



**SOLAR SOLUTIONS YOU CAN BANK ON.**  
**FOR DECADES OF SUNRISES TO COME.**

Fronius: Leading the way for over 70 years. The Sattledt production site in Austria.



## A FAMILY TRADITION OF QUALITY AND INNOVATION ACROSS THE GLOBE

/ The Business Unit Solar Energy has been working in the field of photovoltaics since 1992. We're a family-owned company with a longstanding tradition in power electronics. From the very first battery charger in 1945, we've been setting global standards in innovation, quality and power conversion. Our innovation is guided by our vision of 24 hours of sun, a future we envisage powered and supported exclusively by renewable energy.

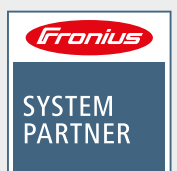
### BANKABILITY

/ Privately owned, Fronius offers customers security and confidence in their purchases. Financially stable and assigned with the best possible risk indicator of 1\* by Dun & Bradstreet, it's clear that Fronius stands for a secure partnership.

### DEPENDABLE POWER

/ By choosing Fronius, customers experience dependable yields with a promise that, if something does fail, a certified Fronius System Partner can easily repair the system in the field.  
/ Fastest on-site service across the sector.  
/ All string inverters come with a 7 year warranty.\*

\*Choose between a 5 year full warranty or a 7 year warranty (2 years full warranty plus 5 years parts warranty).



## QUALITY BUILT TO LAST

/ We are dedicated to building products that will last a lifetime in the harshest conditions. Our extensive tests include weathering, freezing, infrared, vibration and shipping to name a few. Our high standards have named us the quality leader in solar electronics since 2002.



## NATIONAL SUPPORT

/ System operators can rest assured that there is a network of installers trained by Fronius who can repair the system quickly on-site.

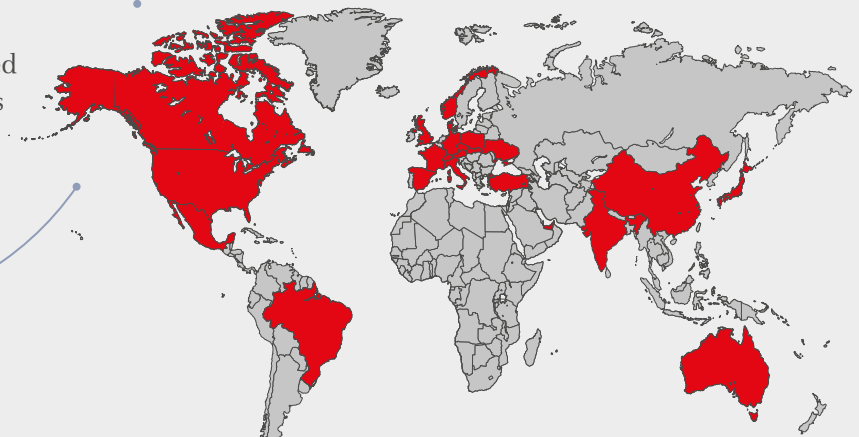
/ Our UK technical support line is open from 8:30 - 5:30 every weekday.

/ Out of hours? No problem. Our Fronius SOS online tool is a 24/7 service for the installer where device data can be retrieved and support and replacements can be requested.



## A GLOBAL ENTERPRISE

/ Today Fronius exports over 90 percent of its products though 36 international subsidiaries and sales distributors in more than 60 countries. With over 1,300 granted patents, we are innovation leaders on a world stage.



# THE FRONIUS SNAPINVERTER GENERATION

/ Inverters form the indispensable heart of every PV system and the Fronius SnapInverter generation features a simple, standardised mounting system amongst the vast array of other features detailed below. From family homes to large-scale installations - these inverters can be used anywhere and increase productivity many times over.



TECHNICAL DATA	PRIMO	SYMO 3 - 8.2 kW	SYMO 10 - 20 kW	FRONIUS ECO
Phase Cat.	Single-Phase	Three-Phase	Three-Phase	Three-Phase
Size Options	3 / 3.5 / 3.6 / 4 / 4.6 / 5 / 6 / 8.2 kW	3 / 3.7 / 4.5 / 5 / 6 / 7 / 8.2 kW	10 / 12.5 / 15 / 17.5 / 20 kW	25 / 27 kW
MPP Tracker	2	2	2	1
Protection Class	IP65	IP65	IP66	IP66
Dimensions	645 x 431 x 204 mm	645 x 431 x 204 mm	725 x 510 x 225 mm	725 x 510 x 225 mm
Weight	21.5 kg	3-6 kW, 19.9 kg 7 & 8 kW, 21.9 kg	10 & 12.5 kW, 34.8 kg 15-20 kW, 43.4 kg	35.7 kg
Superflex Design		•	•	
Dynamic Peak Manager		•	•	•

## CHARACTERISTICS OF SPECIFIC FRONIUS SNAPINVERTERS



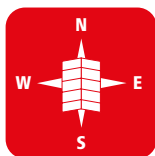
### SMART GRID READY

/ Smart functions are built-in including control functions for optimum feed-in of reactive power and effective power.



### INTEGRATED DATA COMMUNICATION

/ Fully integrated data logging, WLAN, Ethernet, energy management, web server and a range of interfaces.  
/ Connect to third-party components via Modbus TCP SunSpec, Modbus RTU SunSpec or Fronius Solar API.



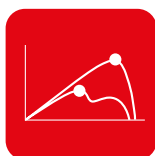
### SUPERFLEX DESIGN

/ 2 MPP trackers, a high system voltage and wide DC input voltage range.  
/ Single inverter for different roof orientations, shading, or the use of residual modules.



### EXPORT LIMITATION

/ Limit the amount of energy fed back into the grid where limits or zero exports are applicable.  
/ Smart meter and Datamanager products required.



### DYNAMIC PEAK MANAGER

/ MPP tracking algorithm.  
/ Automatically checks the characteristic curve regularly and finds the GMPP, even in partial shade.



### SYSTEM MONITORING

/ Visualise PV production data and see system alerts with the Fronius Solar.web portal.  
/ With a Fronius Smart Meter, you can also display your consumption data and analyse usage for system expansion such as energy storage.

# FRONIUS GEN24 PLUS

## THE VERSATILE HYBRID INVERTER WITH INTEGRATED BACKUP POWER FUNCTION.

The Fronius GEN24 Plus is the all-in-one solution for solar energy supply. Whether it is used in photovoltaics, a storage system, backup power, heating or e-mobility, the Fronius GEN24 Plus offers a unique range of solutions and is therefore playing a pioneering role in the home energy revolution.

[www.fronius.com/gen24plus](http://www.fronius.com/gen24plus)



TECHNICAL DATA	PRIMO GEN24 PLUS	SYMO GEN24 PLUS 3 - 5 KW	SYMO GEN24 PLUS 6 - 10 KW
Phase Category	single-phase	Three-phase	Three-phase
Power classes	3 / 3.6 / 4 / 4.6 / 5 / 6 kW	3 / 4 / 5 kW	6 / 8 / 10 kW
MPP Tracker	2	2	2
Protection class	IP 66	IP 66	IP66
Dimensions (H x W x D)	530 x 474 x 165 mm	530 x 474 x 165 mm	595 x 529 x 180 mm
Weight	15.4 kg	15.6 kg	23.4 kg
DC input voltage range	65 V - 600 V	80 V - 1,000 V	160 V - 500 V
Compatible battery storage	BYD Battery-Box Premium HVS/HVM <sup>1</sup>		
Full Backup <sup>2</sup>	.	.	.

<sup>1</sup> Compatibility depending on the inverter types.

<sup>2</sup> For the Full Backup, additional components for grid separation are required. You can find more information on this in the operating instructions.

## CHARACTERISTICS OF FRONIUS GEN24 PLUS

All the characteristics of the SnapINverter range plus the following



### MULTI FLOW TECHNOLOGY

/ Charge your battery directly from your solar panels for industry leading efficiency. Store surplus energy from other generators such as wind turbines and top up directly from the grid.



### ACTIVE COOLING TECHNOLOGY

/ The unique ventilation concept ensures high power output and long service life. The advanced heatsink design ensures components stay cool even in hot weather conditions.



### PV POINT BASIC GRID BACKUP

/ The integrated basic backup power function, the so-called PV Point, is a power socket supplied with electricity in the event of a power outage.

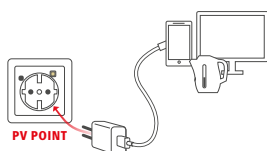
- / Automatic activation in case of a grid outage
- / Costly additional installation work is not necessary
- / Supplies households with one-phase loads of up to 3 kW



### FULL BACKUP

/ With the **Full Backup option**, the entire building, i.e. 1-phase as well as 3-phase devices, can be supplied with electricity in the event of a power outage (Symo Gen24 Plus 3 - 5 KW excluded).

- / Supplies the entire household (even three-phase loads)
- / Automatic switch to backup power in the event of grid failure (changeover panel sold separately).
- / Efficient energy flows due to the Multi Flow Technology, even in backup power situations



# FRONIUS SMART METER

A Fronius Smart Meter is a bidirectional meter that optimises self-consumption, records load curves, controls energy flows and limits the amount of energy sent back to the grid.

The Fronius Smart Meter range is compatible with all Fronius Gen24 Plus inverters as well as all other Fronius inverters with the Fronius Datamanager 2.0. You can also use them with the Fronius Ohmpilot.

## FRONIUS SMART METER FOR ENERGY CONSUMPTION

The Fronius Smart Meter range allows system owners to record their energy consumption which is then graphically displayed in Fronius' free online portal, Solar.web. The intelligent system combines both the production and consumption data for the PV system enabling the system owner to better understand their energy usage, see where additional savings can be made and look at system additions such as battery storage.

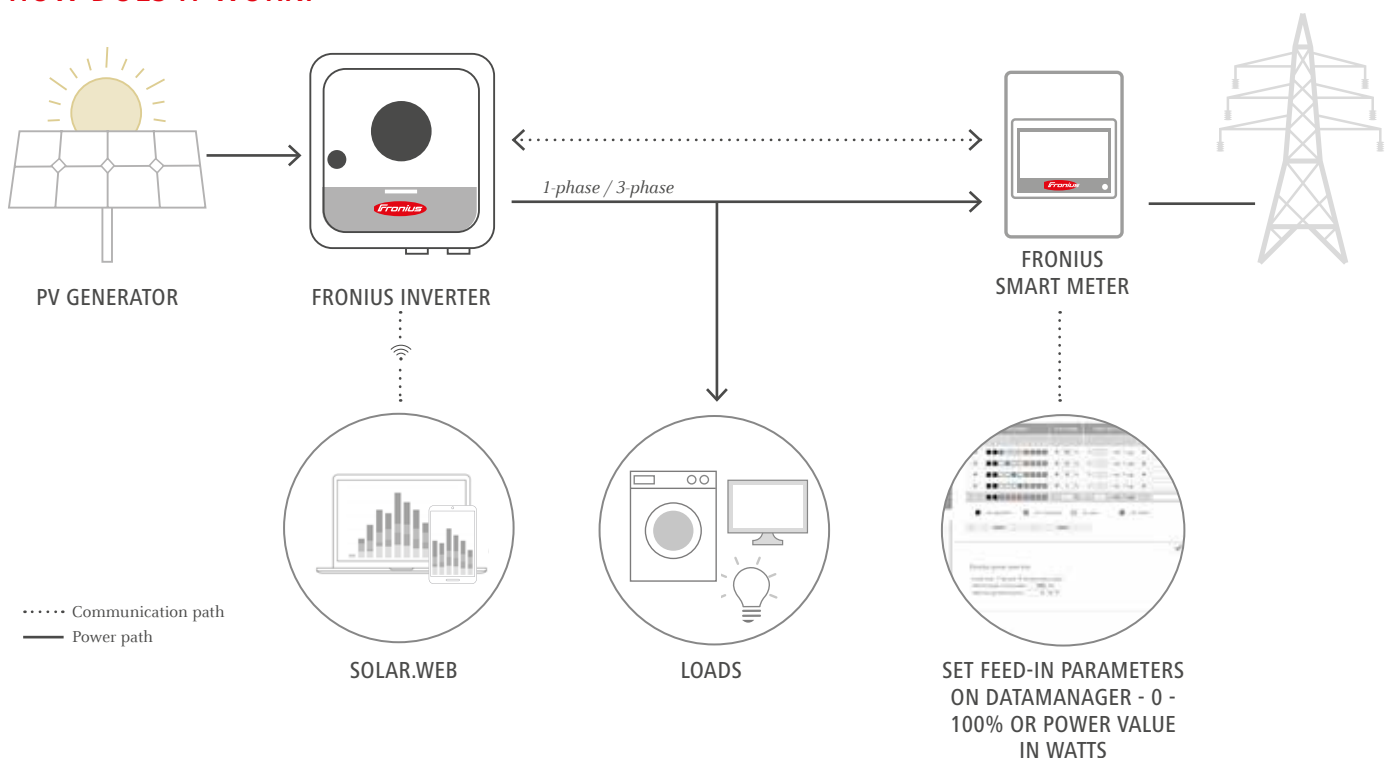
Potential system errors can also be identified, ensuring any issues are fixed quickly thus limiting the downtime of the system and loss of energy production.



## FRONIUS SMART METER FOR EXPORT LIMITATION

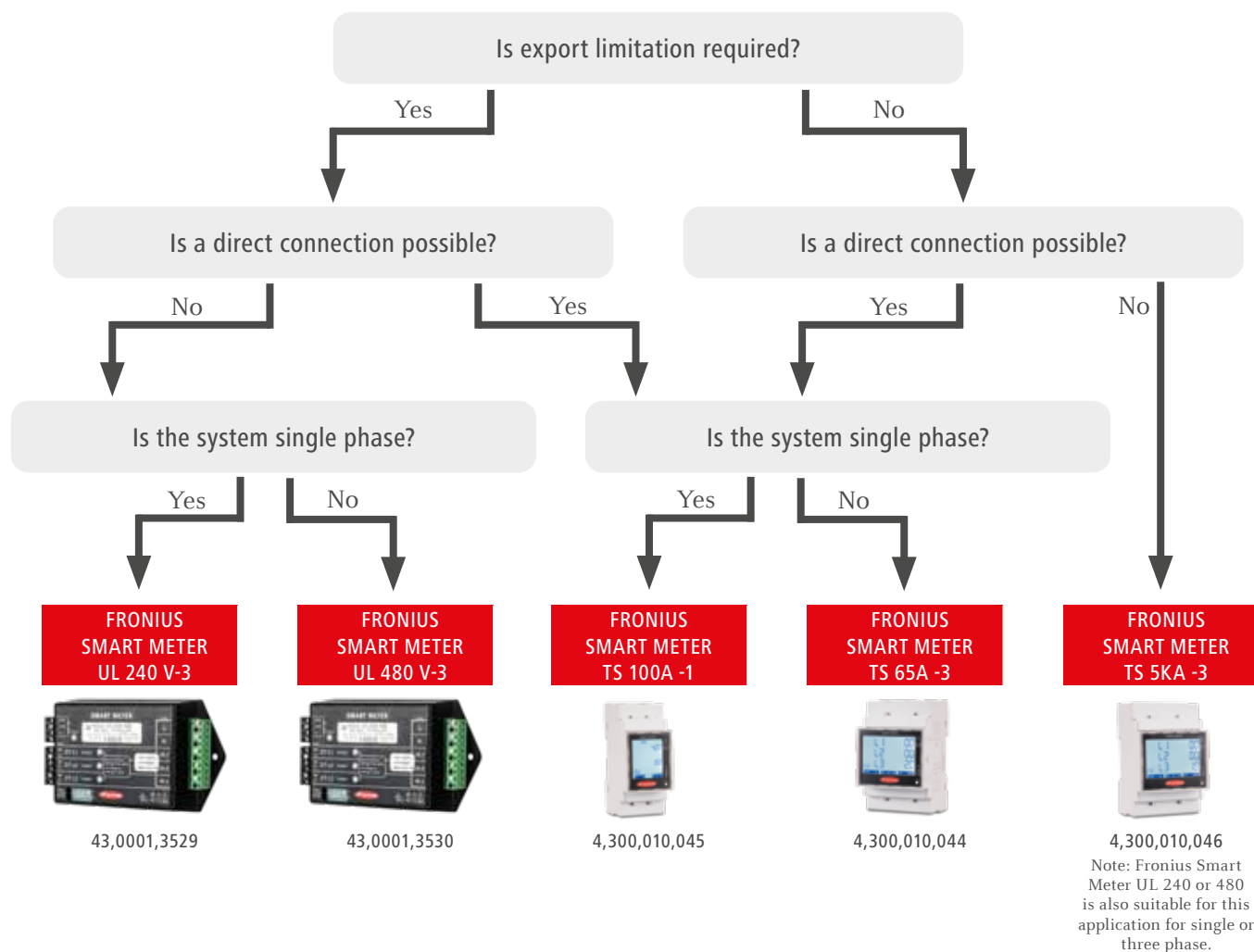
The Fronius Smart Meter range offers a simple and economical solution to export limitation and complies with current DNO requirements. The limitation is based on the inverter shifting its optimum operating point to adapt the output power to not exceed a predefined export value to the grid. This predefined value is set within a password protected area of the Fronius Datamanager web interface and is set in whole percentages from 0 - 100% or as a value in Watts.

## HOW DOES IT WORK?



# FRONIUS SMART METER

To ensure you select the right smart meter for the job, use our helpful flow chart to lead you to the correct model.



## FRONIUS SMART METER OVERVIEW

TECHNICAL DATA	FRONIUS SMART METER TS 100A -1	FRONIUS SMART METER TS 65A -3	FRONIUS SMART METER UL 240 V-3	FRONIUS SMART METER UL 480 V-3	FRONIUS SMART METER TS 5KA -3
Article No	43,0001,0045	43,0001,0044	43,0001,3529	43,0001,3530	43,0001,0046
Phases	Single Phase	Three Phase	Single Phase	Three Phase	Single, Two & Three Phase
CT's Required*	N/A	N/A	1 x 0.333V	3 x 0.333V	1/2/3 x 5A
100A			42,0449,0097	42,0449,0097	42,0449,0046
150A			42,0449,0098	42,0449,0098	
250A			42,0449,0099	42,0449,0099	42,0449,0085
400A			42,0449,0100	42,0449,0100	42,0449,0073
Export Limitation	•	•	•	•	
Energy Management Relay	•	•	•	•	•
Gen24 Plus / Hybrid	•	•	•	•	•
SnapINverter	•	•	•	•	•
Ohmpilot	•	•	•	•	•
AC Connection	Direct Connection	Direct Connection	6A Single Phase MCB	6A Three Phase MCB	6A Three Phase MCB
Datamanger Firmware	3.15.X	3.15.X	3.12.X		3.15.X
Dimensions (W x H x D)	92 x 36 x 60 mm	92 x 54 x 60 mm	85 x 143 x 38 mm	85 x 43 x 38 mm	92 x 54 x 60 mm
Mounting	Din Rail	Din Rail	Threaded Fastener	Threaded Fastener	Din Rail

\*Other CT sizes available upon request. • = compatible for

# FRONIUS TAURO

## THE ROBUST COMMERCIAL INVERTER FOR MAXIMISED PROFIT.

The inverter allows, like no other, for flexible system planning, minimising balance of system (BOS) costs and generating highest yields even in extreme conditions (heat, cold, dust - you name it).

[www.fronius.com/tauro](http://www.fronius.com/tauro)



## DIRECT VARIANT

TECHNICAL DATA	TAURO 50 - 3 - D	TAURO ECO 50 - 3 - D	TAURO ECO 100 - 3 - D
Max. PV generator power (P <sub>dc</sub> max)	75 kWp peak	75 kWp peak	150 kW peak
DC input voltage range min - max	200 - 1000 V	580 - 1000 V	580 - 1000 V
MPP Tracker	3	1	1
Degree of protection	IP65 class 1	IP65 class 1	IP65 class 1
Installation	Indoor and Outdoor		
Dimensions H x W x D (without wall mount)	755 x 1109 x 346 mm		
Weight	92 kg	74 kg	103 kg
Night-time consumption	< 16 W		
Ambient temperature range	-40 to 65°C <sup>1</sup>		
Certificates and compliance with standards <sup>2</sup>	EREC G99, G99/NI, AS/NZS 4777.2:2020, IEC62109-1/-2, VDE-AR-N 4105:2018, IEC62116, EN50549-1:2019 & EN50549-2:2019, VDE-AR-N 4110:2018, CEI 0-16:2019, CEI 0-21:2019		

<sup>1</sup>Optional AC-disconnect mounted inside the inverter: from -30 to +60°C

<sup>2</sup>These are planned certificates. For the current certificates, please see [www.fronius.com/tauro-cert](http://www.fronius.com/tauro-cert)





## SAVING BOS COSTS WITH SMART HARDWARE DESIGN

Thanks to the different options, like the AC daisy chaining, the Fronius Tauro guarantees not only fast installation but also reduces BOS costs significantly.

/ AC daisy chaining reduces the number of AC combiner boxes

/ Inverter-integrated surge protection device saves additional components

/ Time and costs savings in the installation with V-clamps

## PRECOMBINED VARIANT

TECHNICAL DATA	TAURO 50 - 3 - P	TAURO ECO 50 - 3 - P	TAURO ECO 100 - 3 - P
Max. PV generator power (P <sub>dc</sub> max)	75 kWp peak	75 kWp peak	150 kW peak
DC input voltage range min - max	200 - 1000 V	580 - 1000 V	580 - 1000 V
MPP Tracker	3	1	1
Degree of protection	IP65 class 1	IP65 class 1	IP65 class 1
Installation	Indoor and Outdoor		
Dimensions H x W x D (without mounting)	755 x 1109 x 346 mm		
Weight	92 kg	74 kg	103 kg
Night-time consumption	< 16 W		
Ambient temperature range	-40 to 65°C <sup>1</sup>		
Certificates and compliance with standards <sup>2</sup>	EREC G99, G99/NI, AS/NZS 4777.2:2020, IEC62109-1/-2, VDE-AR-N 4105:2018, IEC62116, EN50549-1:2019 & EN50549-2:2019, VDE-AR-N 4110:2018, CEI 0-16:2019, CEI 0-21:2019		

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## CHARACTERISTICS OF THE TAURO



### SYSTEM DESIGN FLEXIBILITY

/ Unprotected outdoor area installation  
/ Suitable for every commercial system (decentral and central topologies)  
/ Multiple options for integrated system components. e.g. surge protection device.



### OPTIMISING COSTS

/ The AC Daisy Chaining option saves AC combiner boxes & cabling, therefore it significantly reduces BOS & installation costs of the roof-top or ground-mount system.  
/ Fast installation and maintenance.



### MAX. PERFORMANCE UP TO 50°C

/ Thanks to the double wall and active cooling technology the components are protected from high temperature and performance is consistent in hot climates.



### ACTIVE DOUBLE WALL COOLING

/ The Fronius Tauro can be installed in an unprotected harsh environment thanks to the innovative double wall construction and active cooling technology.  
/ Extends the inverter's lifetime



### DIRECT SUNLIGHT

/ The Fronius Tauro can be placed in direct sunlight and still produces the best yield.



### POWER STAGE REPLACEMENT

/ Should maintenance or repairs be necessary, only the power stage set needs to be replaced and not the entire inverter, saving resources and time.

# FRONIUS OHMPILOT

## OPTIMISING SELF-CONSUMPTION THROUGH THE INTELLIGENT, CONTINUOUSLY ADJUSTABLE REGULATION OF HEAT SOURCES.

The Fronius Ohmpilot is primarily used to intelligently control heating elements for providing hot water in boilers and buffer storage tanks, but can also be used for infrared heating or towel radiators. Solar power can thus provide a family home with average levels of water consumption with most of their hot water from April to October. The result is maximum self-consumption, a reduction in the household's CO<sub>2</sub> emissions and less wear on the building's main heating system during the summer months.



GENERAL DATA	OHMPILOT
Type of power regulation	Pulse width modulation
Dimensions (height x width x depth)	350 x 280 x 110 mm
Weight	3.9 kg
Protection class	IP54
Installation	Wall mounting
Ambient temperature range	0 - 40 °C
Permitted humidity	0 - 99 %, non-condensing
Certificates and compliance with standards	CE, EN 61000-6-2, EN 61000-6-3, EN 61000-3-2, EN 61000-3-3, EN 300 328



## BENEFITS OF THE OHMPILOT

- / Continuously adjustable regulation from 0 to 9 kW
- / Significantly increases self-consumption rate
- / Extends service life of the primary heat source
- / Hot water supply with solar power over 8 months a year largely possible
- / Easy installation
- / Suitable for commercial 3-phase applications
- / Compatible with other heat sources, such as heat pumps
- / Protection against legionella
- / Dynamic power reduction enables zero feed-in

Installing the Fronius Ohmpilot could not be easier thanks to straightforward commissioning via the dedicated website as well as a simple communication connection via WLAN. The Fronius Ohmpilot also protects the grid by cleanly and reliably activating the consumers. The Ohmpilot is compatible with all Fronius inverters. A Fronius Datamanager 2.0 and a Fronius Smart Meter are required to use the device. The Fronius Datamanager is integrated as standard in the Fronius Symo, Fronius Primo, Fronius Galvo and Fronius Eco inverters. The Fronius Datamanager and the Fronius Smart Meter can be retrofitted in existing inverters at any time. It is also advisable to use a PT1000 temperature sensor. This is the only way that users can further optimise consumption behaviour by setting the minimum and target temperatures for the hot water and the temperature can be displayed in Solar.web.



# FRONIUS WATTPILOT

## THE INTELLIGENT CHARGING SOLUTION.

The Fronius Wattpilot is available in two versions: the permanently mounted Wattpilot Home for the household and the mobile Wattpilot Go for on the move. The device can be operated using the associated Solar.wattpilot app, which also provides an overview of the charging process. The intelligent plug and play charging solution has two different charging modes called Eco and Next Trip. What's more, the Wattpilot is PV-optimised, meaning that the car can be charged cost-effectively and sustainably in ampere increments of surplus solar energy.



TECHNICAL DATA	WATTPILOT GO 11 J	WATTPILOT GO 22 J	WATTPILOT HOME 11 J
Maximum charging power	11 kW 3-phase / 3 kW single-phase	22 kW / 7 kW	11 kW / 3 kW
Use	Indoors and outdoors		
Mains connection	CEE16 plug red 5-pin /	CEE32 plug red 5-pin /	5-pin cable /
Optional adapter set	CEE32 red fused,	CEE16 red,	—
PV optimisation	Dynamic PV surplus charging from 1.38 - 11 kW (automatic 1-/3-phase switching)	Dynamic PV surplus charging from 1.38 - 22 kW (automatic 1-/3-phase switching)	Dynamic PV surplus charging from 1.38 - 11 kW (automatic 1-/3-phase switching)
Nominal current (configurable)	6-16A 1-phase or 3-phase	6-32A 1-phase or 3-phase	6-16A 1-phase or 3-phase
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 <sup>2</sup>	Min. 6 mm <sup>2</sup>	Min. 2.5 mm <sup>2</sup>
Network connection	WLAN		

## BENEFITS OF THE WATTPILOT

### / Cost-effective charging with variable green electricity tariffs

The electric car can be charged very cheaply from the grid with green electricity through the use of variable green electricity tariffs, particularly at night during low-tariff periods.

### / Standalone app: "Solar.wattpilot"

To operate the Wattpilot, the Solar.wattpilot app (iOS and Android) is available for electric car owners. The device can be put into operation with just a few clicks, charging settings can be made and charging processes visualised.

### / Dynamic PV surplus charging

Dynamic PV surplus charging can be used to charge the electric car with ampere increments of surplus PV by means of 1/3-phase switching. This results in higher self-consumption rates and the PV system paying for itself more quickly.

### / Two different charging modes: Eco and Next Trip

Depending on customer requirements, the electric car can either be charged in an extremely environmentally friendly manner or in a way that is tailored perfectly to the next journey.

### / Network connection via WLAN

### / RFID access controls

### / Theft-proof charging socket lock

### / Three-phase current sensor to evaluate the charging current

### / Adapter recognition with automatic reduction to 16A (only for Wattpilot Go 22J)



# FRONIUS SOLAR.SOS



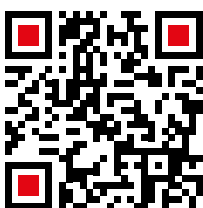
## SOLVE YOUR TECHNICAL ISSUE NOW

The online service tool from Fronius lets installers initiate the repair process while still on-site at the system location – all that is needed is the serial number of the inverter or the state code. In just a few clicks you can get support with diagnosing faults and order a replacement at any time without being put in a queue.

In addition to our technical support hotline, you can also use the message function to get in touch with one of our advisers. Whatever way, we will assist you to the usual high standard of quality you have come to expect from Fronius.



App available:



Desktop version: [www.fronius.com/sos](http://www.fronius.com/sos)

- / **Troubleshooting** - Step by step guide to resolving issues
- / **Rapid ordering** - Avoid phone queues and order components directly from app
- / **Overview** - View all cases at a glance
- / **Interaction** - Auto notifications & messaging function with tech support
- / **Manuals** - Access to relevant installation/operating instructions & videos
- / **One account** - organise cases when sub-contracting to multiple installation companies

## GAIN EXPERT KNOWLEDGE DIRECTLY FROM THE MANUFACTURER

The complexity and professionalism of our industry is constantly growing. To be successful it is becoming increasingly important to stand apart from the competition with your PV and energy system expertise. That is why we have a range of courses to guide you through the energy revolution.

Our trainers are all experienced employees with a technical background and know our products and the market inside and out. We regularly run our structured, hands-on training courses, but we can also offer bespoke training courses to suit your requirements - on-site or at our training facility in Milton Keynes.



**CONTACT US**

For more information, visit [www.froniussolartraining.co.uk](http://www.froniussolartraining.co.uk) call us on +44(0)1908 512 300 or email [pv-training-uk@fronius.com](mailto:pv-training-uk@fronius.com)

You can also find all our upcoming webinars on our website to further boost your knowledge.

Contact us about becoming a certified Fronius System Partner.



/ 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 5,440 employees worldwide and 1,264 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](http://www.fronius.com)