

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



# 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.\*

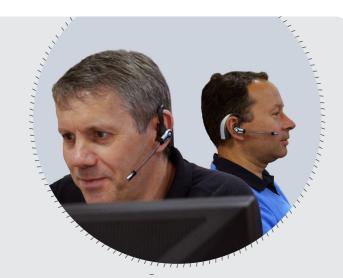
warranty.\*

SYSTEM PARTNER

\*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.



/ Today Fronius exports over 90 percent of its products though 30 international subsidiaries and sales distributors in more than 60 countries. With over 1,200 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.





	FRONIUS GALVO (REPOWERING ONLY)	FRONIUS PRIMO
Phase Category	Single-Phase	
Size Options	1.5, 2, 2.5, 3 & 3.1 kW	3, 3.5, 3.6, 4, 4.6, 5, 6 & 8.2 kW
MPP Tracker	1	2
IP Rating	IP65	IP65
Dimensions	645 x 431 x 204 mm	645 x 431 x 204 mm
Weight	16.8 kg	21.5 kg
Superflex Design		•
Dynamic Peak Manager		•

# CHARACTERISTICS OF ALL FRONIUS SNAPINVERTERS



#### **SNAPINVERTER TECHNOLOGY**

/ Simple, standardised mounting system, user interface and set-up procedure.

/ Connection area separate from power stage set compartment.

/ Hinged design for easy installation and servicing.



## 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 (JSON).



## **SMART GRID READY**

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

/ Enables stable grid operation when PV density is high and prevents interruptions to feed-in.



#### **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.







FRONIUS SYMO 3 - 8.2 KW	FRONIUS SYMO 10 - 20 KW	FRONIUS ECO		
Three-Phase				
3, 3.7, 4.5, 5, 6, 7 & 8.2 kW	10, 12.5, 15, 17.5 & 20 kW	25 & 27 kW		
2	2	1		
IP65	IP66	IP66		
645 x 431 x 204 mm	725 x 510 x 225 mm	725 x 510 x 225 mm		
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		
	•			
•	•	•		

# CHARACTERISTICS OF SPECIFIC FRONIUS SNAPINVERTERS



#### SUPERFLEX DESIGN

/ Two MPP trackers in conjunction with a high system voltage and wide DC input voltage range; every DC input has its own MPP tracker.

/ Single inverter for different roof orientations, shading of one or two strings or the use of residual modules.



## DYNAMIC PEAK MANAGER

/ MPP tracking algorithm.

/ Automatically checks the characteristic curve on a regular basis and finds the Global Maximum Power Point (GMPP), even in partial shade.



## **READY FOR STORAGE**

/ SnapINverters can be expanded into a comprehensive storage solution at any time.
/ Both single and three-phase inverters are compatible with the SOLARWATT MyReserve.



#### 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.

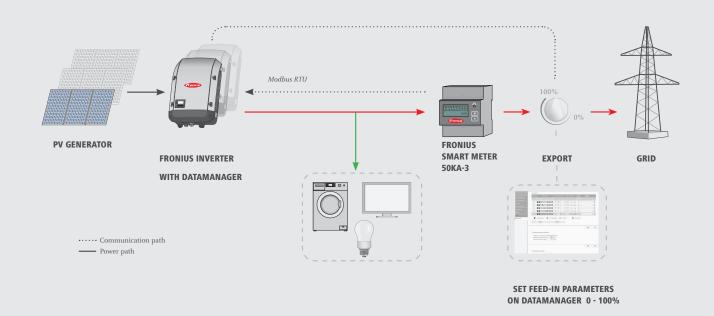
/ Analyse usage for system expansion such as energy storage.

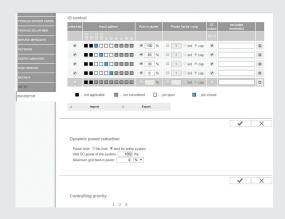


# EXPORT LIMITATION? NO PROBLEM. CHOOSE THE FRONIUS SOLUTION FOR LIMITED OR ZERO FEED-IN SITUATIONS

/ The Fronius Feed-in Limitation system is a simple and economical solution using the Fronius Smart Meter and Fronius Datamanager 2.0 and fully complies with the current UK 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 Webinterface and is set in whole percentages from 0 - 100% or as a value in Watts.





/ Datamanager 2.0 webinterface screen. Simply enter a whole percentage from 0 - 100%, or as a value in Watts, for maximum grid feed-in power

#### / Dynamic Feed-in Control

If there are feed-in limits (i.e. max. 70% of the kWp or max. 50 kW) self-consumption should first be considered, before the inverters power is reduced. With the Fronius dynamic feed-in control it is possible to set an individual power limit and to connect the Fronius Smart Meter directly to the inverter. The setting can easily be done on the webinterface of the inverter or Fronius Datamanager.



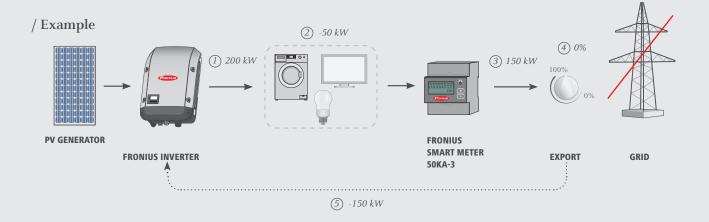
#### / What equipment do I need?

All you need is a Fronius Smart Meter and a Fronius Snapinverter (Fronius Symo, Fronius Primo, Fronius Galvo, Fronius Eco) with built in Datamanager 2.0 or external Datamanager 2.0 Box which must have the latest software version installed (for zero export requirements contact us directly). For large installations, only one Datamanager is required for up to 100 inverters\*.

The Fronius Smart Meter is a bidirectional meter which optimises self-consumption and records the building's load curve. Thanks to highly accurate measurements and rapid communication via the Modbus RTU interface, dynamic feed-in control when feed-in limits are imposed is fast and accurate. Together with Fronius Datamanager 2.0, Feed-in limitation set-up is made easy.



/Visualisation of energy flows on Solar.web



- ① PV system produces 200 kW
- ② Self consumption of 50 kW
- ③ Possible export to grid 150 kW
- (4) Set export limit to 0% on Datamanager 2.0
- (5) Inverter reduces power output by 150 kW to meet 0% export limit
- $^*$ Installation/inverter location/cable type/cable run length dependent.

# THE PERFECTION IS IN THE DETAIL

/ Fronius provide a range of products to assist installers before, during and after installation to ensure that maximum efficiency and reliability is achieved.



/ 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 4,760 employees worldwide and 1,253 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