facing down.
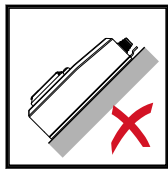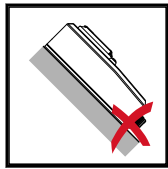
⚠ **CAUTION!**

Danger due to heat generation on the device!
The build-up of heat can lead to lasting damage and even fire.
▶ Never cover the device during charging.
▶ Unwind the cable completely from a cable drum.
▶ Observe the correct installation position.

NOTE!

The type 2 plug is not waterproof.
Water can penetrate when the Wattpilot is mounted horizontally.
▶ Mount the Wattpilot vertically.

Wall mounting

Mounting the Wattpilot on the wall

When mounting the mounting bracket, ensure that it is not warped or deformed. The following illustrations may differ slightly from the actual product; the Wattpilot Home 11 J does not have a mains plug.
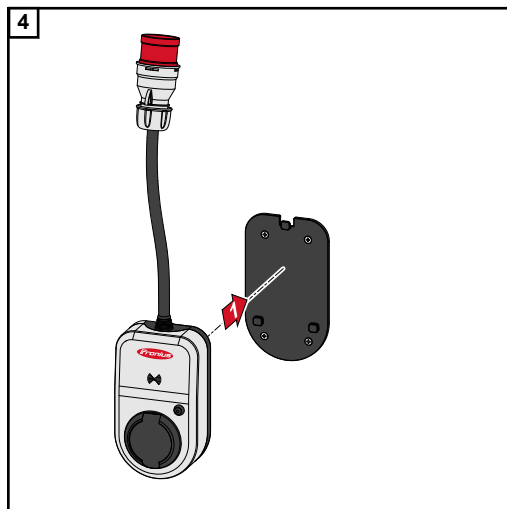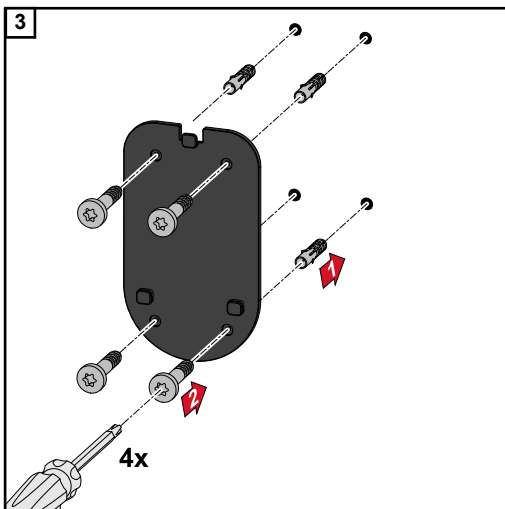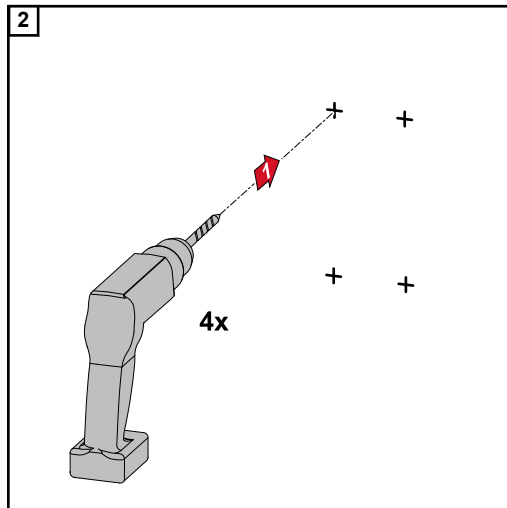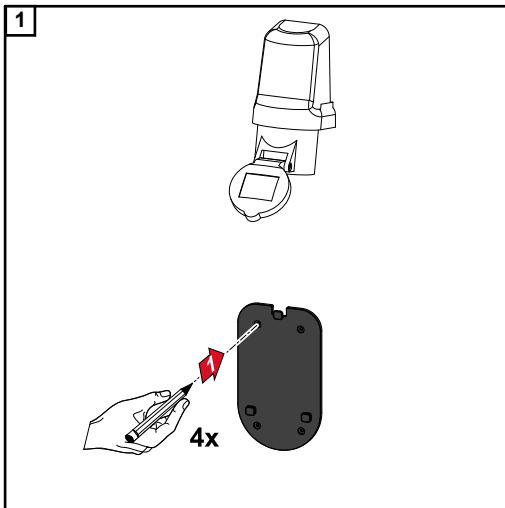
Connecting the Wattpilot

General information

⚠ **CAUTION!**

Installation and commissioning may only be performed by a qualified electrician.
Requirements for the qualification of electricians - knowledge and observation of the 5 safety rules for working on electrical systems.
▶ Disconnect.
▶ Ensure the device cannot be switched back on.
▶ Ensure the system is no longer live.
▶ Carry out earthing and short-circuiting.
▶ Cover nearby live components or make them inaccessible.

NOTE!

Duty to inform the grid operator!
▶ Check with the grid operator whether there is a duty to inform in the country of destination and, if necessary, report the Wattpilot to the grid operator.

Installing the Wattpilot HOME 11 J

When installing the Wattpilot HOME 11 J, the mains cable must be installed by a qualified person in accordance with national standards. The fuse protection for the mains lead must be dimensioned in accordance with the device technical data.

⚠ **WARNING!**

Danger from mains voltage!
An electric shock can be fatal.
▶ Always make sure the circuit is disconnected and de-energised before carrying out any connection work.
▶ The connection may only be established by an authorised electrician.
▶ Observe the national standards.
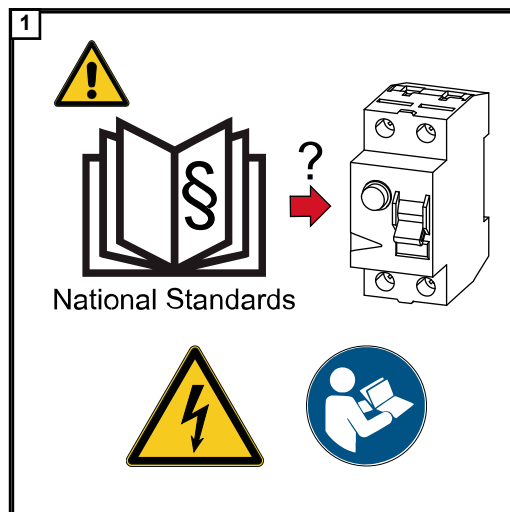
Disconnect the circuit from the power supply before carrying out any connection work.
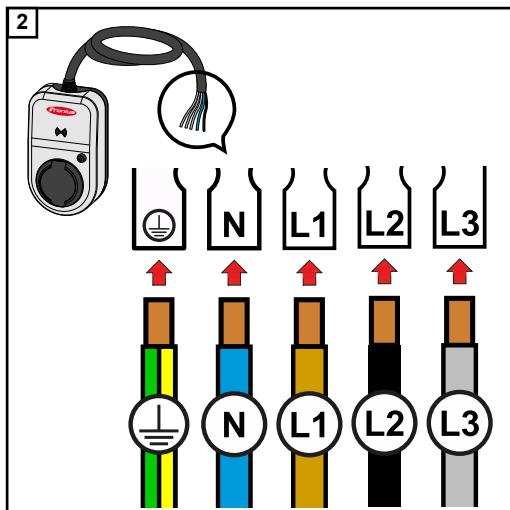
Have the 5-pin mains cable connected by an authorised electrician in accordance with national standards and safety rules. Depending on the available mains supply type, opt for a 1- or 3-phase connection.

NOTE!

For 1-phase operation, phase L1 must be used.
▶ To supply power to the Wattpilot, phase L1 must be connected. The unused phases L2 and L3 must be isolated (contact protection)!

Backup power mode

NOTE!

It is advisable to connect the Wattpilot outside the backup power loads of a photovoltaic system!
If the charging current per phase cannot be covered by the backup power, the Wattpilot must be connected outside the backup power loads. A Fronius inverter is required for backup power mode.

If the Wattpilot is connected in the backup power circuit of a photovoltaic system and the total current of one phase is exceeded as a result, the inverter switches off the backup power. The electric vehicle must be unplugged and the backup power acknowledged (see inverter Operating Instructions).

IMPORTANT!
It is important to check whether the electric vehicle allows charging at 53 Hz.

Start-up   Start up the permanently installed Wattpilot Home 11 J from step 2.
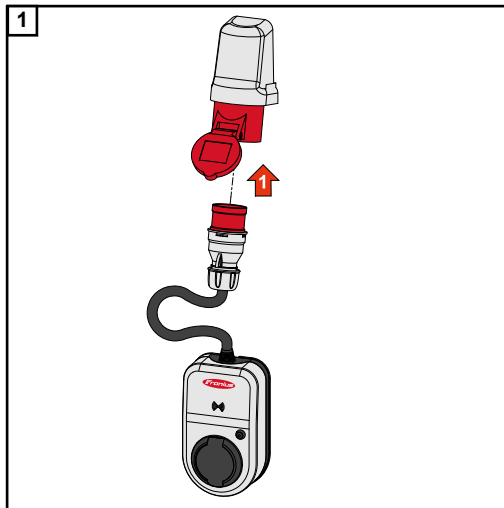
Connect the CEE plug to a suitable socket directly or with a suitable adapter.

The LEDs light up in the rainbow colours during an initial self-test. Afterwards, the number of LEDs corresponding to the set charging current light up blue.

2 Set the desired charging current by pressing the pushbutton. One illuminated LED on the LED ring represents one ampere (1 A). A maximum of 32 A (Wattpilot Go 22 J) or 16 A (Wattpilot Go 11-J or Wattpilot Home 11 J) is displayed. The level of the charging current can be individually adjusted in the app between 6 and 16 or 32 A (see chapter **Current level**)
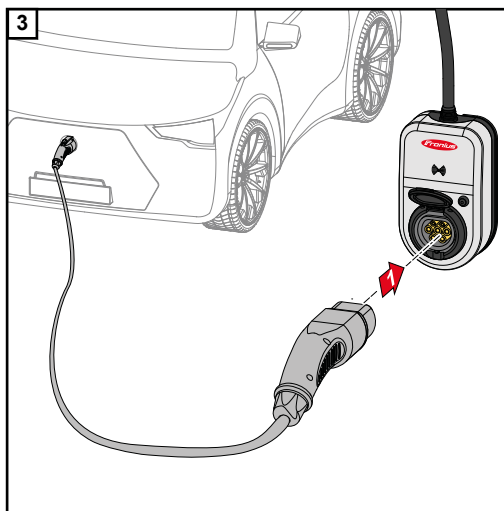
Connect a Type 2 to Type 2/Type 1 charging cable to the Wattpilot and the car.

During a test, all LEDs light up yellow.

The charging process is started with a clicking sound from the Wattpilot and indicated by the switching of the LEDs.

For more information on LED status indicators, see chapter **LED status indicator**.

The vehicle is charging.

Stopping charging

The charging process is terminated by the vehicle. This is normally the case when the vehicle's battery is fully charged. By default, the charging cable remains locked to the Wattpilot after charging is complete until the cable is disconnected from the vehicle (anti-theft protection, see chapter **Cable release**).

Aborting the charging process prematurely
- In the vehicle via the "cable release" function
- In the app by clicking on "Stop" (see chapter **Homepage**).

NOTE!

The way in which the cable is released can be configured in the app.
If the power supply is interrupted, the charging cable remains locked in the Wattpilot for reasons of theft protection. The cable release can be activated in the app under "Unlock in case of power failure".
▶ Restore the power supply to the Wattpilot to unlock the charging cable.
▶ Configure the cable release in the app.

Data communication with the inverter

Charging with PV surplus (see **PV surplus**) is possible with a supported Fronius inverter to which a primary Fronius Smart Meter is connected. As soon as an inverter is in the network, the Wattpilot automatically connects once with the first inverter that is found.

Another inverter can be coupled via the Fronius Solar.wattpilot app (see **Cost optimisation**).

Prerequisites
-    The inverter is supported and has a suitable data interface (see **Suitable inverters**).
-    The Wattpilot and the inverter are in the same network.
-    A primary Fronius Smart Meter (at the feed-in point) must be connected to the inverter. If there are several inverters with primary Fronius Smart Meters in the network, only one of them may be coupled.

Fronius Solar.wattpilot app

Overview

General   The Fronius Solar.wattpilot app can be used to start up, configure, operate, visualise and update the Wattpilot. The app is available for Android™ (Android is a trademark of Google LLC) and iOS®.

The app enables the Wattpilot to be accessed directly (see **Setting up a hot spot**) or worldwide via the Internet (see **Setting up the WLAN**).

Download   The Fronius Solar.wattpilot app is available on the respective platform depending on the end device with which the Wattpilot is operated. The app can be updated on the respective platform.

Download the app via

Connecting via WLAN

Launching the app

1. Open the Fronius Solar.wattpilot app on the end device and follow the Setup wizard.
2. Read and accept the terms of use.
3. Click on "Connect".

> **NOTE!**
>
> **Request on iOS.**
> Access for the Fronius Solar.wattpilot app must be allowed for end devices with an iOS operating system.
> iOS settings > Privacy > Local network > Fronius Solar.wattpilot > Allow access to local network

Setting up a hot spot

The Wattpilot permanently opens a hot spot.

1. Scan the QR code on the reset card or connect the end device to the WLAN hot spot (the password can be found on the reset card) of the Wattpilot (e.g. Wattpilot_12345678).
2. Follow the further instructions in the app.

> **NOTE!**
>
> **Request on Android.**
> The selected WLAN of the Wattpilot must remain connected despite the absence of an Internet connection for end devices with an Android operating system.

Setting up the WLAN

1. Select WLAN and enter the password.

> **NOTE!**
>
> **It can take up to 1 minute to establish the connection!**
> If the signal strength is low, a WLAN repeater must be installed, for example.

2. Follow the further instructions in the app.

Adding a Wattpilot

New or connected Wattpilots can be added in the Fronius Solar.wattpilot app.

1. Click on the "+" symbol.
2. Click on "Add" for the connected Wattpilot.
3. Follow the further instructions in the app.
   - See **Setting up a hot spot**
   - See **Setting up the WLAN**

Charging

Homepage

The figure below shows the "Charging" homepage of the Fronius Solar.wattpilot app.
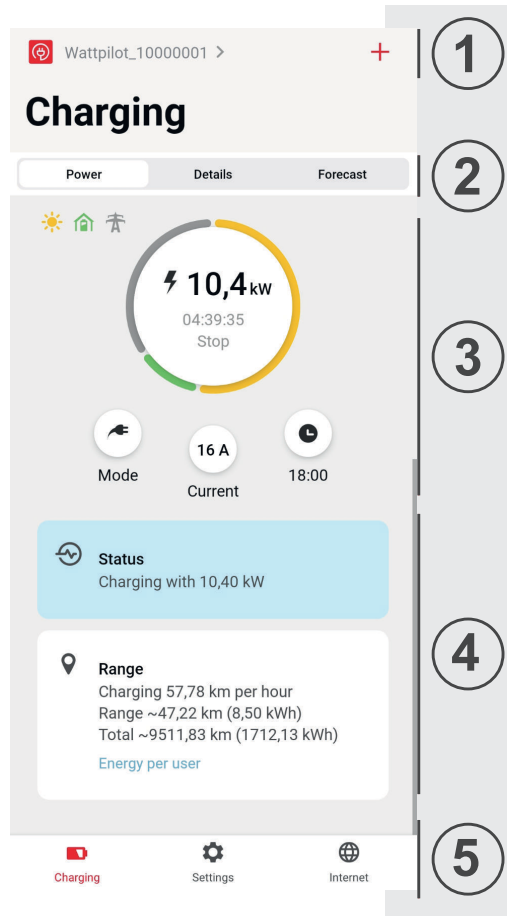
(1) The "Select Wattpilot" page can be accessed by tapping the app icon. A new Wattpilot can be added by pressing the "+" icon.

(2) The following views can be displayed in the main window:
- "Power"
- "Details"
- "Forecast"

(3) In the "Power" view, the current charging current and the charging time are displayed. The charging process can be started and stopped by tapping the circle. By tapping the circular buttons below, the pages for the "Mode", the set "Charging current" or the "Next Trip Mode" settings can be accessed.

(4) Details of the current charging process are displayed under "Status" and "Range".

(5) The following pages can be called up:
- "Charging"
- "Settings"
- "Internet"

Energy per user

Under "Range", a list showing the consumption of the registered ID chips can be called

up via "Energy per user". By entering "Total", the list can be downloaded as a .csv file. The following data is displayed in the file:

- Number: Sequential number of the session.
  A session is the period of time between connecting and disconnecting the charging cable.
- Session ID: Unique identification number.
- ID chip: Indicates the registered ID chip. No entry if loaded without ID Chip.
- Proportion from Eco Mode [%]: Proportion of the charged energy from Eco Mode as a percentage [%].
- Proportion from Next Trip Mode [%]: Proportion of the charged energy from Next Trip Mode as a percentage [%].
- Start: Start date and time from which the charging cable is connected.
- End: End date and time when the charging cable is disconnected.
- Duration: Period of time during which the Wattpilot is in use.
- Charging time: Indicates the period of time during which energy was being charged into the electric vehicle.
- Max. power [kW]: Indicates the maximum power in kilowatts [kW] reached during charging.
- Max. current [A]: Indicates the maximum current in amperes [A] reached during charging.
- Energy [kWh]: Indicates the charged energy in kilowatt hours [kWh].
- Proportion from PV [kWh]: Proportion of the charged energy in kilowatt hours [kWh] provided by PV surplus.
- Proportion from battery [kWh]: Proportion of the charged energy in kilowatt hours [kWh] provided by a stationary battery.
- Meter reading [kWh]: Indicates the total charged energy in kilowatt hours [kWh].

Settings

Current level	Five different current levels can be set. The current levels are selected from Level 1 (gentle) to Level 5 (rapid) by pressing the push button on the Wattpilot. Adjust the desired levels by clicking in the respective field.

Lock current level selection
This setting can be used to lock the push button (key) on the Wattpilot. Locking the push button prevents accidental changing of the current level.

Absolute maximum
This setting is used to adjust the maximum charging current of the Wattpilot. Higher charging currents can no longer be selected.

NOTE!

The infrastructure is not known!
If charging in an unknown infrastructure, always charge with the lowest charging current (e.g. 6 A or 10 A).
▶   Charge with the lowest charging current.

NOTE!

Increase the service life of the battery.
A slow charge with a low amperage is gentler on the battery of the electric vehicle. This can extend the service life of the battery.
▶   Charge with a low charging current.

Next Trip Mode	Charging is carried out as cheaply as possible using surplus PV current (see **PV surplus**) and a flexible electricity tariff (see **Flexible electricity tariff**).

1   Under "Settings", click on the "Next Trip Mode" button.
2   Specify the "Minimum amount of charging" in kilometres (km) or kilowatt-hours (kWh).
-    100 km correspond to 18 kWh as standard. The actual consumption over 100 km varies from vehicle to vehicle and can be adjusted under "Consumption over 100 km".
3   Enter the time by which charging must be complete.

Activating "Next Trip Mode"
-    Directly on the Wattpilot by pressing the push button (see **Pushbutton functions**).
-    In the app, under "Charging", click on the "Mode" button and activate "Next Trip Mode".

Activating "Remain in Eco Mode"
After reaching the set range, the Wattpilot switches from Next Trip Mode to Eco Mode. Charging continues with the Eco Mode settings.

Cost optimisation	Under "Cost optimisation", the consideration of the electricity tariff (see **Flexible electricity tariff**) and the use of PV surplus (see **PV surplus**) can be activated. The settings listed below can also be customised.

Use Lumina Strom / aWattar
Activation or deactivation of flexible electricity tariffs.

Eco Mode price limit
When a flexible electricity tariff is activated in Eco Mode, charging does not start until the set electricity price is below this value. If the electricity price is above this value, charging does not take place.

> **NOTE!**
>
> In Next Trip Mode, it is not this value that is taken into account but the most favourable charging times in the available time period.

Use PV surplus
The Wattpilot uses the surplus PV energy for charging.

Inverter
Selection of a coupled inverter.

PV battery threshold
If a battery is installed in the photovoltaic system, a limit value can be set here. Below the set value, the battery is charged as a priority. Above this value, the energy of the battery is used to charge the car. The SOC of the battery may still slowly increase.

Ohmpilot threshold
If a Fronius Ohmpilot is installed in the photovoltaic system, a limit value for the temperature can be set here. Below the set value, the available energy is prioritised for heating. Above this value, the heating power of the Ohmpilot is used to charge the car. The temperature may still slowly increase.

> **NOTE!**
>
> To use the function with an available Fronius Ohmpilot, a temperature sensor must be connected to the Ohmpilot.

PV surplus
In the advanced settings, a start-up power level can be set from which the PV energy is used for charging. Electric vehicles require a certain minimum power in order to charge.
-   **Starting power level:** If "0" is set, the Wattpilot will start charging even if no PV surplus is available.

In the case of **Zero feed-in**, no PV current is fed into the grid. If zero feed-in is activated in the inverter, it must also be activated in the Wattpilot.

> **NOTE!**
>
> **Priorities with zero feed-in activated.**
> If zero feed-in is activated, the prioritisation of system components cannot be guaranteed. PV optimisation control may be restricted.

Deviations may occur when using PV surplus, as electric vehicles are regulated in stages. The following settings can be made under Control response:
-   **Prefer from grid**: The Wattpilot prioritises consumption over feed-in from the grid.
-   **Default**: The Wattpilot enables both consumption and feed-in.
-   **Prefer to grid**: The Wattpilot prioritises feed-in over consumption from the grid.

Car
With intelligent charging, the charging process can be interrupted or the charging current reduced in order to meet certain charging conditions. Car-specific settings must be specified for smooth smart charging.

NOTE!

The electric vehicle is not listed - select standard charging behaviour.
If the electric vehicle to be charged is not listed, no specific charging behaviour is known. All defaults can be customised.
▶ Select the standard charging behaviour.

- **Choose car:** The optimised standard settings of different car models can be activated under "Select car".
- **Minimum current:** Some cars will not resume charging after an interruption. To prevent an interruption, the minimum charging current can be set.
- **Forced charging interval:** In the case of cost-optimised charging, the Wattpilot interrupts the charging process if the electricity price is too high. Some cars will not tolerate interruptions and will not continue charging after prolonged interruptions to the charging process. In this case, the charging process must be started regularly for a short time.
- **Allow charging pause:** Some cars will not resume charging after an interruption. Charging interruptions are prevented if this option is deactivated.
- **Simulate unplugging:** Some cars need to be disconnected for a while if there has been an interruption during cost-optimised charging. This function simulates a disconnection before charging continues.
- **Minimum charging time:** Set the minimum time for which the car must be charged after charging starts.
- **Choose phase switch:**
  - **Automatic:** A power level can be set, from which 3-phase charging takes place. If "0" is set, the Wattpilot immediately starts 3-phase charging.
  - **Only 1-phase:** There is 1 phase available for charging.
  - **Only 3-phase:** There are 3 phases available for charging.
- **3-phase power level:** Set a power level that must be reached by the photovoltaic system before the Wattpilot switches from 1-phase to 3-phase charging. If the available power is greater than the set value, the Wattpilot immediately activates 3-phase charging. Automatic switching can be deactivated in the car settings.

Charging timer

The "Charging timer" setting limits charging to specific times. A start and end time must be specified for this. Several time windows can be set. The following can be set:
- The time (start and end time) and
- The days of the week.

NOTE!

Verhalten bei aktiviertem Eco Mode or Next Trip Mode:
If charging is not allowed by the charging timer for a certain period of time, Eco Mode and Next Trip Mode are also blocked for this period.
If the charging timer does allow charging in a certain period of time but the settings for Eco Mode or Next Trip Mode are not met, charging will not occur.

Brightness

Set LED brightness values. By activating "Switch off LEDs after 10 s in standby", the LEDs on the device are switched off after 10 seconds in standby.

LED colours

Customise LED colours.

Time zone

Set the time zone. Activating "Automatic summer time changeover" automatically sets the summer and winter time.

Access management

In the "Access management" menu, it is possible to set whether charging is started automatically or after confirmation.

Open
The charging process is started automatically after connecting the cables.

Authentication required
Charging will only start after confirming in the app or scanning the supplied ID chip. To scan, hold the ID chip in front of the card reader on the Wattpilot. If authentication is successful, 5 LEDs light up green.

Cable release

Standard mode
The charging cable at the charging station remains locked after completion of the charging process until the charging cable is disconnected from the vehicle (anti-theft protection).

Auto-unlock
The charging cable is only locked during charging. This allows another user to disconnect the cable when the car is full in order to use the Wattpilot.

Always locked
The cable on the Wattpilot is always locked and can only be removed by changing the mode. This mode is intended for permanently installed systems (e.g. in the carport).

Unlock during power outage
If this function is activated, the charging cable is unlocked in the event of a power failure. By default, the charging cable remains locked in the event of a power failure for reasons of theft protection. To unlock the charging cable, the Wattpilot must be supplied with power again.

Earthing test

Activation or deactivation of the earthing test. It is necessary to deactivate the earthing test in insulated grids in certain countries (e.g. Norway) where earthing cannot be detected.

ID chips

Up to 10 ID chips can be used. The ID chip is used for authentication and for recording user-specific charging amounts.

> **NOTE!**
> One ID chip can be taught in for several Fronius Wattpilots.

Learn ID chip

1 Place the ID chip on the card reader of the Wattpilot.

2 Click on "Teach in ID chip" in the app.

Renaming an ID chip

1 Tap the corresponding entry.

2 Enter the desired name and tap "Save".

> **NOTE!**
>
> The ID chips and the charging amount remain stored in the event of a reset.

Password

The password protects against unauthorised access to the Wattpilot.

Password guidelines
- At least 10 characters
- At least three of the following four strings: Upper case letters, lower case letters, numbers, special characters
- No umlauts (ä, ö, etc.)
- No paragraph sign (§)

Internet

Firmware update The current firmware of the Wattpilot is loaded via the Internet. The "Internet" menu shows which firmware version is installed and whether an update is available.

Firmware update

1 Click on "Update available".

2 Click on "Update".

> **NOTE!**
>
> After a firmware update, check whether the Fronius Solar.wattpilot app also needs to be updated.

The Fronius Solar.wattpilot app can be updated via the respective platform (Google Play, App Store).

Appendix

Technical data

Technical data

Fronius Wattpilot	Go 11 J	Go 22 J	Home 11 J
Max. charging power	11 kW	22 kW	11 kW
Mains supply types	TT / TN / IT		
Mains connection	CEE plug, red, 16 A, 5-pin incl. neutral conductor	CEE plug, red, 32 A, 5-pin incl. neutral conductor	5-pin cable without plug
Optional adapter set	CEE plug, red, 32 A (3-phase fused) CEE plug, blue, 16 A camping plug (1-phase) Earthed plug, 16 A (household socket)	CEE plug, red, 16 A (3-phase) CEE plug, blue, 16 A camping plug (1-phase) Earthed plug, 16 A (household socket)	-
Nominal voltage	230 V (1-phase) / 400 V (3-phase)		
Nominal current (configurable)	6 - 16 A 1-phase or 3-phase	6 - 32 A 1-phase or 3-phase	6 - 16 A 1-phase or 3-phase
Grid frequency	50 Hz		
Power consumption	1.9 W (LED dark), 4.2 W (LED bright)		
Charging socket	Type 2 infrastructure socket with mechanical lock		
Residual current device	30 mA$_{AC}$/6 mA$_{DC}$		
Supply line cable cross-section	Min. 2.5 mm^2	Min. 6 mm^2	Min. 2.5 mm^2
RFID (radio frequency identification)	13.56 MHz		
WLAN	IEEE 802.11b/g/n | 2.4 GHz channel 1-13 (2412 - 2472 MHz) | max. 19.29 dBm		
Protection class	IP 54 (IP 44 with Type 2 cable plugged in)		
Impact resistance	IK08		
Dimensions (width x height x depth)	14.6 x 25.1 x 9.6 cm		
Weight	1.6 kg	1.9 kg	1.9 kg

Environmental conditions

Use	Indoors and outdoors No direct sunlight
Installation type	Suspended
Ambient temperature	-25 to +40 °C
Storage temperature	-40 to +85 °C
Average ambient temperature over 24 hours	Max. 35 °C

Fronius Wattpilot	Go 11 J	Go 22 J	Home 11 J
Humidity	5 - 95%		
Height above sea level	0 - 2,000 m		

Residual current detection

The tripping characteristics of the residual current detection are as follows.

- max. normative DC
- max. normative AC
- typ. DC of sensor
- typ. AC of sensor
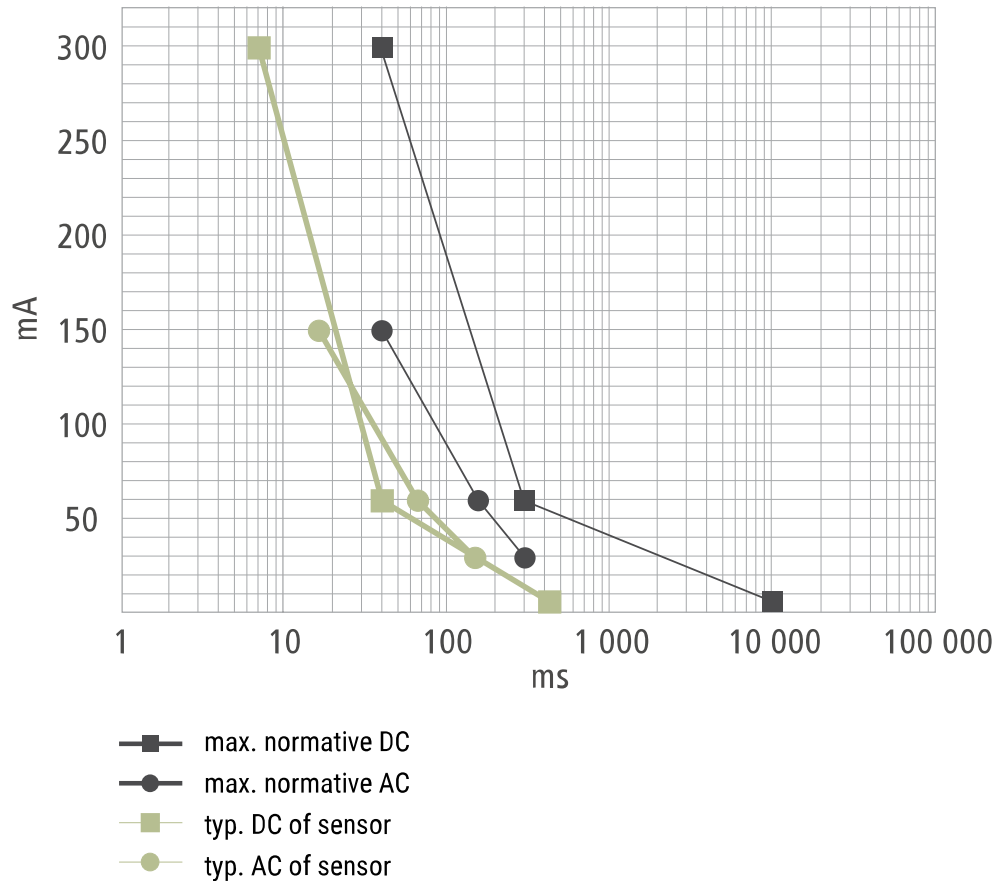
Spare parts

- Miniature fuse, ceramic with sand filling, 5 x 20 mm.

Safety functions

- RFID access control (ID chip, reset card)
- Theft-proof charging socket lock
- Cable protection (lock not included)
- Residual current device with DC detection, 30 mA$_{AC}$, 6 mA$_{DC}$
- Phase and voltage testing of the input voltage
- Auxiliary contact on the relays for checking the switching function
- Earthing detection (can be switched off, Norway mode)
- Current sensor, 3-phase
- Miniature fuse for internal electronics (trips if supply line is connected incorrectly, only use original miniature fuses)
- Adapter recognition with automatic reduction to 16 A (Wattpilot Go 22 J)
- Temperature monitoring

Standard settings   The Wattpilot works with the following standard settings during start-up, without making any further settings in the Fronius Solar.wattpilot app. The standard settings can be restored with the reset card.

Wattpilot	Go 11 J	Go 22 J	Home 11 J

Charging mode

Eco Mode	Off		
Next Trip Mode	Off		

Current level

	Go 11 J	Go 22 J	Home 11 J
Alle Stufen aktivieren	On		
Level 1 (gentle)	6 A	10 A	6 A
Level 2	10 A	16 A	10 A
Level 3	12 A	20 A	12 A
Level 4	14 A	24 A	14 A
Level 5 (rapid)	16 A	32 A	16 A
Absolute maximum	16 A	32 A	16 A

Next Trip Mode

Minimum range (km)	100 km (18.00 kWh)		
Ready until (time)	06:00		
Stay in Eco Mode	On		

Cost optimisation

Use Lumina Strom / aWattar	Off		
Region	Germany		
Eco Mode price limit	3 cents		
Use PV surplus	On		
Inverter	First found, otherwise empty		
PV battery limit value	20%		
Ohmpilot limit value	20 °C		

PV surplus

Start-up power level	1.40 kW		
Zero feed-in	Off		
Control response	Standard		

Car

Select car	Standard charging behaviour		
Minimum current	6 A		
Allow charging pause	On		

Wattpilot	Go 11 J	Go 22 J	Home 11 J
Select phase switching	Automatic		
3-phase power level	0.00 kW		
Forced charging interval	0 min.		
Simulate disconnection	Off		

Charging timer   Charging timer deactivated

Brightness

Brightness	Max.
Switch off LEDs after 10 s in standby	Off

LED colours

Ready	R = 0, G = 0, B = 255
Charging	R = 0, G = 255, B = 255
Done	R = 0, G = 255, B = 0

Time zone

Time zone	GMT+1:00 ECT European Central Time
Automatic changeover to daylight saving time	On
Current time	Automatic

Access management   Open

Cable release

Cable release	Standard mode
Unlock in case of power failure	Off

Earthing control   Activated

ID chip   Supplied ID chip is taught in

Additional settings

WLAN activated	On
Allow Internet connection	On

Status codes and remedy

Status Codes

Due to phase, voltage and switching function checks of the Fronius Wattpilot, a charging operation may be rejected.

The status codes are displayed via the LED status indicator (see **LED status indicator**) directly on the Wattpilot and in the app under "Status".

---

1 - Fault current detected (LEDs light up pink, the LEDs at the top flash red)

Cause: The residual current device has detected an error.

Remedy: The charging equipment in the vehicle may be defective. Have the charging equipment checked by a specialist.

Remedy: Disconnect and reconnect the charging cable.

---

3 - At least one phase of the power supply is missing (the LEDs light up blue, the LEDs at the top flash red)

Cause: The device is only being supplied with 2 phases.

Remedy: Make sure that phase 2 and phase 3 are connected correctly. Option: a supply via phase 1 only is possible.

---

8 - Grounding fault detected (the LEDs light up green and yellow, the LEDs at the top flash red)

Cause: Grounding fault detected.

Remedy: Check that the connection is properly grounded.

---

10 - Relay fault detected

Cause: The relay has not switched.

Remedy: Disconnect the power supply to the device for 5 seconds.

---

11 - Backup power mode detected

Cause: 53 Hz mains current detected.

Remedy: Observe the instructions in the Operating Instructions.

---

12 - Type 2 plug locking failed

Cause: The plug locking system does not work.

Remedy: Remove possible foreign parts in the plug housing.

Cause: Type 2 plug not fully inserted.

Remedy: Insert the type 2 plug into the device as far as it will go until you hear a click.

---

13 - Type 2 plug unlocking failed

Cause: The electric vehicle is plugged in.

Remedy: Unplug the electric vehicle.

Cause: "Always locked" under "Cable release" in the Solar.wattpilot app is activated.

Remedy: Deactivate "Always locked" under "Cable release" in the Solar.wattpilot app.

Cause: Release jammed.

Remedy: Insert the type 2 plug into the device as far as it will go until you hear a click. If the problem has still not been fixed: Press the push button on the device. If the problem has still not been fixed: Activate and save "Always locked" in the Solar.wattpilot app, then activate and save "Standard mode" under "Cable release".

100 - Internal communication error (all LEDs flash red)

Cause: Device is not sending data.

Remedy: Disconnect and reconnect device.

Remedy: Perform a firmware update.

Remedy: Return device.

---

101 - Temperature too high (the LEDs light up yellow, the LEDs at the top flash red)

Cause: Continuous load. Incorrectly installed cables.

Remedy: Disconnect device and allow to cool down.

---

105 - No data available on the flexible electricity tariff (first or second LED - Eco Mode or Next Trip Mode - flashes red)

Cause: Flexible electricity tariff cannot be called up.

Remedy: Check WLAN and Internet connection.

Remedy   Wait until the server is available again.

---

109 - No connection to the inverter (first or second LED - Eco Mode or Next Trip Mode - flashes red)

Cause: The connection to the inverter cannot be established.

Remedy: Check the network settings.

Remedy: Check the settings of the inverter.

---

114 - For Eco Mode, PV surplus or flexible electricity tariff must be activated (Eco Mode LED flashes orange)

Cause: Eco Mode is selected and the "Use PV surplus" and "Use Lumina Strom / aWattar" settings are disabled.

Remedy: Activate the setting "Use PV surplus" and/or "Use Lumina Strom / aWattar".

Remedy: Change the mode.

Cause: "Use Lumina Strom / aWattar" is enabled and there is no data connection to the Internet. Cached price data is still available.

Remedy: Check the network settings.

---

115 - The set amount of energy cannot be reached in the specified time (second LED - Next Trip Mode - flashes orange)

Cause: The specified time is not sufficient for the desired amount of energy.

Remedy: Extend the specified time for charging.

Remedy: Reduce the desired amount of energy.

---

116 - Update of flexible electricity tariffs failed (first or second LED - Eco Mode or Next Trip Mode - flashes orange)

Cause: The connection cannot be established.

Remedy: Check the network settings.

The charging operation cannot be started, but all LEDs show the ready colour (default blue).

Cause: The vehicle is not being detected.

Remedy: Check vehicle cable and fit of charging plugs

No LEDs light up after plugging in.

Cause:	No power on the junction box.
Remedy:	Check the overload fuse of the connection.
Cause:	Miniature fuse defective.
Remedy:	Check the miniature fuse on the rear of the device. If it has melted, the power connection may not be installed properly. Check the polarity of the power connection before starting another test with a new miniature fuse. Use original miniature fuses only.
Cause:	The brightness of the LEDs has been set to 0.
Remedy:	Increase the brightness of the LEDs in the Fronius Solar.wattpilot app.
Cause:	"Switch off LEDs after 10 s in standby" has been enabled.
Remedy:	Deactivate "Switch off LEDs after 10 s in standby" or press the push button on the Wattpilot.

Warranty terms and conditions, and disposal

Fronius manufacturer's warranty
Detailed, country-specific warranty conditions are available on the internet
www.fronius.com/solar/garantie

Disposal
The manufacturer, Fronius International GmbH, will take back the old device and arrange for it to be recycled in an appropriate manner. Observe the national regulations for the disposal of electronic equipment.

fronius.com/en/solar-en-
ergy/installers-partners/
products-solutions/moni-
toring-digital-tools

**MONITORING &
DIGITAL TOOLS**

Under www.fronius.com/contact you will find the adresses
of all Fronius Sales & Service Partners and locations.