

/ Perfect Welding / Solar Energy / Perfect Charging

Fronius

SOLEL
GROSSISTEN



Fronius Sverige AB
Nima Badri

FRONIUS GEN24 HYBRIDVÄXELRIKTARE

/ Perfect Welding / Solar Energy / Perfect Charging

The Company

Fronius



THE **BEGINNING** OF FRONIUS



PETTENBACH
1945



FROM PETTENBACH... ... AROUND THE AROUND





FRONIUS TEAM FOR NORTHERN EU

Team Sweden



William Petsén



Nima Badri

Team Denmark



Vinot Jayaraman

Team Benelux



Sjef Zijlmans



Jaap van Eijk



Team Fronius International



Christoph Staudinger
Area Sales Manager



Marianne Kordovan
Sales Backoffice



Laura Nachbauer
Sales Marketing

STABILITY FOR GENERATIONS



**FAMILY
OWNED
BUSINESS**



**UNTIL
TODAY**



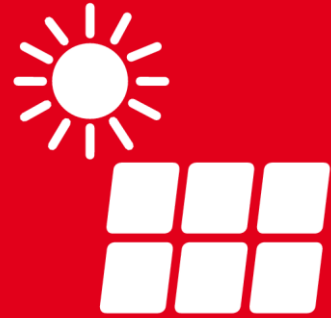
THREE BUSINESS UNITS



/ Perfect Welding / Solar Energy / Perfect Charging

THE BUSINESS UNIT

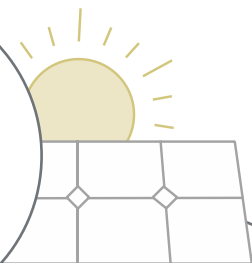
Solar Energy



SOLAR ENERGY IN NUMBERS

17,3 GW

installed
inverter
power



2

MILLION
installed inverters

24,2 TWh

of energy
generated
annually

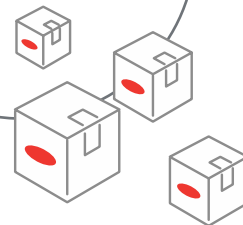


60

Export
countries

95%

Export ratio



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INVERTERS DESIGNED & PRODUCED IN AUSTRIA



FRONIUS PRODUKT UTVECKLING



VÄXELRIKTARE FÖR BOSTÄDER

Fronius Primo



- / 3.0 – 8.2 kW – 1- fas
- / 2 MPPT

Fronius Symo „små“



- / 3.0 – 8.2 kW – 3-fas
- / S / M variant (1 eller 2 MPPT)

Fronius Symo „stor“



- / 10 – 20 kW – 3-fas
- / 2 MPPT

VÄXELRIKTARE FÖR KOMMERSIELLA FASTIGHETER

Fronius Symo „stor“



- / 10 – 20 kW – 3-fas
- / 2 MPPT

Fronius Eco



- / 25, 27 kW – 3-fas
- / Vikt- och kostnadsoptimerad
- / 1 MPPT

FRONIUS HYBRID INVERTERS

Fronius Symo Hybrid



- / **3.0, 4.0 and 5.0 kW** – 3-Phase
- / Direct battery connection + 1 MPPT
- / 3-phase with back-up

Fronius Primo GEN24

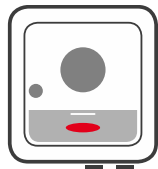


- / **3.0 – 6.0 kW** – Singel-Phase
- / Direct battery connection+ 2 MPPT
- / Singel-Phase with back-up

Fronius Symo GEN24



- / **3.0 to 10.0 kW** – 3-Phase
- / Direct battery connection+ 2 MPPT
- / 3-phase with back-up



FRONIUS **PRIMO** GEN24 PLUS

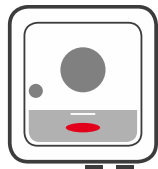
SINGLE-PHASE HYBRID-INVERTER



Power classes: 3 - 6 kW

2 MPPT Inputs: 22 A/ 12 A

1 battery input: 22 A



FRONIUS **SYMO** GEN24 PLUS

THREE-PHASE HYBRID INVERTER



Power classes: 3 / 4 / 5 kW

2 MPPT: 12,5 A / 12,5 A
1 battery input: 12,5 A

PV Point

Power classes: 6 / 8 / 10 kW

2 MPPT: 25 A / 12,5 A
1 battery input: 22 A

PV Point and full backup



FRONIUS
SYMO HYBRID

RELIABILITY OVER YEARS



Fronius
SYMO HYBRID

3-phase

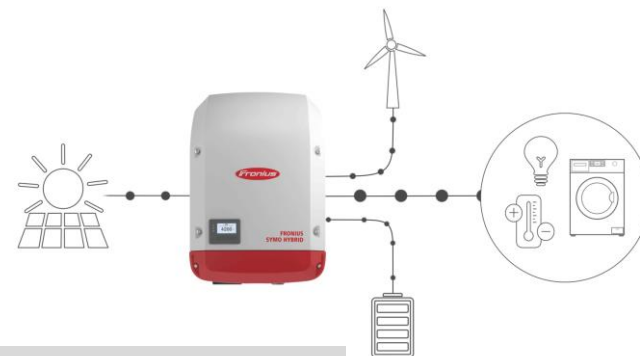
Power classes: 3 - 5 kW

1 MPPT + 1 battery input

1 MPPT / 1 battery input: 16 A

Up to 8 kW charging power

Full backup



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FRONIUS SYMO GEN24 PLUS

Flexible Design

Power Class: : 6.0, 8.0, 10.0 kW

Wide voltage range
Strings from 3 PV modules

Max. DC voltage: 1000 VDC
MPPT voltage range: 80 - 800 VDC

2 MPPT : 25 A / 12,5 A
1 battery : 22 A

150 % over dimensioning

**Superflex-Design
ON BOARD**



GEN24 PLUS HYBRID SOLUTION



BYD BATTERY-BOX PREMIUM HVS/HVM

Secure.

- / Lithium iron phosphate (LiFePO₄)

Modular.

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

Expansion

2.6 kWh (HVS) or 2.8 kWh (HVM) steps

Easy installation.

- / To be placed on the floor
- / Easy setup

COMBINATIONS MATRIX



	Symo Hybrid	Primo GEN24 Plus	Symo GEN24 Plus
BYD Battery-Box HV			
H 5.1	-	-	-
H 6.4	✓	-	-
H 7.7	✓	-	-
H 9.0	✓	-	-
H 10.2	✓	-	-
H 11.5	✓	-	-
BYD Battery-Box Premium HVS			
HVS 5.1	-	✓	✓
HVS 7.7	-	✓	✓
HVS 10.2	-	-	✓
HVS 12.8	-	-	-
BYD Battery-Box Premium HVM			
HVM 8.3	✓	-	-
HVM 11.0	✓	✓	✓
HVM 13.8	✓	✓	✓
HVM 16.6	✓	✓	✓
HVM 19.3	✓	✓	✓
HVM 22.1	✓	-	✓

CHARGING & DISCHARGING POWER

UP TO 9 KW EVEN IN FULL BACKUP POWER MODE

MAXIMUM CHARGING AND DISCHARGING POWER WITH GEN24 PLUS (KW)	HVS 5.1	HVS 7.7	HVS 10.2	HVM 11.0	HVM 13.8	HVM 16.6	HVM 19.3	HVM 22.1
Primo GEN24 3.0 Plus	3.13	3.13	-	3.13	3.13	3.13	3.13	-
Primo GEN24 3.6 Plus	3.81	3.81	-	3.81	3.81	3.81	3.81	-
Primo GEN24 4.0 Plus	4.14	4.14	-	4.14	4.14	4.14	4.14	-
Primo GEN24 4.6 Plus	4.51	4.75	-	4.51	4.75	4.75	4.75	-
Primo GEN24 5.0 Plus	4.51	5.17	-	4.51	5.17	5.17	5.17	-
Primo GEN24 6.0 Plus	4.51	6.20	-	4.51	5.63	6.20	6.20	-
Symo GEN24 3.0 Plus	2.56	3.13	3.13	2.56	3.13	3.13	3.13	3.13
Symo GEN24 4.0 Plus	2.56	3.84	4.17	2.56	3.20	3.84	4.17	4.17
Symo GEN24 5.0 Plus	2.56	3.84	5.12	2.56	3.20	3.84	4.48	5.12
Symo GEN24 6.0 Plus	4.51	6.22	6.22	4.51	5.63	6.22	6.22	6.22
Symo GEN24 8.0 Plus	4.51	6.76	8.26	4.51	5.63	6.76	7.88	8.26
Symo GEN24 10.0 Plus	4.51	6.76	9.01	4.51	5.63	6.76	7.88	9.01



FRONIUS
GEN24 PLUS AND SYMO HYBRID



BYD: PARALLEL OPERATION

STORAGE CASCADING

Parallel operation of up to 3 storage units

High capacities up to 57.96 kWh*

Realisation of small commercial systems

Full backup power capability



* Attention:
The combination of 3x HVM
22.1 is not possible!



FRONIUS GEN24 PLUS AND SYMO HYBRID



BYD: PARALLEL OPERATION

STORAGE CASCADING

Fronius Symo GEN24 Plus - SW: V1.10.5-0

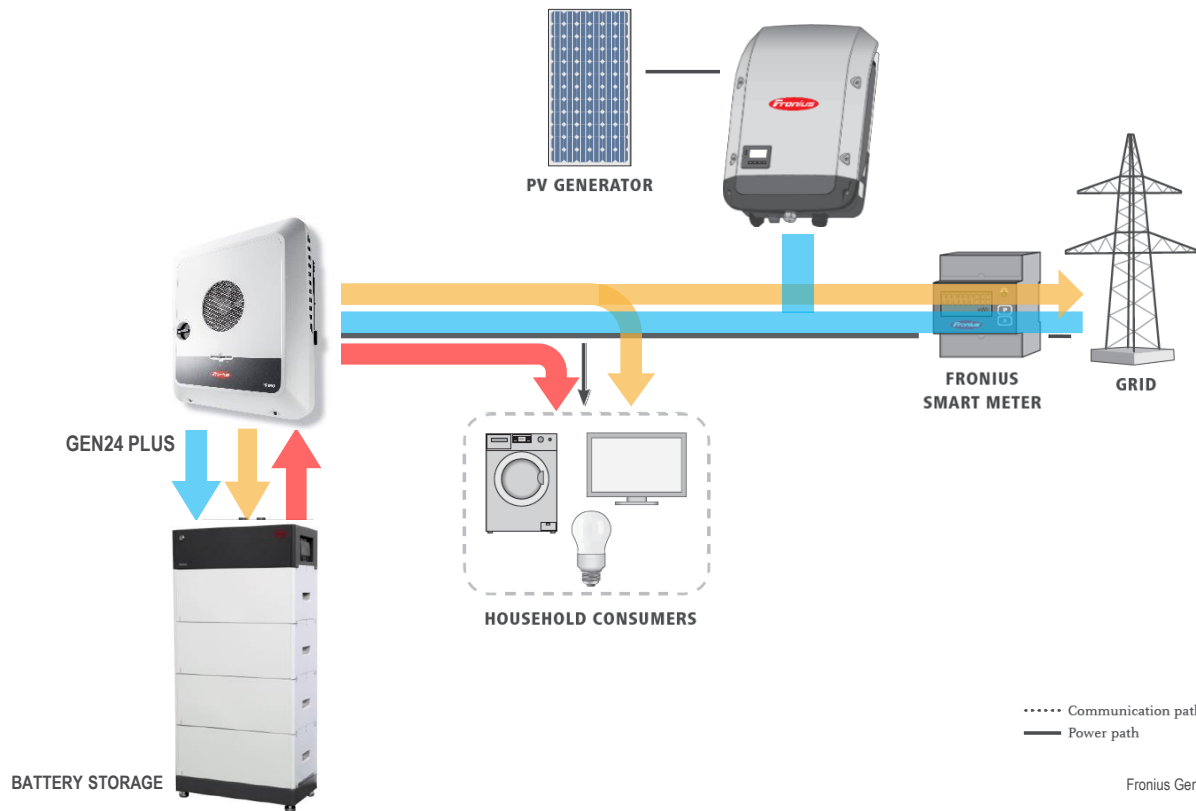
Fronius Symo Hybrid – SW: V1.16.7-1

Fronius software updates
Available since January 2021

	BYD BATTERY-BOX PREMIUM								
	2x / 3x HVS 5.1	2x / 3x HVS 7.7	2x / 3x HVS 10.2	2x / 3x HVM 11.0	2x / 3x HVM 13.8	2x / 3x HVM 16.6	2x / 3x HVM 19.3	2x HVM 22.1	3x HVM 22.1
Capacity [kWh]	10.24 / 15.36	15.36 / 23.04	20.48 / 30.72	22.08 / 33.12	27.60 / 41.40	33.12 / 49.68	38.64 / 57.96	44.16	66.24
Symo GEN24 Plus	✓	✓	✓	✓	✓	✓	✓	✓	-
Primo GEN24 Plus	✓	✓	-	✓	✓	✓	✓	-	-

	BYD BATTERY-BOX PREMIUM HVM						
	2x / 3x HVM 8.3	2x / 3x HVM 11.0	2x / 3x HVM 13.8	2x / 3x HVM 16.6	2x / 3x HVM 19.3	2x HVM 22.1	3x HVM 22.1
Capacity [kWh]	16.56 / 24.84	22.08 / 33.12	27.60 / 41.40	33.12 / 49.68	38.64 / 57.96	44.16	66.24
Symo Hybrid	✓	✓	✓	✓	✓	✓	-

MULTI FLOW TECHNOLOGY





FRONIUS
GEN24 PLUS

FOR SAFETY IN CASE OF GRID OUTAGE

INEXPENSIVE BACKUP POWER

Energy independence

Easy implementation

Basic back-up power connection

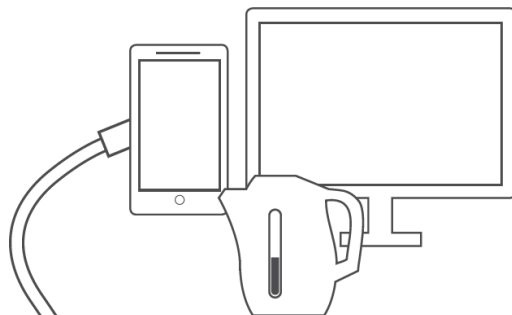
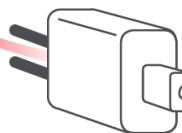
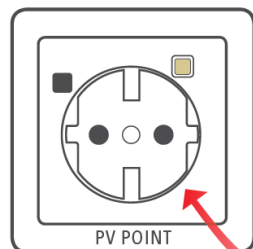
PV Point





FRONIUS
GEN24 PLUS

BASIC GRID BACKUP: PV POINT



PV POINT ON BOARD

Backup connection.

Only supplied in case of grid outage

Automatic re-connection.

In case of power outage

Electric loads.

Up to 3 kW, single-phase

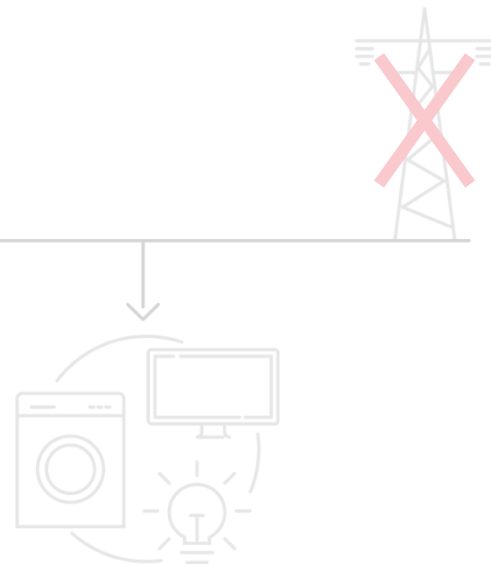
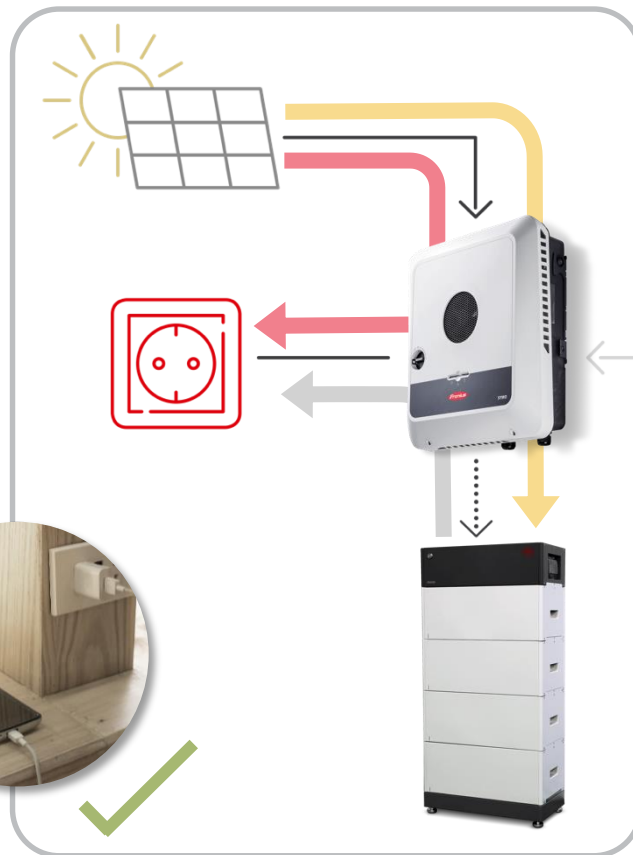
Easy installation.

No additional installation necessary



FRONIUS
GEN24 PLUS

BASIC GRID BACKUP: PV POINT



..... Communication path
—— Power path

MAXIMUM BACK-UP POWER: FULL-BACKUP



3-phase BACK-UP POWER

Full-Back-up

Supply of the whole household

Max supply.

Automatic switch (Switch over) <90 sec.

Electrical loads

1-phase and/or 3-phase up to 10 kw

Maximum energy consumption

Parallel (dis)charging (Multi Flow)

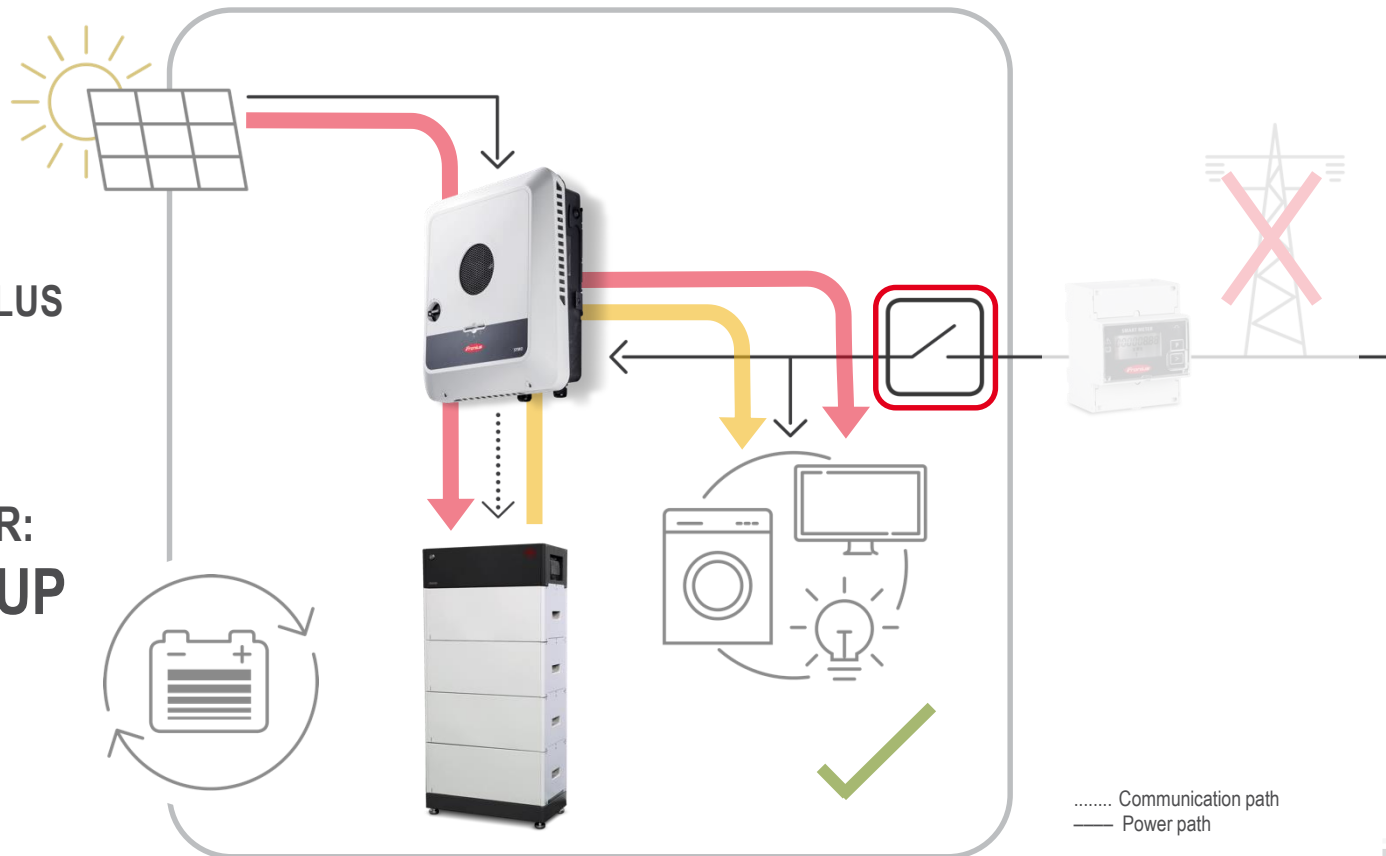
** Med Fronius Symo GEN24 Plus*

Fronius Gen24 Hybridväxelriktare



FRONIUS
GEN24 PLUS

**MAXIMUM
BACKUP POWER:
FULL BACKUP**



..... Communication path
—— Power path



FRONIUS
GEN24 PLUS

BEST PERFORMANCE DESPITE HEAT

ACTIVE COOLING TECHNOLOGY

Longer life span

Less costs

More yield

More flexible & easier installation



Active Cooling
ON BOARD

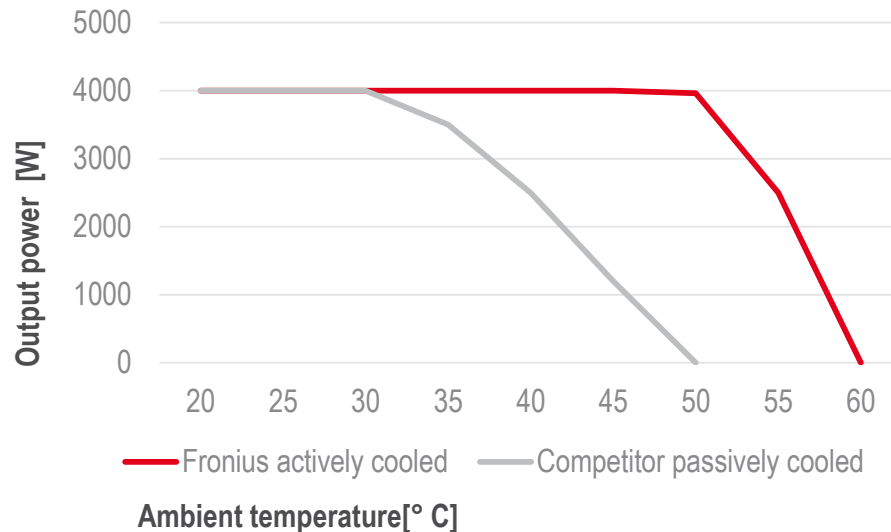


WHAT IS THE ADVANTAGE OF "ACTIVE COOLING" TECHNOLOGY?

Beneficial derating behavior with "Active Cooling concept"

- At 75-80 ° C heat temperature, the power is reduced
- If the temperature still rises, the inverter switches off automatically.
- Error state code

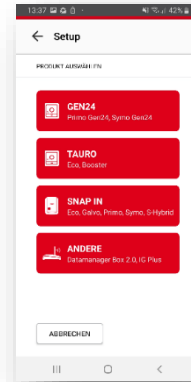
Temperature derating of Fronius Primo GEN24 4.0 Plus - compare with other competitors (According to EN 50524: 2009)



WIFI- ACCESS POINT

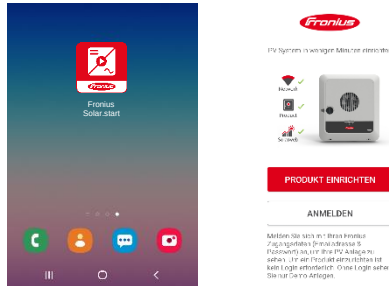
How to activate WiFi access point

- / Complete the wiring of the inverter and replace the cover
- / Install DATCOM
- / DC switch at position "1"
- / **1x press the button** (light sensory button) to activate WiFi access point



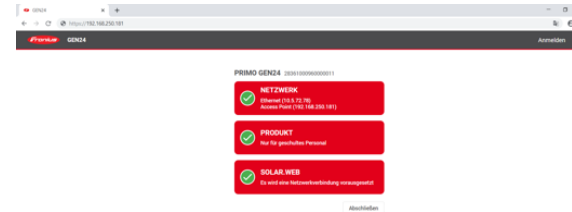
HOW TO COMMISSION GEN24

Mobile app



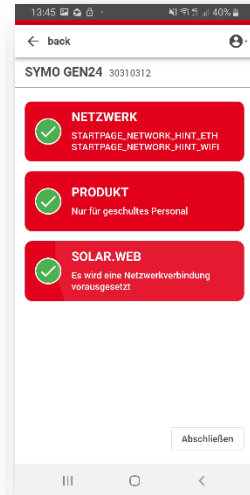
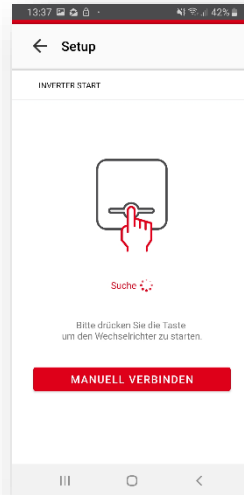
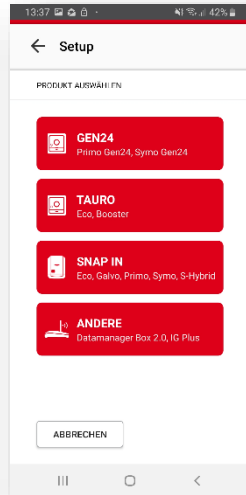
- / Smartphones / tablets
- / Available on the app store (iOS and Android)
- / Fronius Solar.start
- / Activate the WiFi access point
- / Automatic connection

Web browser



- / Available on devices with internet connection (Laptop, PC, tablets, etc....)
- / Open the WiFi access point
- / Open browser (preferably Google Chrome)
- Enter IP address: 192.168.250.181

COMMISSIONING- EASY VIA APP



/ For more detailed information see our video on YouTube: “GEN24 Plus – commissioning”.

REMOTE UPDATE VIA FRONIUS SOLAR.WEB

Fronius Solar.web > Settings > Components > Update

 Fronius IT Bussolengo

END DEMO X

← OVERVIEW | ANALYSIS | ENERGY BALANCE | REPORTS | SERVICE MESSAGES | **SETTINGS NEW**

 Fronius IT Bussolengo

END DEMO X

← PROFILE | IMAGE | CONTACTS | **COMPONENTS NEW** | PERMISSIONS | TARIFFS | SERVICE MESSAGES | MORE ▾

Data sources

[Show all](#)

Datalogger ID	Online ⓘ	IP Address ⓘ	active until ⓘ	Update ⓘ
239.14294		212.88.31.140	Active	Installed: 1.8.2-1 Available: 1.6.1-6 ⓘ

Ohmpilot

UPDATE

Type	Serial number	Datalogger ID	Select all	Update
Ohmpilot	28355684	239.14294	☐	Installed: 60 Available: 1.0.13-1 ⓘ

FRONIUS GARANTI

Garantimodeller med och utan registrering

- / **2 år garanti plus** (material, service, transport)
- / **Förlängbar garanti med produktregistrering** på Fronius Solar.web
 - / Alternativ 1: **ytterligare 3 år Fronius garanti plus** (material, service, transport)
 - / Alternativ 2: **ytterligare 5 år Fronius garanti** (material)

WARRANTY WITHOUT REGISTERING	WARRANTY MODELS THAT CAN BE ACTIVATED AFTER REGISTERING	
2 YEARS FRONIUS WARRANTY PLUS	+ 3 YEARS FRONIUS WARRANTY PLUS	= 5 YEARS
	+ 5 YEARS FRONIUS WARRANTY	= 7 YEARS

- / Ytterligare förlängning av garantin är möjlig när som helst (högst 15 år)

/ Perfect Welding / Solar Energy / Perfect Charging



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