

/ Perfect Welding / Solar Energy / Perfect



Fronius International GmbH  
Froniusplatz 1, 4600 Wels

# FRONIUS PRODUCTS AND SOLUTIONS OVERVIEW

# AGENDA

- / Presentation of company **Fronius**
  - / Vision 24 hours of sun
- / Fronius **SnapInverter** series
- / Fronius **Smart Meter**
- / Fronius **Ohmpilot**
- / Fronius **world of storage**
- / **Meet the new heroes!**
  - / Fronius GEN24 Plus
  - / Fronius Tauro



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1945 to 2020 – 75 years of Fronius

# Fronius company presentation

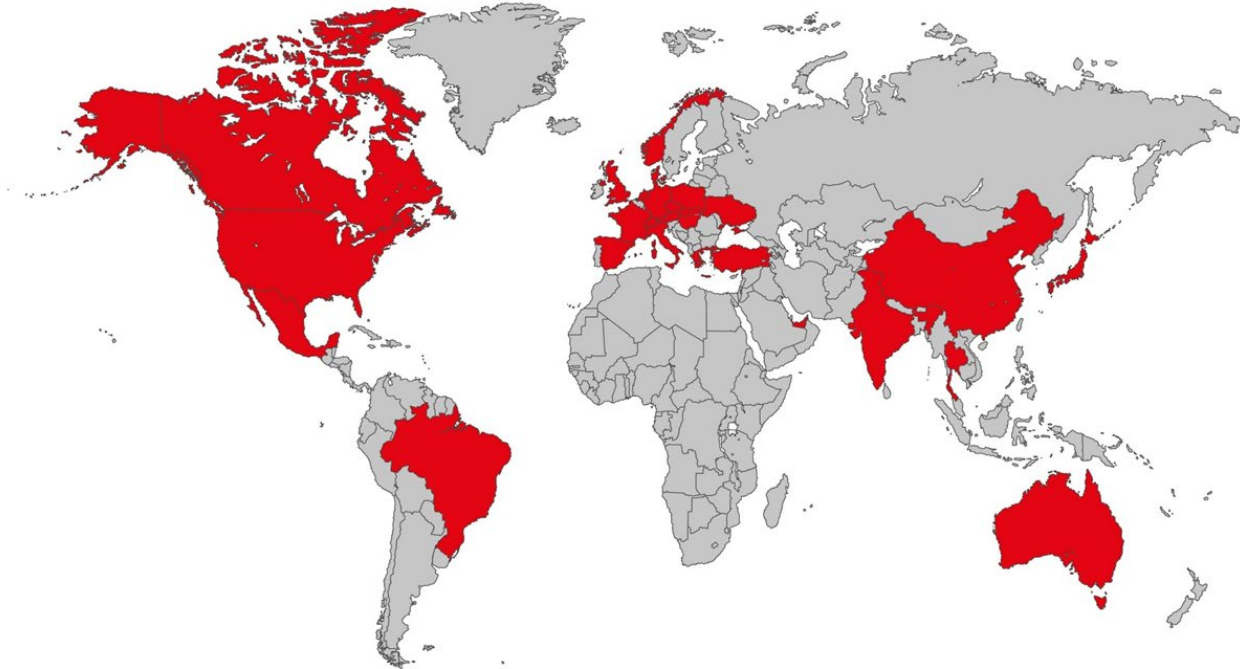
# HOW IT ALL **BEGAN**

**PETTENBACH**

**1945**



# GLOBAL DEVELOPMENT



# STABILITY FOR GENERATIONS

YESTERDAY,  
TODAY AND  
BEYOND

IN FAMILY  
OWNERSHIP



# THREE BUSINESS UNITS



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# INVERTERS DESIGNED & PRODUCED IN **AUSTRIA**







24hoursofsun.com

**24**

HOURS OF SUN

# FRONIUS SOLHUB

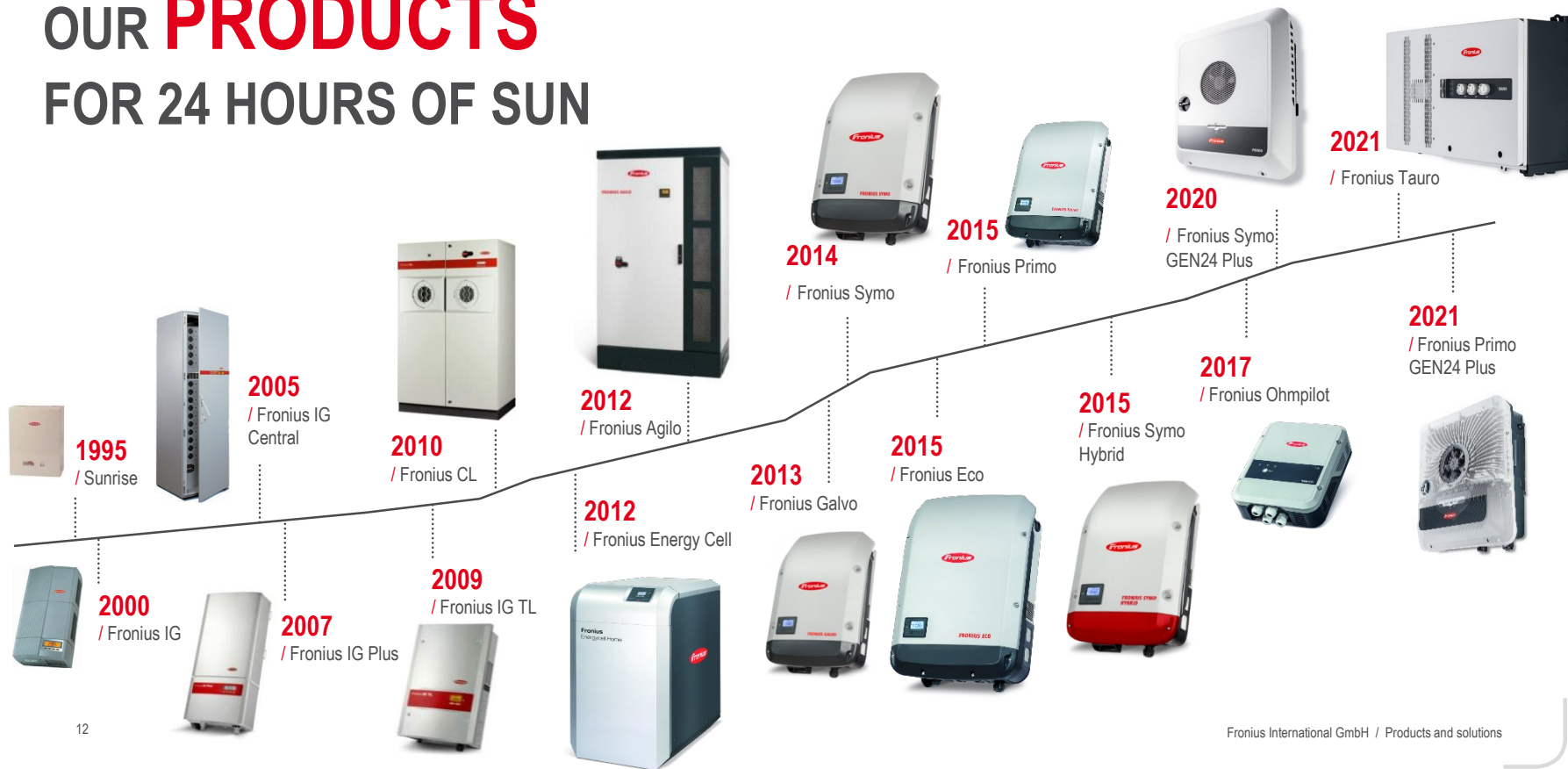


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System design with Fronius products and solutions

# The Fronius inverter solutions

# OUR PRODUCTS FOR 24 HOURS OF SUN



# WE HAVE DONE THIS A **MILLION TIMES**



# FRONIUS **SNAPINVERTER** SERIES

## SEEN ONE – SEEN THEM ALL!

1-phase



Primo 1-3.0–8.2 M

3-phase



Symo Hybrid 3-3.0–5.0 S



Symo 3-3.0–8.2 M



Symo 3-10.0–20.0 M

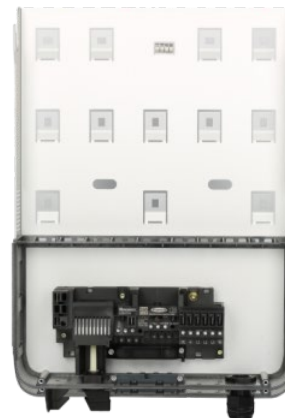


Eco 3-25.0-S / 27.0 S

# EASIEST **INSTALLATION & COMMISSIONING** SNAPINVERTER CONCEPT



- / Practical and light-weight wall bracket
- / **All connections** integrated - safe to touch
- / Installation and service **by 1 person**



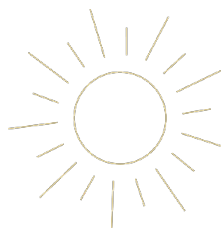
Fronius Smart Meter

# Consumption data with Fronius Smart Meter



# FRONIUS SMART METER

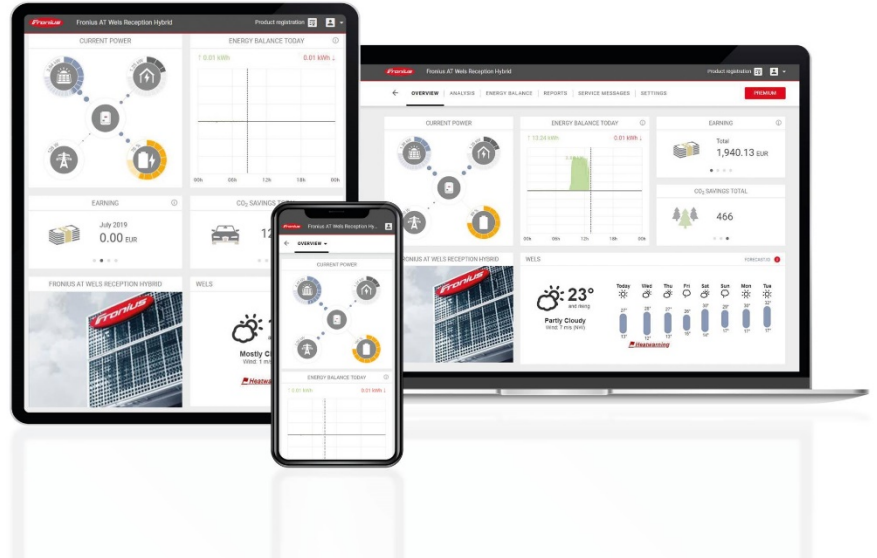
- / Fronius Smart Meter and Fronius Smart Meter TS
- / Basis for complete monitoring in **Fronius Solar.web**
  - / Analysis and visualisation of consumption data
- / **Bidirectional energy meter**
  - / Differentiation between grid supply und grid feed-in



**EVERY FRONIUS INSTALLATION WITH  
FRONIUS SMART METER!**

# MONITORING IN FRONIUS SOLAR.WEB

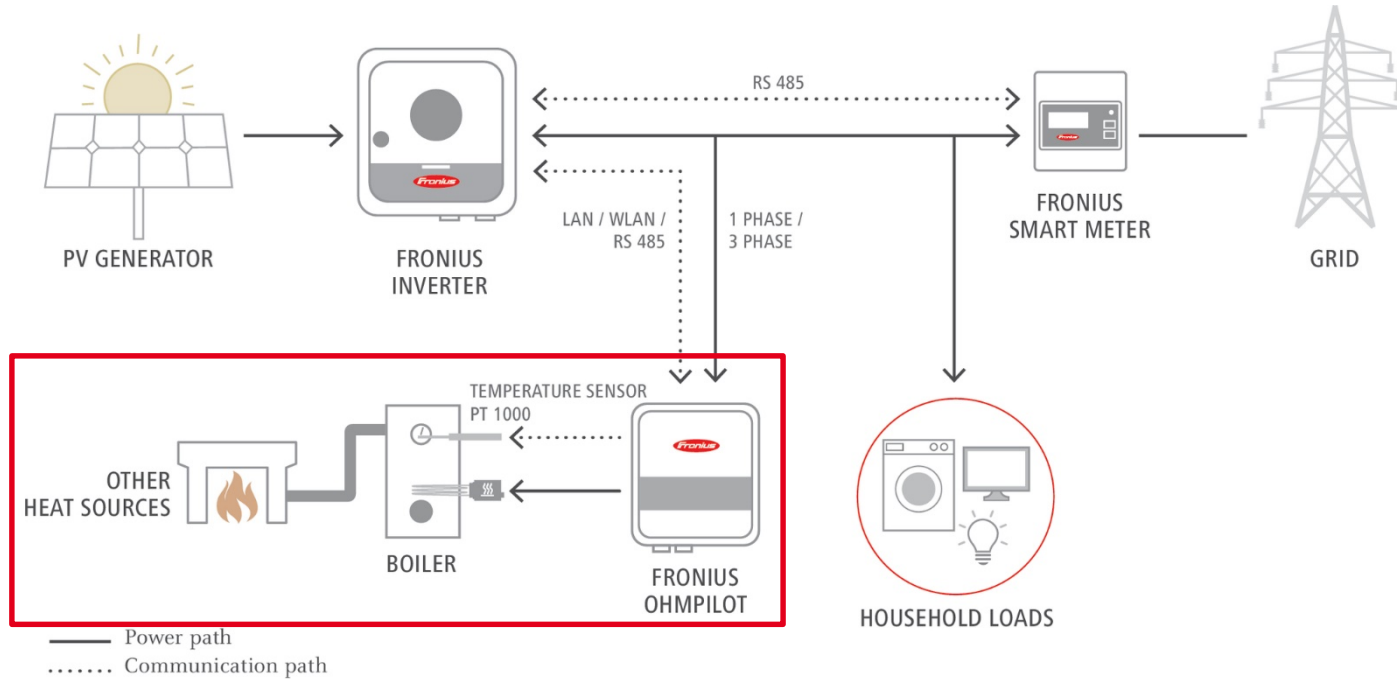
- / Energy balance (daily/ monthly/ yearly)
- / Own consumption visualisation
- / Service messages
- / Remote update
- / Premium version (chargeable option)
  - / Reports and data analysis
  - / Consumption analysis
  - / Battery and Ohmpilot simulation
  - / Weather widget
  - / Connection to Amazon Alexa



Storage of surplus energy – hot water storage

# Fronius Ohmpilot

# ELECTRICITY AND HEAT



# FRONIUS OHMPILOT

## THE HEATING MIRACLE

### Fronius Ohmpilot

Stepless regulation

Highest efficiency

3-phase up to 9 kW

Maximum self-consumption

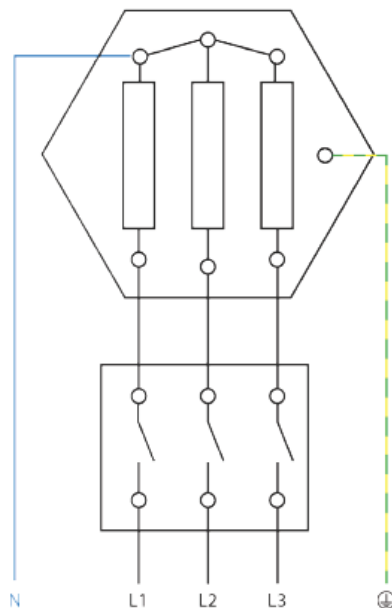
Ohmic loads only



# SUITABLE LOADS

## Heating rods

- / 1-phase: 0,3 to 3 kW
- / 3-phase: 0,9 to 9 kW
- / Neutral must be carried out
- / without active electronic!

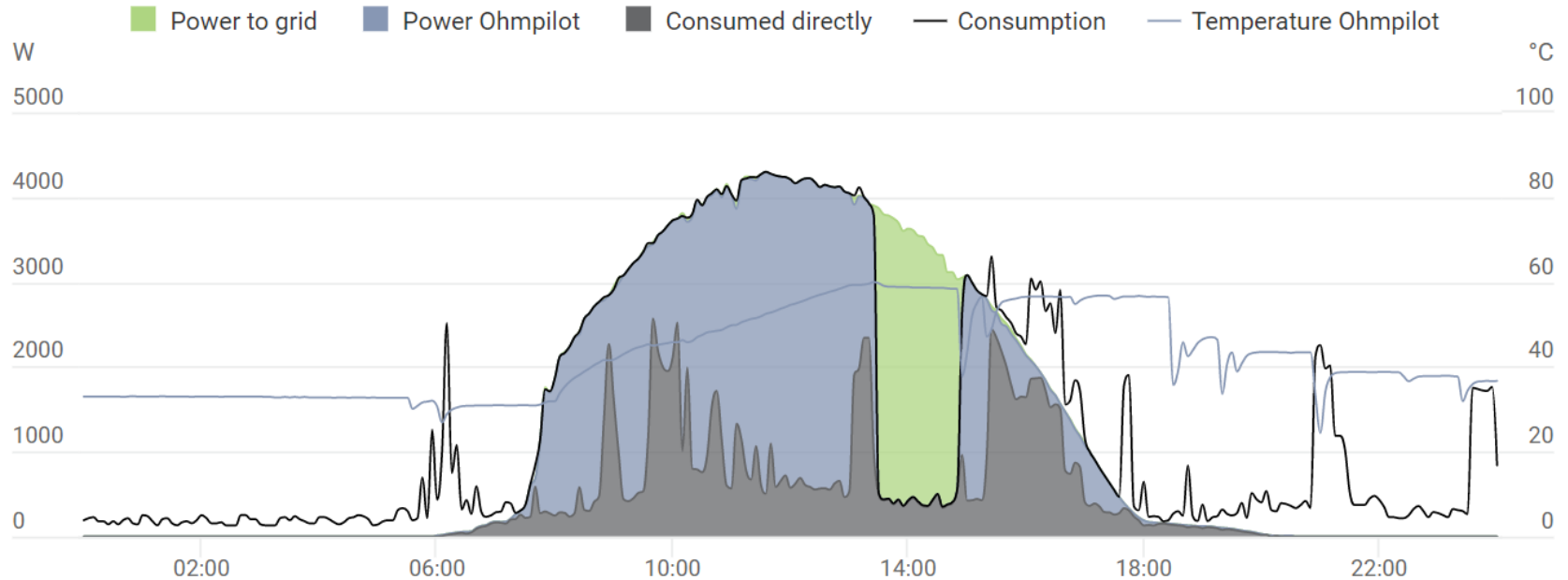


## Other omic loads

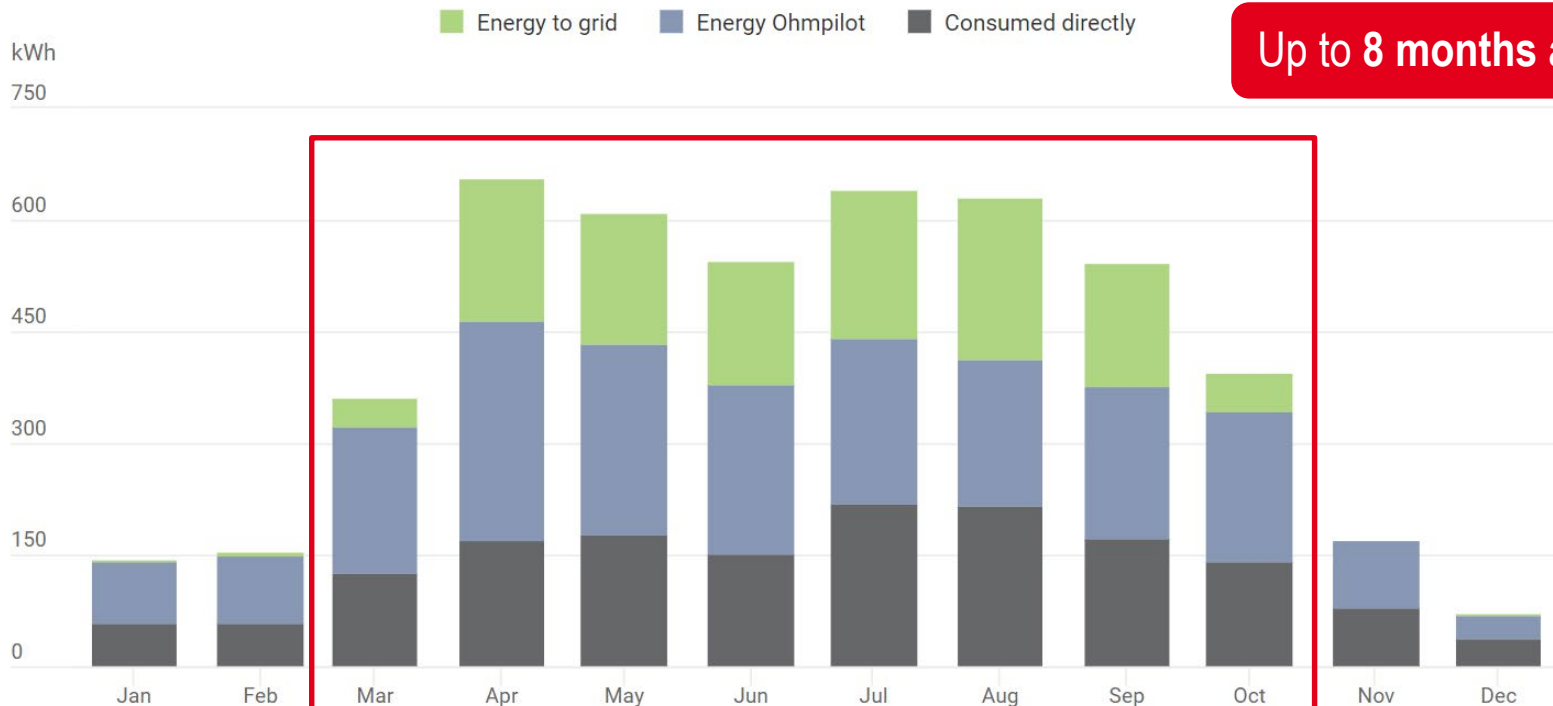
- / Various infrared heaters,
- / towel radiators,
- / Etc...



# GENERATING **HOT WATER** WITH THE SUN



# GENERATING **HOT WATER** WITH THE SUN



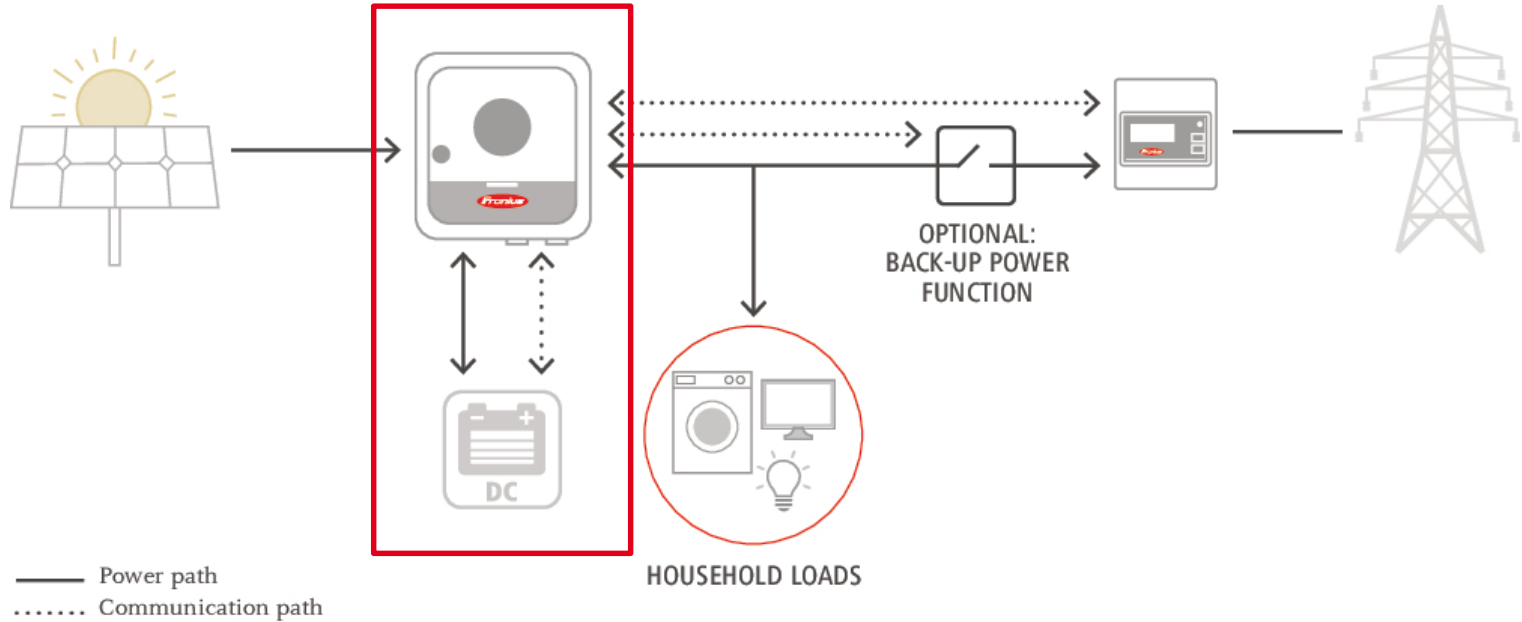
Up to 8 months a year



Fronius world of storage

# Battery storage solutions

# ELECTRICITY AND BATTERY STORAGE



# FRONIUS SYMO HYBRID

## RELIABILITY OVER YEARS

### Fronius Symo Hybrid

Three-phase

Highest efficiency

Power classes: 3 – 5 kW

Maximum self-consumption

1 MPPT + 1 battery input



# BATTERY STORAGE SYSTEMS



BYD Battery-Box Premium HVM

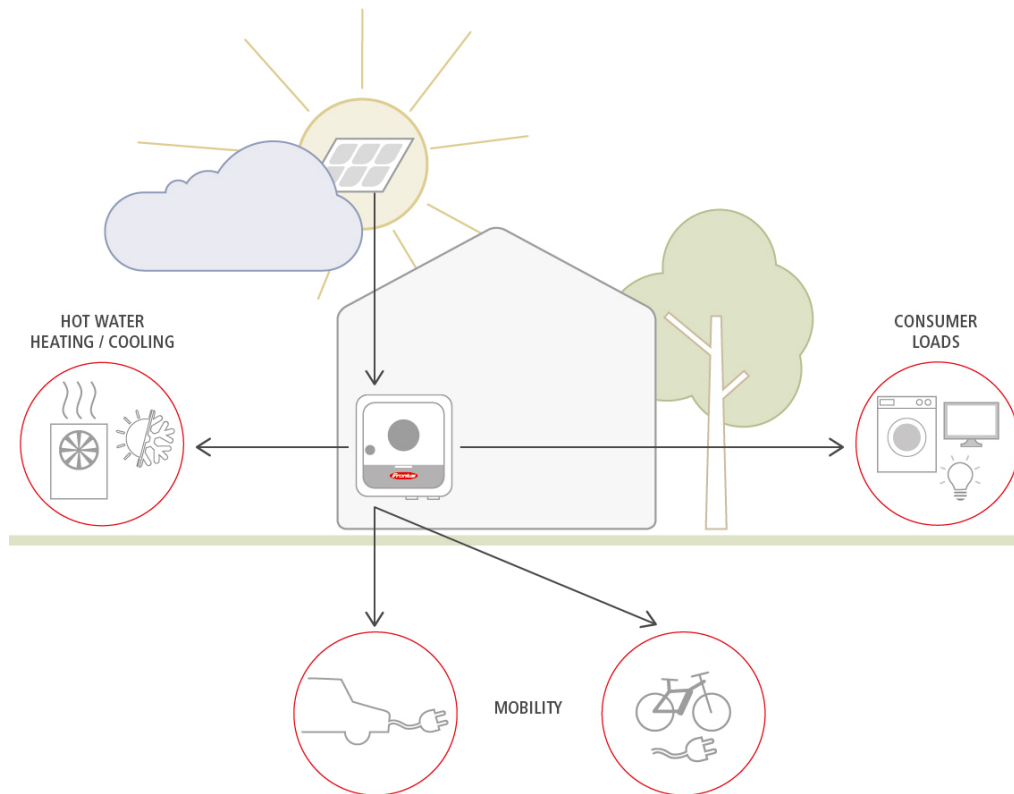


Fronius Symo Hybrid &  
Fronius Smart Meter



LG Chem RESU

# FULL EXTENSION WITH FRONIUS GEN24 PLUS



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Fronius GEN24 Plus and Tauro series

# Meet the new heroes!



# FRONIUS GEN24 PLUS

# FRONIUS GEN24 PLUS

## UNIQUELY VERSATILE

Available now!

### Fronius Primo GEN24 Plus

Single-phase

Power classes: 3 - 6 kW

2 MPPT + 1 battery input

### Fronius Symo GEN24 Plus

Three-phase

Power classes: 6 - 10 kW

2 MPPT + 1 battery input







# FRONIUS GEN24 PLUS

## FOR HOT WATER AND HEATING

### Maximum self-consumption

Using own energy

Using surplus energy

Fronius Ohmpilot

Efficient storage solution





# FRONIUS GEN24 PLUS

## FOR SYSTEMS WITH/WITHOUT BATTERY

### Battery connection

Increase self-consumption

Easy retrofitting

BYD Battery-Box Premium HVS / HVM

Inexpensive solution



# GEN24 PLUS STORAGE SOLUTION



## BYD BATTERY-BOX PREMIUM HVS/HVM

### Safety.

- / Lithium iron phosphate (LiFePO<sub>4</sub>)

### Modularity.

- / HVS: 5.1-10.2 kWh, 2-4 modules
- / HVM: 11-22.1 kWh, 4-8 modules

### Retrofitable.

- / 2,6 kWh (HVS) or 2.8 kWh (HVM) steps

### Easy installation.

- / Ground mounting
- / Easy commissioning

\* Primo GEN24 Plus 7 modules (19,3 kWh)

Fronius International GmbH / Products and solutions

# MAXIMUM BACK-UP POWER: **FULL BACK-UP**



## 3-PHASE\* BACK-UP POWER

**Overall supply.**  
Of entire household

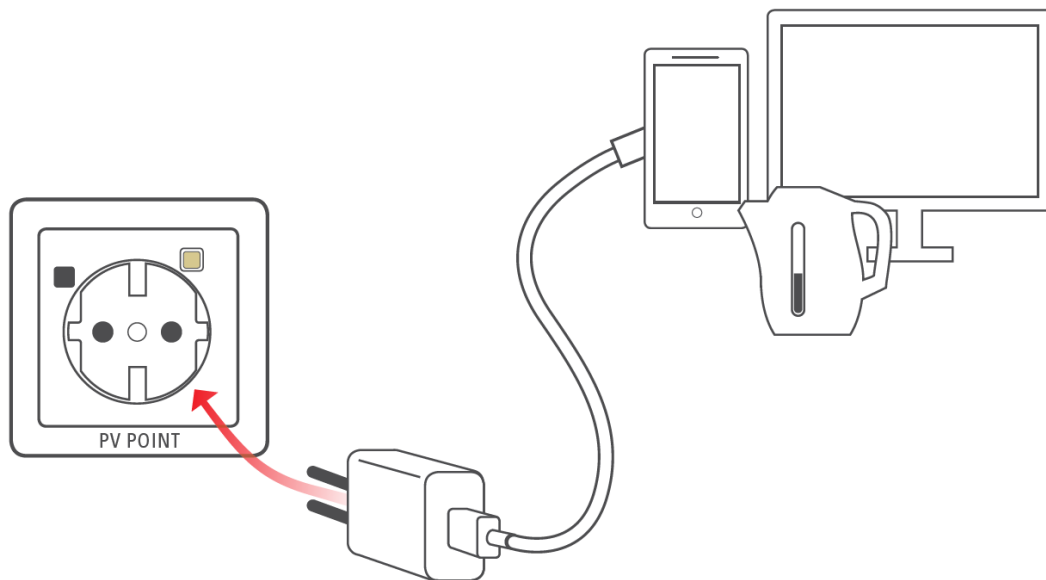
**Maximum supply.**  
Automatic switch-over < 60 sec.

**Electric loads.**  
Single-phase and three-phase

**Maximum energy consumption.**  
Parallel (dis)charging (Multi Flow)

\* With Fronius Symo GEN24 Plus

# BASIC GRID BACKUP: PV POINT



## PV POINT ON BOARD

### Back-up connection.

Only supplied in case of grid outage

### Automatic re-connection.

In case of power outage

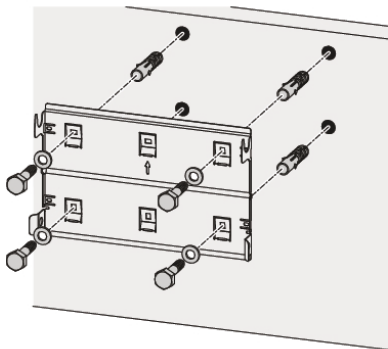
### Electric loads.

Up to 3 kW, single-phase

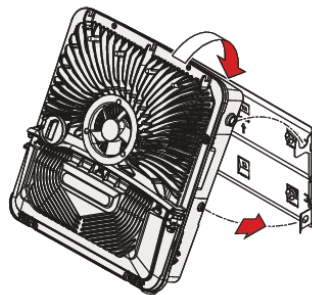
### Easy installation.

No additional installation necessary

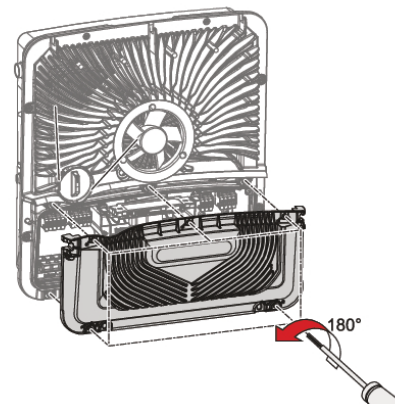
# EASY AND FAST INSTALLATION



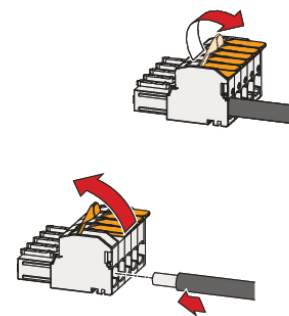
Lightweight wall bracket



Easy mounting concept -  
SnapIN -



Fastest access  
180° locking screws



No tool, no torque  
Spring connection

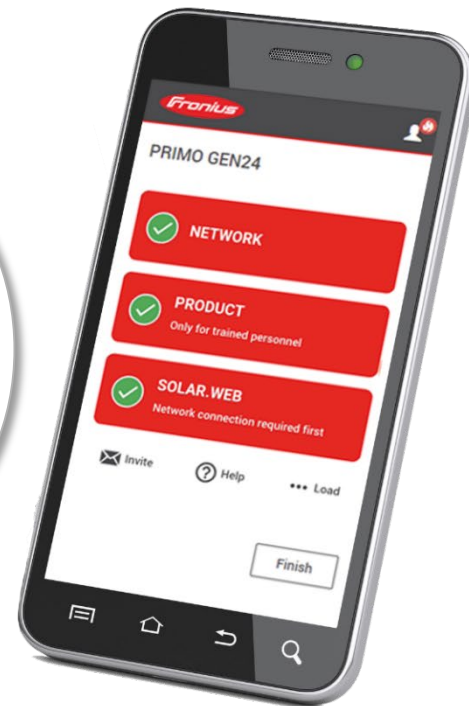
# COMMISSIONING VIA APP

## FRONIUS SOLAR.START

3 easy  
steps  
=  
user-friendly

Automatic  
WiFi-connection  
=  
Easiest  
commissioning

Fronius Solar.Start



# OPEN INTERFACES



## COMMUNICATION INTERFACES ON BOARD

LAN

WLAN

Modbus RTU/TCP SunSpec

Digital IO's

Fronius Solar API (JSON)



# FRONIUS WATTPILOT

CHARGING ON MY TERMS



# REQUIREMENTS OF **ELECTRIC CAR OWNERS**

*Quick charging*



*Cost-efficient charging*



*Intelligent charging*



# WATTPILOT

## CHARGING ON MY TERMS

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### CHARGING POWER

**/ 11 kW or 22 kW**

### A HOST OF FEATURES AND FUNCTIONS

- / PV surplus charge**
- / Compatible with variable electricity tariffs**
- / Intelligent charging modes**
- / RFID authentication**

### STANDALONE APP

- / Commissioning, operation and visualisation**



# VARIANTS OF THE **WATTPILOT**

	Wattpilot Go 11 J	Wattpilot Go 22 J	Wattpilot Home 11 J
Max. charging power	11 kW	22 kW	11 kW
Mains connection	CEE16 plug red 5-pin including neutral conductor	CEE 32 plug red 5-pin including neutral conductor	3~NPE 400 V / 230 V
Nominal current	6-16 A Single-phase or three-phase	6-32 A Single-phase or three-phase	6-16 A Single-phase or three-phase

# The intelligent charging solution for all electric car drivers. Even without PV system

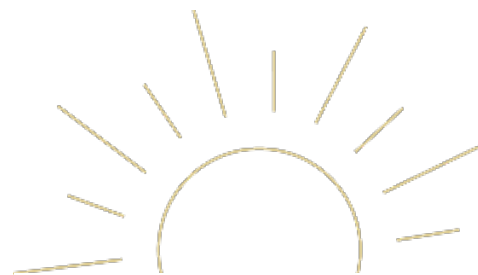


**FRONIUS TAURO**

**HARD SHELL. SMART CORE.**

# FRONIUS TAURO

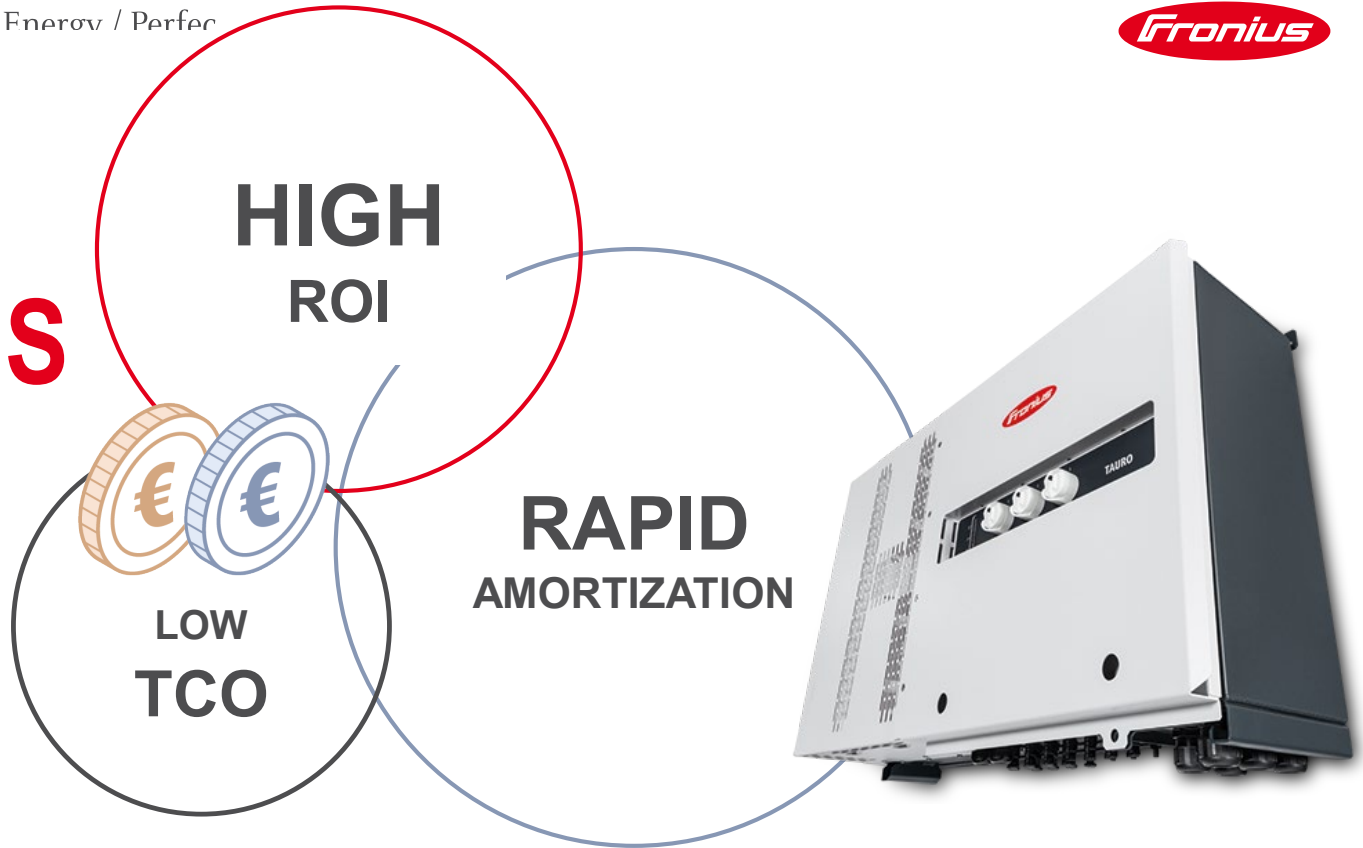
## ROBUST COMMERCIAL INVERTER



Fronius Tauro Eco D/P	Fronius Tauro Booster D/P
1 MPPT	3 MPPT
Power classes: 50 / 100 kW	Power class : 50 kW
DC input voltage: 580-1000 V	DC input voltage: 200-1000 V
2021	2021



# FRONIUS TAURO







**KASTORIA, GREECE**

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