



MAXIMUM INDEPENDENCE

## THE PATH TO MAXIMUM INDEPENDENCE

Fronius offers an array of customized storage solutions to satisfy every need, from laying the groundwork for a future storage solution to installing a fully integrated system: discover our storage solutions designed with Fronius Hybrid Inverter and Fronius Ohmpilot.





**Smart Meter** 

# DC-COUPLED BATTERY STORAGE SYSTEM WITH THERMAL STORAGE SYSTEM AND GRID BACKUP FUNCTION

The complete system with grid backup function increases self-consumption to up to 100%, enabling maximum independence.

## DC-COUPLED BATTERY STORAGE SYSTEM WITH GRID BACKUP FUNCTION

The storage solution with Full Backup function delivers proven quality.

#### DC-COUPLED BATTERY STORAGE SYSTEM

The Fronius Symo Hybrid inverter can be combined with the BYD Battery-Box Premium HVM. The GEN24 Plus is compatible with BYD Battery-Box Premium HVS/HVM – and together they create a competitively priced storage solution for quality- and cost-conscious system owners.

#### AC-COUPLED BATTERY STORAGE SYSTEM

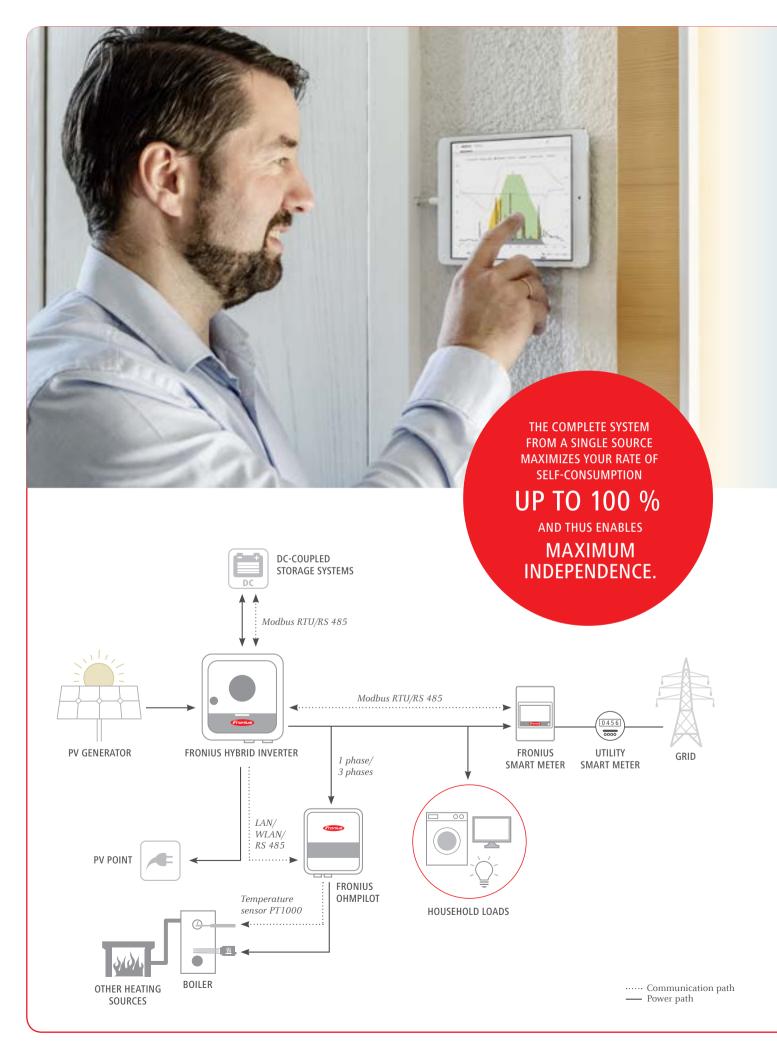
The inverters can be easily combined with an AC-coupled storage system.

#### THERMAL STORAGE SYSTEM

The Fronius Ohmpilot not only maximizes your rate of self-consumption by heating water but is also the simplest storage solution from Fronius.

#### STORAGE SYSTEM READY WITH HYBRID INVERTERS

The Hybrid Inverters, when combined with a Fronius Smart Meter and Solar.web, provide an energy consumption overview and lay the groundwork for future storage systems.



# THE SOLUTION FOR MAXIMUM INDEPENDENCE

TECHNICAL DATA	PRIMO GEN24 Plus	SYMO GI	EN24 Plus
Single-phase/Three-phase	Single-phase 230 V	3-phase	230/400 V
Power classes	3/3.6/4/4.6/5/6 kW	3/4/5 kW *	6/8/10 kW
MPP-Tracker	2		2
Degree of protection	IP 66	IP	66
Dimensions (height x width x depth)	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 (U <sub>dc min</sub> —U <sub>dc max</sub> )	65-600 V	80-1	,000 V
Basic grid backup	integrated	integ	grated

 $<sup>^{*}</sup>$ Full Backup option is not available with the Symo GEN24 Plus 3/4/5 kW.











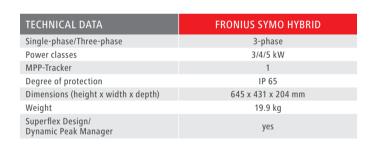




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The GEN24 Plus provides even more independence with the hybrid function and the integrated basic grid backup function PV point.









The Fronius Symo Hybrid is the heart of every storage solution.

TECHNICAL DATA	FRONIUS OHMPILOT
Frequency (Input)	50.0 Hz
Max. input current (lac max)	1 x 16 A/3 x 16 A
Input voltage	230 V/400 V
Max. output power	3 kW / 9 kW (each continuously adjustable)
AC output current (lac nom)	1 x 13 A/3 x 13 A
Dimensions (height x width x depth)	350 x 280 x 110 mm
Output voltage	230 V/400 V
Frequency (Output)	50.0 Hz





The Fronius Ohmpilot allows a home owner to heat water with excess solar energy that is otherwise given away.

TECHNICAL DATA	FRONIUS SMART METER	
Options	100A-1	65A-3/5kA-3
Grid connection	Single-phase	Three-phase
Current measurement	Direct connection or via CTs	
Dimensions (height x width x depth)	91.5 x 35.8 x 63.0 mm	91.5 x 53.8 x 63.0 mm
Communication	Modb	us RTU



The Fronius Smart Meter together with Fronius Solar.web allows installers to get more insight into their customers' needs.

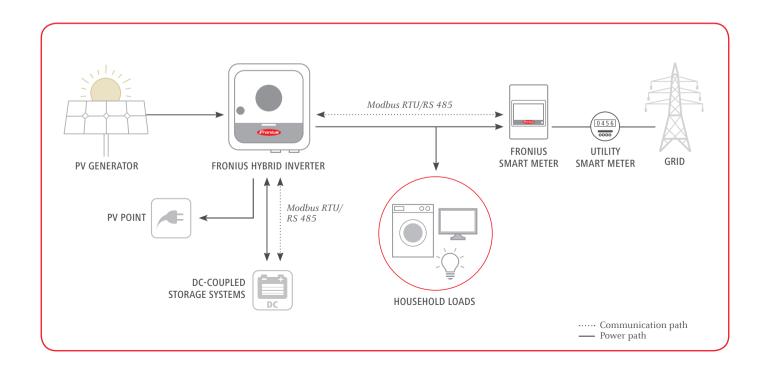
# COMPATIBILITY WITH BATTERIES FROM LEADING MANUFACTURERS

#### DC-COUPLED STORAGE SYSTEMS

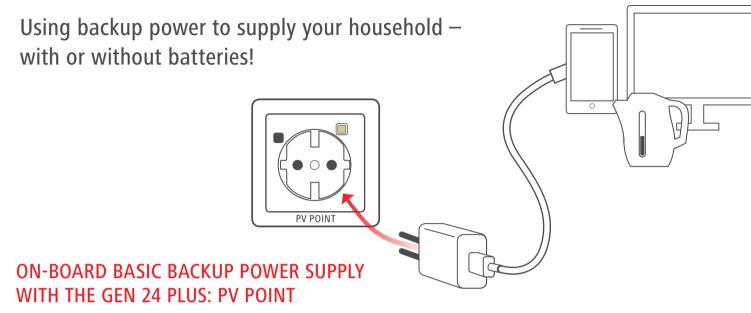
Fronius Hybrid Inverters are compatible with BYD Battery-Box Premium HVS/HVM storage systems. These can be combined to produce competitively priced storage solutions for quality- and cost-conscious system owners.

MANUFACTURER	SYMO HYBRID	PRIMO GEN24 PLUS	SYMO GEN24 PLUS	ADVANTAGES
BYD BATTERY-BOX PREMIUM HVS				
HVS 5.1		•	•	
HVS 7.7		•	•	Safe LiFePO4-technology
HVS 10.2			•	
HVS 12.8				
BYD BATTERY-BOX PREMIUM HVM				
HVM 8.3	•			
HVM 11.0	•	•	•	
HVM 13.8	•	•	•	Flexible thanks to modular extensions
HVM 16.6	•	•	•	
HVM 19.3	•	•	•	
HVM 22.1	•		•	

In combination with all Fronius Hybrid Inverters, up to 3 batteries can be operated in parallel. This allows high storage capacities for small commercial systems. Please note: It is not possible to combine three HVM 22.1! Parallel operation depends on the respective availability in the country and certification.



**BACKUP POWER SOLUTIONS** 



The PV Point – the integrated basic backup power function – is one of the most innovative features of the Fronius GEN24 Plus. It is a backup power socket which can have a load of up to 3 kW. The PV Point offers a cost-efficient backup power solution for the price-conscious system owner.

#### **BENEFITS:**

/ No costly additional installation work necessary

/ Supplies households with one-phase loads of up to 3 kW

/ Automatic activation in case of a grid outage

# FULL BACKUP OPTION FOR MAXIMUM INDEPENDENCE

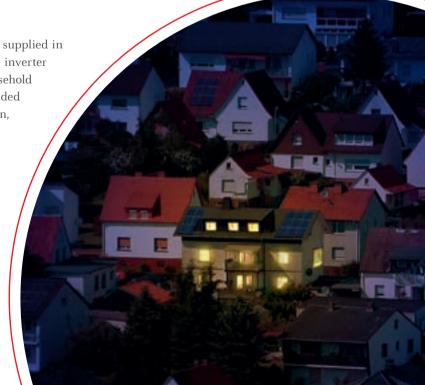
With the Full Backup option\*, the whole household can be supplied in backup power situations. As soon as the grid cuts out, the inverter switches operation to backup power and all loads in the household are supplied via the photovoltaic system and batteries, provided there is enough energy available. With the Full Backup version, it is possible to supply one-phase as well as three-phase loads, including electric stoves or heat pumps. The Full Backup option does however require a battery storage system.

#### BENEFITS:

/ Supplies the entire household (even three-phase loads)

/ Automatic switch to backup power in the event of grid failure

/ Efficient energy flows due to the Multi Flow Technology, even in backup power situations



 $^{*}$ The Full Backup option can be implemented with the Primo GEN24 Plus 3–6 kW and the Symo GEN24 Plus 6–10 kW.

### FRONIUS THERMAL STORAGE SYSTEM

A large proportion of energy in the home is used for heating. Using energy from your own PV system for heating increases the self-consumption of your PV system as well as the yield – making use of PV energy in your own home a smart move.

Thanks to the Fronius Ohmpilot consumption regulator, PV electricity can also be used very efficiently to provide hot water. As soon as surplus energy is available, it is fed directly to resistive consumers such as heating elements and towel-heating radiators via the Fronius Ohmpilot. The result? Optimum use of PV energy in your own home. All this is provided by a fully integrated system from a single source.



#### FRONIUS SMART METER AND FRONIUS SOLAR.WEB



The Fronius Smart Meter is a bidirectional meter that optimizes self-consumption.

Together with Fronius Solar.web, the Smart Meter presents a clear overview of power consumption within the home. In the storage solutions, the Fronius Smart Meter provides

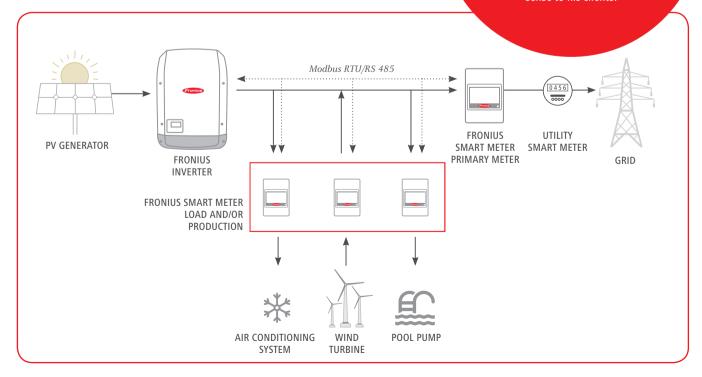
perfectly coordinated management of the various energy flows and optimizes overall energy management.

# FRONIUS ENERGY PROFILING

allows for well-grounded energy use analyses.

Thus it enables the installer to provide a personalized, data-based customer service.

Using Fronius Energy Profiling, he is able to offer customized solutions that truly make sense to his clients.



## **OVERVIEW** FRONIUS STORAGE SOLUTIONS









FUNCTIONS/PROPERTIES	THERMAL STORA	DC-COUPLED BATTERY STORAGE SYSTEM WITH THERMAL STORAGE SYSTEM AND GRID BACKUP FUNCTION		TORAGE SYSTEM WITH P FUNCTION
BATTERY STORAGE SOLUTION	BYD Battery-Box Premium HVS/HVM	BYD Battery-Box Premium HVM	BYD Battery-Box Premium HVS/ HVM	BYD Battery-Box Premium HVM
THERMAL STORAGE SOLUTION	•	•		
GRID BACKUP FUNCTION	•	•	•	•
DEGREE OF SELF-SUFFICIENCY	Very high	Very high	High	High









FUNCTIONS/PROPERTIES	AC-COUPLED BATTERY STORAGE SYSTEM	THERMAL STORAGE SYSTEM
BATTERY STORAGE SOLUTION	•	
THERMAL STORAGE SOLUTION		•
GRID BACKUP FUNCTION	Under certain conditions *	Under certain conditions *
DEGREE OF SELF-SUFFICIENCY	High	Medium





FUNCTIONS/PROPERTIES	STORAGE SYSTEM READY WITH HYBRID INVERTERS
BATTERY STORAGE SOLUTION	
THERMAL STORAGE SOLUTION	
GRID BACKUP FUNCTION	Under certain conditions *
DEGREE OF SELF-SUFFICIENCY	Low

<sup>\*</sup> The grid back-up function varies between each inverter and/or battery

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# 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.

#### PERFECT WELDING

Our mission is Perfect Welding; a task we have approached with passion and skill for decades in order that our customers can join materials with the perfect weld seam. With our outstanding technologies and services and together with our customer's applications, not only do we solve their specific welding technology problems, but we also make a substantial contribution to increasing their productivity.

#### **SOLAR ENERGY**

Our mission is to achieve 24 hours of sun. Day after day we are hard at work turning this vision of a future in which 100% of the world's energy needs are covered by renewable sources into a reality. We are therefore concentrating on solutions to intelligently, efficiently and economically generate, store, distribute and consume solar energy.

#### PERFECT CHARGING

As know-how leaders in the world of battery charging, we deliver exceptional solutions to create the maximum benefit for our customers. For the intralogistics sector, we are committed to energy flow optimisation for electric forklift trucks and are constantly striving for the next innovation. Our powerful charging systems for vehicle workshops guarantee safe and reliable processes.

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