



**GEN24 Backup  
Power Solution  
Hybrid Inverter**



# Fronius GEN24 Backup Power Solution Hybrid Inverter Owner's Manual

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**Fronius GEN24 Backup Power Solution Hybrid Inverter**



### Specifications:

- **Product Name:** Fronius Backup power solution
- **Components:** Fronius GEN24 / GEN24 Plus, backup power switching components, compatible Batteriespeichern, and Fronius Smart Meter
- **Advantages:** Customised backup power solutions, space-saving installation, black start capability, supply for the entire household, real three-phase AC

### Product Usage Instructions

- **Customized Backup Power Solutions:**

Choose the appropriate backup power solution based on your household requirements, whether it's single-phase or three-phase, with automatic or manual switching, and with or without energy storage.

- **Components from a Single Source:**

Fronius provides perfectly matched backup power components including inverters, PV Points, and switching components all in European brand quality.

- **Black Start Capable:**

In case of a power failure, Fronius backup power components allow PV systems to start independently, supply loads, and charge the battery using PV energy without grid power.

- **Space-saving Installation:**

The Fronius Backup Controller eliminates the need for external switching boxes by installing manual and automatic switching components in switchboards to save space and cables.

- **Supply for the Entire Household:**

Utilize Full Backup functions to provide backup power to all household consumers with maximum energy utilization through simultaneous charging of the energy storage system.

- **Real Three-Phase AC:**

The Fronius Symo GEN24 Plus generates genuine three-phase alternating current for optimal performance even in backup power mode.

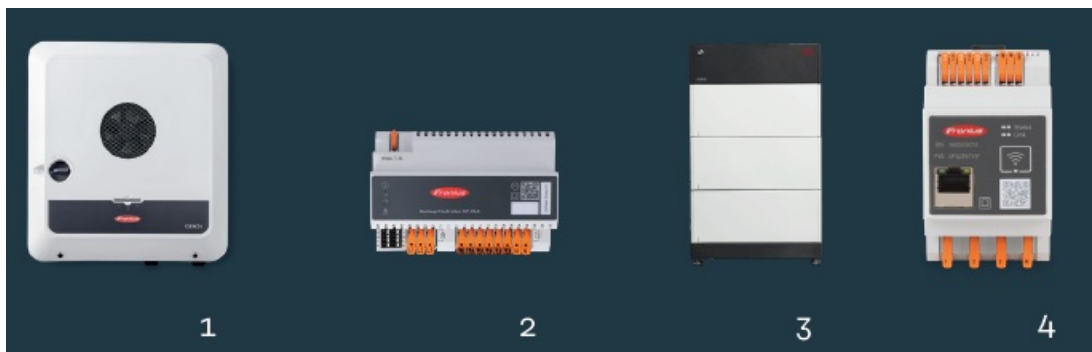
#### **FAQ:**

**Q: Do I need a battery storage system for the operation of a PV Point?**

A: Battery storage is optional but recommended for stable backup power operation. Compatible types of BYD Battery-Box Premium HVS and HVM are listed for use with the Fronius Smart Meter.

#### **Fronius Backup power solution**

With Fronius GEN24 / GEN24 Plus<sup>1</sup>, backup power switching components<sup>2</sup>, compatible Batteriespeichern<sup>3</sup> and Fronius Smart Meter<sup>4</sup>



#### **All advantages at a glance**

1. Customised backup power solutions
2. Everything from a single source
3. Black start capable
4. Space-saving installation
5. Supply for the entire household
6. Real three-phase AC

#### **Everything for energy security**

**1. Customized backup power solutions**

You can rely on Fronius when it comes to backup power. Our backup power portfolio includes the right solution for every household. Whether a single-phase or three-phase supply for a single socket or the entire house, with automatic or manual switching, including or excluding energy storage – a customized system fulfills all customer requirements.

**2. Everything from a single source**

When it comes to energy security, those who count on Fronius rely on perfectly matched backup power components. From the inverter with integrated PV Point to the separate PV Point Comfort through to switching components we supply everything from a single source in European brand quality

**3. Black start capable**

With Fronius backup power components, PV systems can start up independently in the event of a prolonged

power failure, supply loads, and charge the battery for as long as PV energy is available – without any power from the grid.

#### 4. Space-saving installation

No space? No problem. The Fronius Backup Controller eliminates the need for external switching boxes. Our manual and automatic switching components are installed in the switchboards to save cables and space.

#### 5. Supply of the entire household

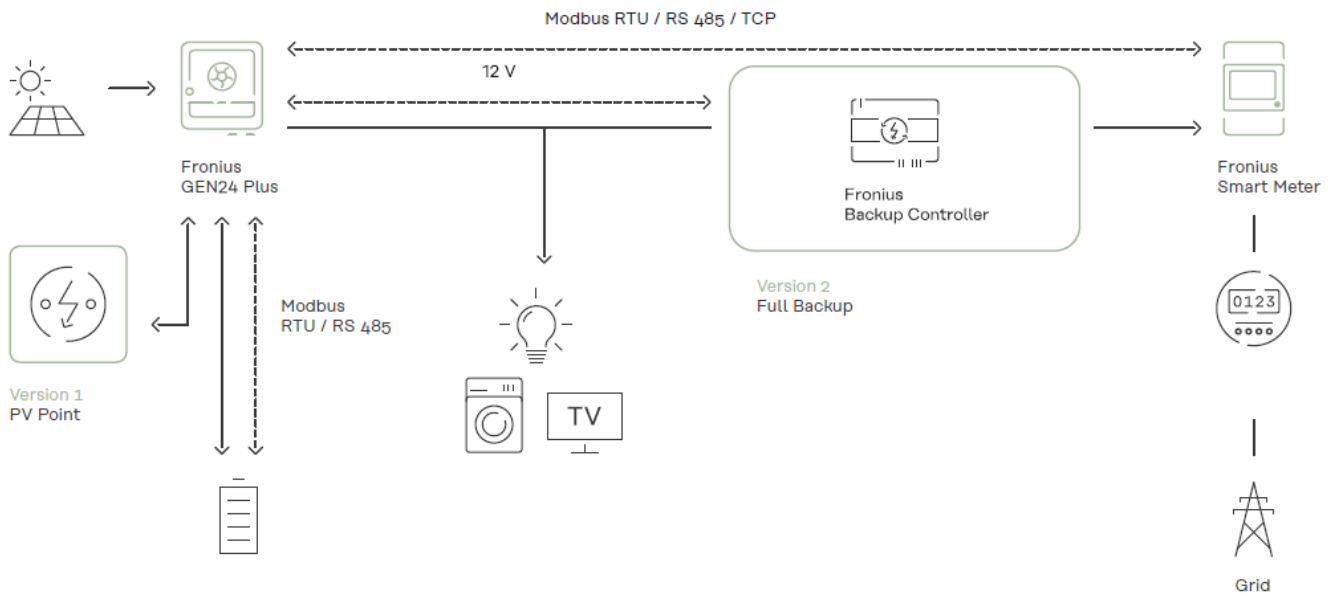
The Full Backup functions from Fronius enable a backup power supply for all consumers in the household with maximum energy utilization through simultaneous charging of the energy storage system.

#### 6. Three-phase current

Fronius is the ideal solution for power-intensive loads. The Fronius Symo GEN24 Plus 6.0 – 12.0 generates genuine three-phase alternating current for maximum performance even in backup power mode.

If the load in the household < PV production/discharge capacity of the storage system

### Configuration scheme



### PV Point

- Integrated backup power function
- Supplied socket in the event of a power outage
- 1-phase up to 3 kW continuous power
- Optional battery storage

Device	Type	Notes
Fronius Inverter	Fronius Primo/Symo GEN 24	The backup power frequency can be set on the inverter user interface in the range between 45 and 55 Hertz.
	Fronius Primo/Symo GEN 24 Plus	

<b>Protection</b>	Residual current circuit breaker type A 30 mA	
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<b>Energy meter</b>	Fronius Smart Meter 63A-1, 63A-3, 50kA-3	For the Fronius Smart Meter 50kA-3, current transformers with an output current of 5 A must be used
	Smart Meter IP	For the Smart Meter IP, current transformers with an output voltage of 333 mV must be used

<b>Battery storage (optional)</b>	BYD Battery-Box Premium HVS/HVM	<p>Compatible types of the BYD Battery-Box Premium HVS: HVS 5.1; HVS 7.7; HVS 10.2; HVS 12.8</p> <p>Compatible types of the BYD Battery-Box Premium HVM: HVM 11.0; HVM 13.8;</p> <p>BYD Battery-Box HVM 16.6; HVM 19.3; HVM 22.1</p> <p>Battery storage is optional for the operation of a PV Point. However, a battery storage system is recommended for stable backup power operation.</p>
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## Full Backup

- Complete supply of the entire household with full AC output power
- Maximum supply through automatic switching
- Space-saving installation directly in the switch cabinet
- Fronius Symo GEN24 6.0 – 12.0 Plus supplies 1- and 3-phase electrical loads including real 3-phase AC loads
- Maximum energy utilization through simultaneous operation of consumers and battery charging

Device	Type	Notes
<b>Fronius Inverter</b>	Fronius Primo and Symo* GEN24 Plus	The backup power frequency can be set on the inverter user interface in the range between 45 and 55 Hertz.

<b>Switching components</b>	Fronius Backup Controller – 3P-35A	<p>Automatic switching solution Maximum current carrying capacity: 35A</p> <p>Space-saving installation in switch cabinet possible</p>
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<b>Energy meter</b>	Fronius Smart Meter 63A-1, 63A-3, 50kA-3	For the Fronius Smart Meter 50kA-3, current transformers with an output current of 5 A must be used
	Smart Meter IP	For the Smart Meter IP, current transformers with an output voltage of 333 mV must be used

<b>Battery storage</b>	BYD Battery-Box Premium HVS/HVM	A battery storage unit is required for Full Backup operation.
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The Full Backup option is not available for the Fronius Symo GEN24 3.0 – 5.0 Plus.

#### Full backup services:

Full backup services:	Primo GEN24 Plus		Symo GEN24 Plus	
Performance class	3.0 – 6.0	8.0 – 10.0	6.0 – 10.0	12.0 SC
Power [VA] – Overload 5 sec.	6200	11024	12400	12765
Phase power [VA] – Continuous	–	–	3680	4133
Phase power [VA] – 5 sec.	–	–	4133	4255

## Monitoring & Digital Tools

### The right digital tool for every phase of the PV system.

From the planning to the commissioning phase and from monitoring to service – we support you as an installer with your work so you can provide your customers with the best possible advice and support at all times. And we make sure our support is exceptionally user-friendly, detailed, and reliable:

- **Planning**

If you are planning a new project, Fronius Solar.creator is your tool of choice. With this free online configuration tool, you can plan completely independently of location, design the PV system in just a few steps, and use it as a consultation tool with your customer. If an existing system needs to be extended with battery storage or the like, the effects can be simulated in advance with Fronius Solar.web.

- **Commissioning**

Fronius Solar.start makes system installation more efficient than ever. The app guides you through the setup of Fronius devices in 3 steps and turns commissioning, including configuration, into a simple process that takes only a few minutes.

- **Monitoring**

Once the PV system is successfully in operation, the energy utilization begins – but so does the system optimization via monitoring. With Fronius Solar.web, we provide you with the best tool for doing this. It allows you to keep a reliable overview of all the PV systems you manage, so you can effectively increase their performance based on data.

- **Service**

Fronius Solar.SOS supports you in diagnosing and rectifying faults and in ordering the correct replacement components. And it does this around the clock, regardless of the standard service times, and in the local language.

## Have Any Questions



Here you will find  
our how-to videos




You can access recordings  
of our webinars here.

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### Documents / Resources

	<a href="#">Fronius GEN24 Backup Power Solution Hybrid Inverter</a> [pdf] Owner's Manual GEN24, GEN24 Backup Power Solution Hybrid Inverter, Backup Power Solution Hybrid Inverter , Power Solution Hybrid Inverter, Hybrid Inverter, Inverter
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### References

- [User Manual](#)

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