

FRONIUS E-MOBILITY SOLUTION

With Fronius inverter, Fronius Wattpilot and Fronius Smart Meter

THE ADVANTAGES AT A GLANCE:

- / PV system and electric car pay for themselves more quickly
- / Low-cost electricity for the electric car
- / Increased PV self-consumption rate
- / Less energy sourced from the grid
- / Dynamic use of the PV surplus

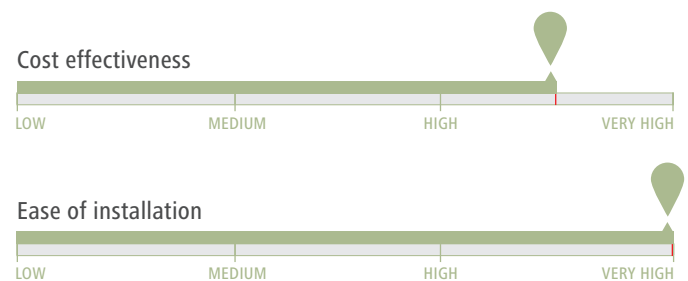
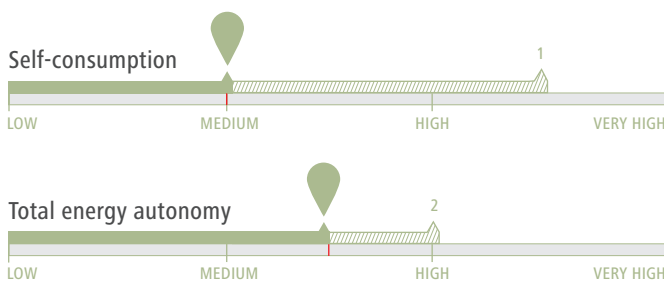


- 1 Fronius inverter
- 2 Fronius Smart Meter
- 3 Fronius Wattpilot

PHOTOVOLTAICS WITH E-MOBILITY – THE PERFECT COMBINATION

In most cases, the mobility sector is the most energy-intensive. It therefore makes sense for PV system owners to electrify this sector and switch to an electric car, or for existing electric car owners to invest in a PV system for greater benefits.

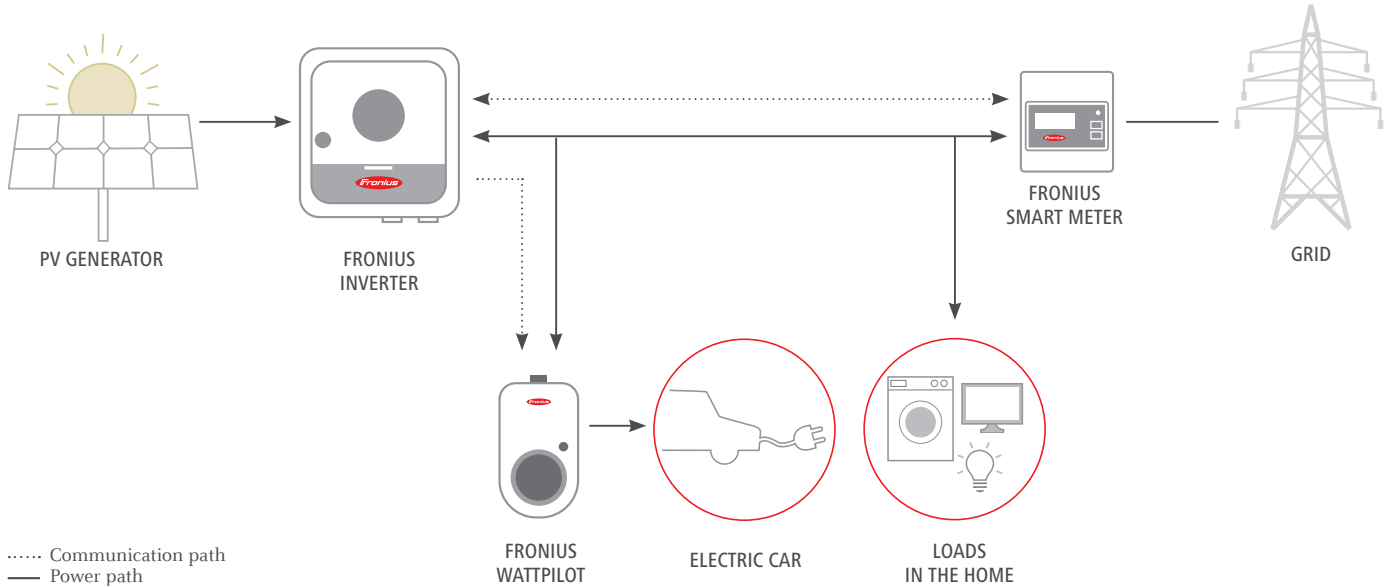
The Fronius Wattpilot is a PV-optimised charging solution and can charge the car particularly cost-effectively and sustainably with surplus PV energy in ampere increments. This results in a win-win situation: cheap charging of the electric car, a higher rate of PV self-consumption and faster payback of the PV system costs.



¹ Depending on the battery capacity of the electric car

² Depending on heat generation in the household and annual mileage

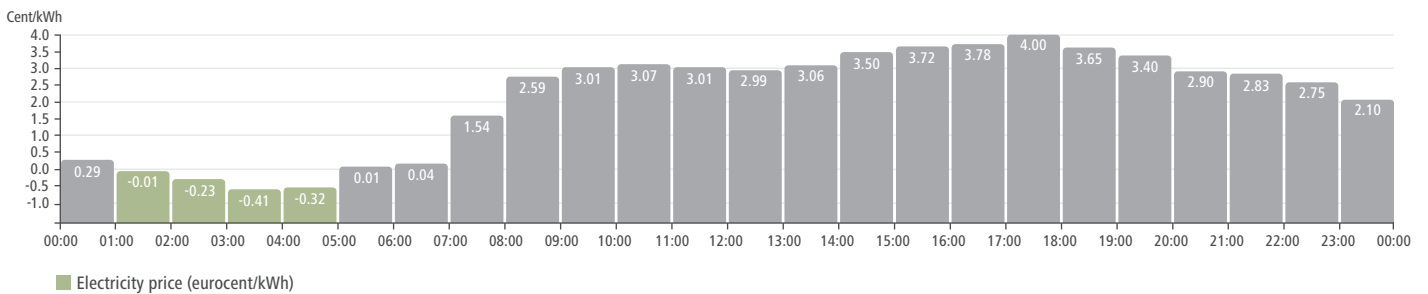
CONFIGURATION DIAGRAM:



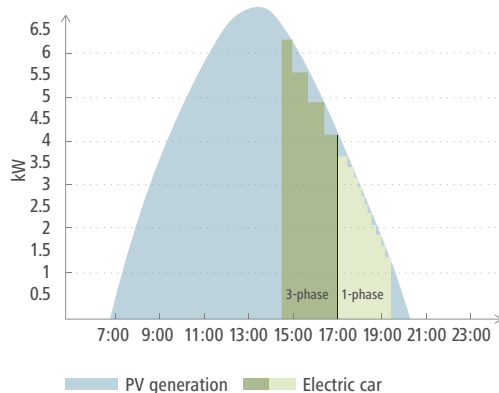
THE FRONIUS WATTPILOLOT: THE INTELLIGENT CHARGING SOLUTION FOR AT HOME AND ON THE ROAD

The Fronius WattpiLOT is available in two versions – the permanently mounted WattpiLOT Home for the home and the mobile WattpiLOT Go for on the road.

Cost-efficient charging with variable electricity tariffs:



Variable electricity tariffs allow the electric car to be charged very cheaply with green electricity from the grid, especially at night when rates are low. This feature will initially be available in Austria and Germany.



Dynamic PV surplus charging:

Dynamic PV surplus charging can be used to charge the electric car with surplus solar energy in ampere increments. This results in higher self-consumption rates and the PV system paying for itself more quickly.



WHAT IS NEEDED TO IMPLEMENT THE E-MOBILITY SOLUTION?

DEVICE	TYPE	NOTE
INVERTER	Fronius Primo GEN24 Plus or Fronius Symo GEN24 Plus as well as all SnapINverters from Datamanager 2.0 onwards	
	Fronius IG, Fronius IG TL, Fronius IG Plus and Fronius CL in combination with a Datamanager 2.0	
	Third-party inverter in combination with a Datamanager Box 2.0	For PV optimisation, no further self-consumption controls (battery, Power2Heat, etc.) may be enforced at the same time. Furthermore, the loads in the household are not taken into account on the display in the Solar.wattpilot app.
FRONIUS WATTPILOT	Wattpilot Go 11 J, Wattpilot Go 22 J or Wattpilot Home 11 J	/ Additional adapter sets for the Wattpilot Go (e.g. 16A CEE plug to earthed plug, etc.), RFID tags, type 2 cables or additional wall mounting plates available
SMART METER	63A-1; 63A-3; 50KA-3 TS 100A-1; TS 65A-3; TS 5kA-3	/ Essential for PV surplus charging / Suitable for single-phase and three-phase grids / Measures energy consumption and energy sourced from the grid

Discover the benefits of our e-mobility solutions working in perfect harmony:



APPROVED

REFERENCE
WATTPILOT / AUSTRIA:



The Wattpilot realises our vision of 24 hours of sun:

Sustainability is a top priority throughout the entire product life cycle.

The following facts speak for themselves:

- / Promote zero-emission mobility to significantly improve the climate
- / Independently and sustainably charge electric cars with your own PV system
- / Adjustable modes for particularly resource-conserving charging

WHAT IS NEEDED TO IMPLEMENT THE E-MOBILITY SOLUTION?

WATTPILOT INSTALLATION AND START-UP

The Fronius Wattpilot is commissioned via a WLAN hotspot using the Solar.wattpilot app.



Please check the following before installation:

/ Supply cable cross-section: Wattpilot Go 11 J / Home 11 J min. 2.5 mm² / Wattpilot Go 22 J min. 6 mm²

/ CEE socket: CEE red 16 A, 3-phase, 400 V (Wattpilot Go 11 J) / CEE red 32 A, 3-phase, 400 V (Wattpilot Go 22 J)

/ Fuse protection: A separate RCCB (Type A) must be installed upstream for each Wattpilot.

Further information can be found in the Operating Instructions



COMMUNICATION BETWEEN INVERTER AND WATTPILOT

The inverter communicates with the Wattpilot via the customer's existing WLAN. No further cabling is required for data communication.

When using multiple Wattpilots in a system, only one device can be used for dynamic PV surplus charging at any time.

It is not recommended to use the energy management function with the digital I/Os on the inverter for load management in combination with the Wattpilot.

If a battery is present in the system, the flexible electricity tariff should not be activated, as the battery is first discharged and only then is electricity drawn from the grid.

INFO Use Eco or Next Trip Mode in combination with a battery only with the flexible electricity tariff deactivated.

COMMUNICATION BETWEEN INVERTER AND SMART METER

Cable connection (from CAT5) via Modbus RTU (RS485)

/ Perfect Welding / Solar Energy / Perfect Charging

THREE BUSINESS UNITS, ONE GOAL: TO SET THE STANDARD THROUGH TECHNOLOGICAL ADVANCEMENT.

What began in 1945 as a one-man operation now sets technological standards in the fields of welding technology, photovoltaics and battery charging. Today, the company has around 5,660 employees worldwide and 1,321 patents for product development show the innovative spirit within the company. Sustainable development means for us to implement environmentally relevant and social aspects equally with economic factors. Our goal has remained constant throughout: to be the innovation leader.

Further information about all Fronius products and our global sales partners and representatives can be found at www.fronius.com

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