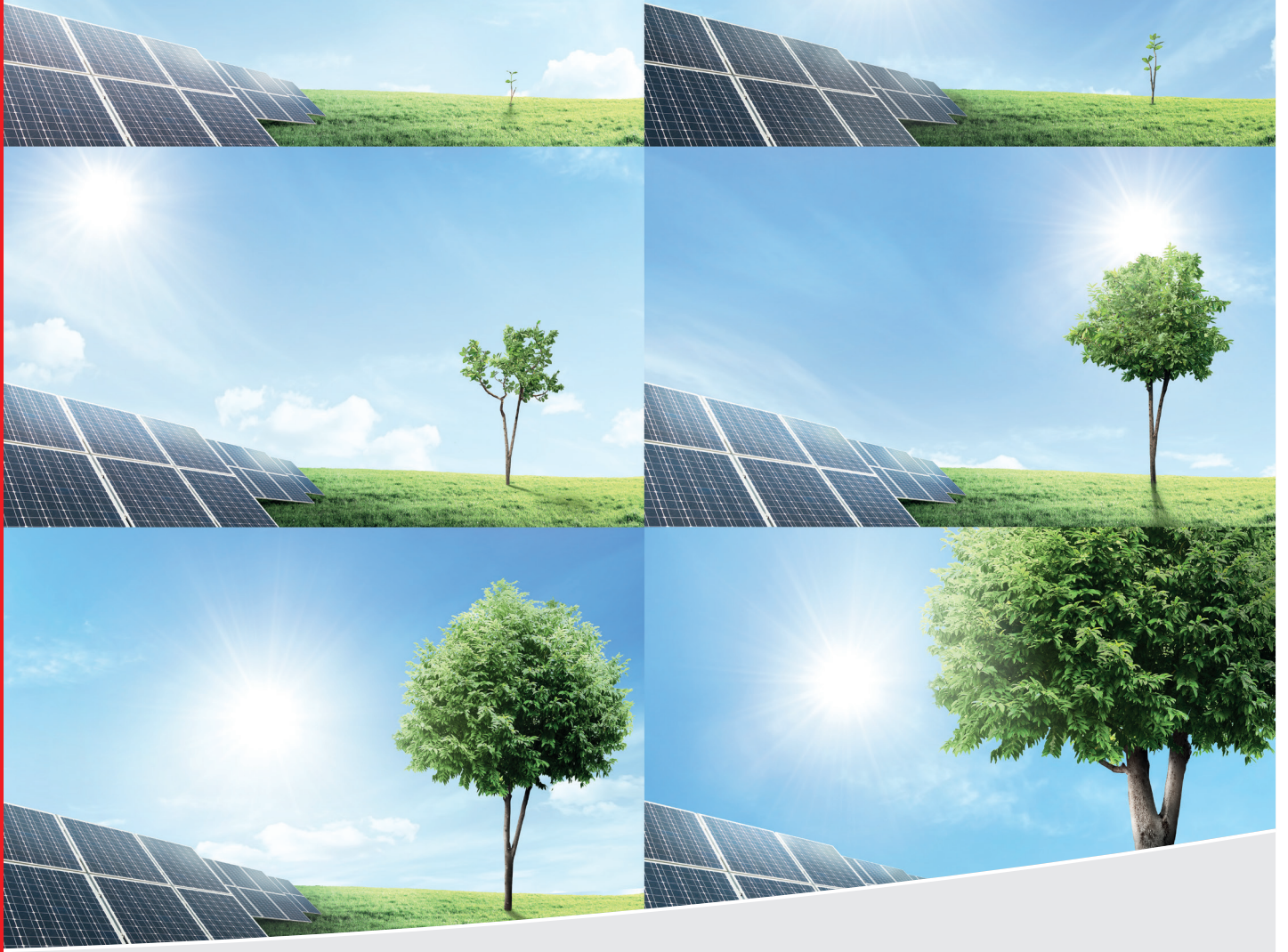


/ Perfect Welding / Solar Energy / Perfect Charging



SHIFTING THE LIMITS



**WE OFFER SOLAR  
SOLUTIONS THAT LAST.  
FOR DECADES  
OF SUNRISES TO COME.**

# FRONIUS: LEADING THE WAY FOR OVER 70 YEARS

## SHIFTING THE LIMITS – RIGHT FROM THE START

/ When Günter Fronius developed the first battery charging system in 1945, he laid the foundations for what Fronius as a company has represented for over 70 years: the constant search for pioneering solutions to the technical challenges of the times. Ever since these early days we at Fronius have been exploring new technologies for converting and controlling electrical energy. This amounts to over seven decades of experience, progress and continuous innovation.

## A GLOBAL FAMILY-RUN ENTERPRISE – WITH STRONG VALUES

/ During the company's internationalisation and development of new markets for Fronius battery charging technology, welding technology and solar electronics, our desire never changed: to be the technology and quality leader.

Today we export roughly 92 percent of our products through our 21 international Fronius subsidiaries and sales distributors/representatives in more than 60 countries. With 928 issued patents, we are the innovation leader on the world stage.

## HEALTHY BUSINESS – EXCELLENT CREDIT RATING

/ We at Fronius think in terms of sustainable growth, not quarterly figures. We are not motivated by share prices, but by exciting innovations. In contrast to listed companies, we are not governed by any compulsion for short-term profit maximisation. This enhances our strength and stability. Dun & Bradstreet (D&B) therefore assigned a best-possible risk indicator of 1\* to Fronius in 2014, which firmly underlines our responsible use of resources.



/ An interview with our founder Günter Fronius can be found at [www.fronius.com/howitbegan](http://www.fronius.com/howitbegan)



/ Klaus Fronius, Managing Director since 1980 together with his sister Brigitte Strauss. He moved to the company's Supervisory Board in 2012.



/ Elisabeth Engelbrechtsmüller-Strauss, Managing Director since 2012. Member of the Management Board for Finance and HR.

# TIME FOR A CONFIDENCE CHECK:

/ For a care-free investment you need reliable partners who will always stand by your side.

/ The inverter acts as your PV system's brain. Your entire investment's rate of return in the form of generating renewable energy from solar power depends on this inverter. Your choice of inverter should therefore never be left to chance. Ask yourself the following question: which manufacturer promises me the best long-term energy yield from my PV system?

## ? COMPANY CHECK

- / How long has the company been around for?
- / How long has it been active in the field of solar technology?
- / Is it a listed public limited company?
  
- / Is there a stable ownership structure?
- / Does the company have any alternative sources of revenue?

## ! FAMILY-RUN COMPANY

- / Fronius was founded by Günter Fronius in 1945
- / Fronius has been a solar pioneer for over twenty years
- / Fronius has remained unchanged in private hands for over 70 years
- / Yes, Fronius is a family-run company
- / Fronius is successfully active in three different industry sectors

## ? QUALITY CHECK

- / Does the company have a certified quality management system?
  
- / Are the company's products of a high quality?

## ! QUALITY PIONEER

- / Fronius leads the way in quality for the solar energy sector and has been fully certified in accordance with ISO 9001 for over 20 years.
- / Fronius literally stands for outstanding products: Plus X Awards for High Quality, Functionality and Ecology for the Fronius Galvo and Fronius Symo speak for themselves

## ? SERVICE & SUPPORT CHECK

- / Does the company possess a service hotline?
  
- / Does the company provide service support in my country?

## ! UNIQUE SUPPORT

- / Yes, Fronius technical support is available worldwide for its customers
- / Yes, Fronius offers service support in more than 70 countries

## ? FUNCTIONALITY CHECK

- / Does the inverter possess additional slots for retrofitting future features?
- / Does the inverter have any open interfaces?
- / Can the inverter be serviced on-site?

## ! TOP FUNCTIONALITY

- / Yes, Fronius inverters are fitted plug-in card slots
- / Yes, Modbus TCP, JSON, Modbus RTU
- / Yes, the inverter can also be serviced on-site without Fronius engineers present

## ? WARRANTY CHECK

- / How long does the manufacturer's warranty last?
- / What services are included within the manufacturer's warranty?
- / How is a warranty claim processed?

## ! STRONG WARRANTY

- / Fronius offers a warranty for up to 10 yrs upon registration
- / A 5-yr Fronius Warranty Plus comprises: materials, transport, service; a 10-yr Fronius Warranty comprises: materials
- / Fronius offers a paperless and formless claim handling procedure with a professional Fronius Support team as well as on-site servicing by trained Fronius Service Partners

# 1. DEVELOPED FOR LASTING PERFORMANCE

/ Opting for a photovoltaic system is the right decision. Why not make it a perfect decision? Choose Fronius.

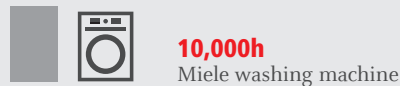
## A HOST OF INNOVATIONS WITH EVERY DEVICE

/ The technological parameters for power generation are constantly evolving. Highly functional inverters and energy solutions that can keep your PV system producing high yields for decades are therefore needed.

That is why we ask the following of every development idea:

- / Does it increase the PV system's reliability?
- / Does it increase the PV system's electricity yield?
- / Does it make the PV system more future-proof?

## TESTED FOR TARGET LIFESPAN



## FRONIUS QUALITY KNOWS NO BOUNDS

/ At Fronius "quality" is more than just a buzzword. For us it is a living, breathing reality. Fronius is a quality pioneer in the solar energy sector and has been fully certified in accordance with ISO 9001 for over 20 years. Every single Fronius product is put through stringent quality control measures and thoroughly tested before dispatch. Why not see for yourself how a Fronius quality product is made during a tour of our production plant in Sattledt? To find out how to register, please visit [www.fronius.com/tour](http://www.fronius.com/tour)

## QUALITY ASSURANCE DURING PRODUCTION

### NOMINAL OUTPUT TEST

Across the entire input voltage range

### BURN-IN TEST

Brief bursts of intensive operation with temperature changes

### TEST SERIES FOR

### OPERATIONAL RELIABILITY

High-voltage test, insulation test and functionality test of protection devices

## LIVE TEST DATA TRACKING

REACTS EVEN BEFORE TOLERANCE LIMITS ARE REACHED

100% COMPREHENSIVE TESTING

## WHILE OTHERS PROGRESS STEP-BY-STEP, WE INNOVATE IN LEAPS AND BOUNDS.



**HEINZ HACKL - MEMBER OF THE MANAGEMENT BOARD FOR R&D AND QUALITY MANAGEMENT**

*“Every day, we work hard to realise our vision of “24H Sun” - a future where all of our energy is based on renewables. That is why we are developing new solutions that inspire our customers and impress through sheer quality.”*

## ALL DEVICES ARE FULLY TESTED BEFORE LEAVING A FRONIUS PLANT



**THOMAS HERNDLER - MEMBER OF THE MANAGEMENT BOARD FOR MANUFACTURING**

*“Every Fronius inverter is tested thoroughly before dispatch. After all, a penny invested in quality assurance saves a pound for us and our customers.”*

Fronius endurance tests up close and personal:  
[www.fronius.com/endurancetests](http://www.fronius.com/endurancetests)

Quality through innovation - the video:  
[www.fronius.com/quality](http://www.fronius.com/quality)

## 2. SERVICE WITHOUT CONDITIONS

/ Fronius welcomes you to the frustration-free zone! We do not merely sell products, but instead promise complete product solutions with after-sales services included.

### FRONIUS SOS - A 24/7 SERVICE

/ Breakdowns tend not to obey standard office hours. The Fronius Solar Online Support (SOS) platform saves a PV system's installers and owners additional time and money. Ernst Prötsch, Head of Technical Support at Fronius International, states, *"For us it is important to ensure that our service partners receive the best possible service quality. Maximum availability is therefore crucial, since a quick intervention is double the benefit."*

### ALL TIMES AND ALL PLACES WITH FRONIUS SOS

/ RETRIEVAL OF DEVICE DATA

/ REQUEST SUPPORT OR REPLACEMENT SERVICE

/ RETRIEVE CURRENT SERVICE STATUS

/ ACCESS ONLINE FAQ AREA



**24/7** AVAILABILITY

### SERVICE SUPPORT YOU CAN DEPEND UPON



**SÖNKE LUCHT,  
LUCHT ELEKTROTECHNIK**

*/"Fronius SOS is a great platform. Many supposed status errors that arise from grid-side technical difficulties can be corrected quickly and easily over the telephone together with the customer without a site visit being required."*

### QUICK PROBLEM-SOLVING INSTEAD OF SMALL PRINT

/ A warranty certificate alone cannot guarantee competent and uncomplicated problem-solving. Our highly qualified Fronius Support team on the other hand will never leave you high and dry, irrespective of problem causes, expiry periods and conditions. This is true for the PV system's entire working life, even after the warranty has expired. After all, there are many different reasons why a PV system can experience technical difficulties. And there is one good reason why you should choose Fronius: we will always be there for you.

### AVERAGE WAITING PERIODS ON THE TELEPHONE

**13**  
SEC

**VIENNA EMERGENCY POLICE SERVICE**  
Call answered by operator

**40**  
SEC

**FRONIUS SERVICE HOTLINE**  
Call answered by technical adviser

**3**  
MIN

**17**  
SEC

**MOTOR INSURANCE COMPANY**  
Call answered by hotline staff

**3**  
MIN

**41**  
SEC

**DOMESTIC APPLIANCE MANUFACTURER**  
Call answered by hotline staff

### FRONIUS CAN BE RELIED UPON



**WALTER NAUSCHNEGG,  
ENERGIETECHNIK  
NAUSCHNEGG GMBH**



*/"I have been installing Fronius devices for many years. When it comes down to it, the guys at Fronius Technical Support are always there. Quick, uncomplicated and non-bureaucratic. That's exactly what I want."*

Fronius Solar Online Support:  
[www.fronius.com/sos](http://www.fronius.com/sos)

Unique on the market - the Fronius Service Partner programme: [www.fronius.com/ServicePartner\\_EN](http://www.fronius.com/ServicePartner_EN)

# 3. WE THINK LONG-TERM

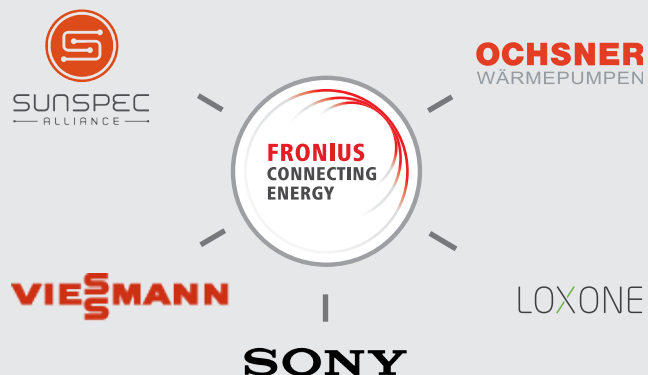
/ With Fronius your system's yield is secured over the long term. Whatever the future may bring, a Fronius inverter leaves you ready for anything.

## WANTED: COMMUNICATIVE TEAM-PLAYER

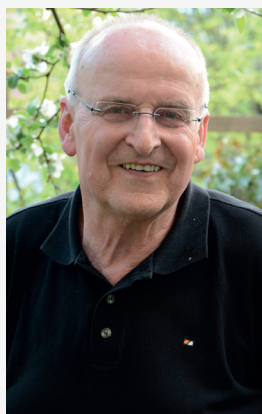
/ "It's not compatible. That only works with products from company XYZ".

So you're not a fan of limiting competition? Nor are we! That's why we will do everything in our power to make sure you do not have to hear such statements from us. Why? Because we believe that the energy revolution to generate all of our energy from renewable sources can be achieved faster through cooperation among the technological innovation leaders.

## WORKING TOGETHER FOR MORE



## FIRM CONTROL OVER ENERGY CONSUMPTION WITH FRONIUS



THE BRANDSTÖTTER FAMILY,  
UPPER AUSTRIA

/ "In order to optimise our own personal use of solar power, we opted for a LOXONE home automation system. Setting up a data link between Fronius and LOXONE could not have been easier."

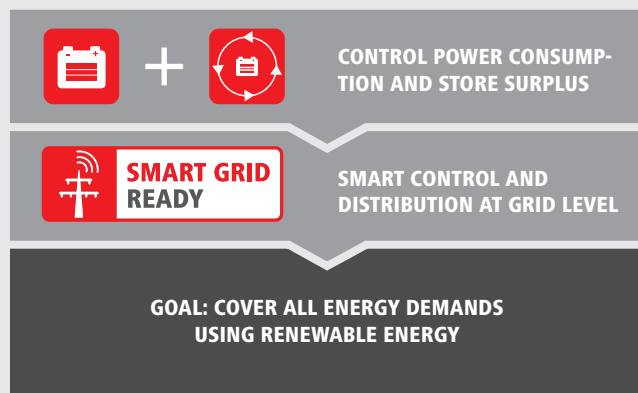
How to direct the power you produce:  
[www.fronius.com/ConnectingEnergy](http://www.fronius.com/ConnectingEnergy)

## EQUIPPED FOR THE DEMANDS OF TOMORROW

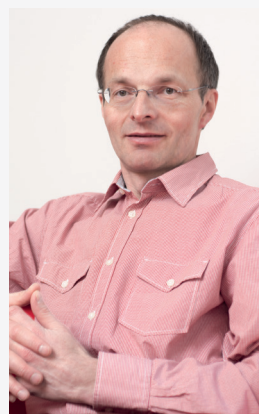
/ Inverters should also be able to communicate with devices and power grids of the future as well as have the capacity to be upgraded at any time. Only this will allow a PV system to also deliver a maximum electricity yield over the long term. Fronius inverters:

- / use an upgradeable software platform
- / are equipped with additional plug-in card slots in order to retrofit future features as needed
- / are ready for the intelligent power grids of tomorrow

## ALREADY PREPARED FOR 24H SUN WITH FRONIUS



## HOW MR STADLMAIER BROUGHT HIS PV SYSTEM FROM 2009 INTO THE INTERNET AGE USING WLAN AND FRONIUS



HUBERT STADLMAIER,  
SYSTEM OWNER

/ "I installed my first PV system in 2009. Five years later I plugged a Datamanager 2.0 into my Fronius IG inverter, allowing me to monitor my PV system's performance over the internet ever since thanks to the wireless functionality."

Ready for the future of energy:  
[www.fronius.com/24hsun](http://www.fronius.com/24hsun)

## 4. PARTNERSHIP WITHOUT EXPIRY DATE

/ Settlement takes place at the end. That is why service and support quality are crucial for a PV system's total yield.

### TOGETHER INSTEAD OF ALONE

/ Even PV systems with no technical defects whatsoever may require modifications in the course of technological progress. For example:

/ Directives and standards pertaining to energy feeding may change.

/ Technical requirements of the power grid may change

/ The grid infrastructure may change

With Fronius Product Support by your side, you can respond to such developments with ease.

### SOFTWARE UPDATE SUPPORT FOR MANY YEARS

2015	
2001	FRONIUS IG
2007	FRONIUS IG PLUS
2009	FRONIUS IG TL
2014	FRONIUS SNAPINVERTER

COMPREHENSIVE UPDATE SUPPORT PERFORMED FROM MARKET LAUNCH UNTIL NOW

### 50.2HZ – WHEN PUSH COMES TO SHOVE, IT'S ACTIONS THAT COUNT



**ROBERT PÖTSCHAN, IBE  
INGENIEURBÜRO FÜR ERNEUERBARE  
ENERGIEN GMBH**

/ "When the German Association of Grid Operators adopted the 50.2Hz regulation, I converted a number of PV systems for power supply companies. Of all the manufacturers, Fronius had the fastest and most cost-effective solution at hand."

Always bang up to date:  
[www.fronius.com/SolarUpdate](http://www.fronius.com/SolarUpdate)

### FRONIUS MAKES IT LAST THE LONGEST

/ Profitable or debacle? It is a PV system's second decade that determines its cost effectiveness. Fronius inverters are endurance runners and can be serviced quickly and easily on-site. This is easy on the finances as well as on environmental resources.

/ Fastest on-site service across the sector

/ All spare parts available at least 10 years after discontinuation of a model's production

/ Sustainable service: PCB replacement before device replacement

### DEVELOPED FOR THE FASTEST ON-SITE SERVICE

COST-EFFECTIVE AND ENVIRONMENTALLY-FRIENDLY PCB REPLACEMENT: ONLY POSSIBLE WITH FRONIUS

STRING INVERTER REPLACEMENT



FRONIUS  
SNAPINVERTER

MAX. 2 MIN

COMPETITOR PRODUCTS

10 MIN +

### WARRANTIES ARE PROMISES FOR THE FUTURE: FRONIUS SOLAR ENERGY HAS BEEN THE ONE TO TRUST SINCE 1995



**RUDOLF MITTER,  
HILKERING, AUSTRIA**

/ "Our PV system has been running with a Fronius Sunrise 2000 inverter since 1996. The Sunrise stopped working once after it was hit by lightning, but even that was quickly repaired."

An age of discovery in the solar electronics industry:  
[www.fronius.com/solar/history](http://www.fronius.com/solar/history)

# A FRONIUS WARRANTY CAN BE RELIED UPON

/ A Fronius warranty is backed by a stable family-run business, as well as the outstanding service quality offered by the Fronius Support team and Fronius Service Partners.

/ Fronius inverters come with the option of a 5-year Fronius Warranty Plus\* (materials, servicing and transport) or a 10-year Fronius Warranty\* on materials. All we ask in return for this free warranty cover of up to 10 years\*\* is one thing: to remain in contact with you. Simply register on our Fronius Solar.web internet portal at [www.solarweb.com](http://www.solarweb.com). After successfully registering on the portal you will have access to the following:

## WARRANTY COVER FOR UP TO 10 YEARS\*\*

/ Register your device on your Fronius Solar.web account and activate up to 10\* years' warranty cover.

## FREE OVERVIEW OF THE LATEST PERFORMANCE DATA FROM YOUR PHOTOVOLTAIC SYSTEM

/ Fronius Solar.web Classic enables you to easily register your PV system on your Solar.web account via Datalogger ID.

## KEEP UP TO DATE WITH YOUR INVERTER

/ Information on recent software updates, functionality updates, accessories and services as well as news on compatible electricity storage technologies, devices and domestic control systems



\* In order to activate the Fronius Warranty Plus or the Fronius Warranty, the inverter must have been registered at Fronius Solar.web. String inverters of up to 27.0 kW can be registered. The optional warranty models may vary from country to country. Please visit [www.fronius.com/solar/warranty](http://www.fronius.com/solar/warranty) for full details of the different warranty models available as well as the warranty terms and conditions in your country. \*\* 5 + 5 years warranty valid until December 31, 2015. For full terms & conditions see [www.fronius.com/solar/warranty](http://www.fronius.com/solar/warranty)

/ Perfect Welding / Solar Energy / Perfect Charging

## WE HAVE THREE DIVISIONS AND ONE PASSION: SHIFTING THE LIMITS OF POSSIBILITY.

/ Whether welding technology, photovoltaics or battery charging technology – our goal is clearly defined: to be the innovation leader. With around 3,300 employees worldwide, we shift the limits of what's possible - our record of over 900 granted patents is testimony to this. While others progress step by step, we innovate in leaps and bounds. Just as we've always done. The responsible use of our resources forms the basis of our corporate policy.

Further information about all Fronius products and our global sales partners and representatives can be found at [www.fronius.com](http://www.fronius.com)

v05 May 2015 EN

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