

FRONIUS IG CENTRAL INVERTERS

A solar energy system is only as good as its inverter. It manages the system and is thus a central element in delivering your solar yields. The Fronius IG central inverters are modularly constructed. This makes the devices especially easy to maintain and reduces yield losses to a minimum.

Phoenix Solar offers you the greatest possible security for your investment: In addition to the quality control carried out by the manufacturer, a Phoenix Solar technical team also performs stress tests on all products. Random samples of Fronius IG central inverters are tested for reliability and performance – providing the best possible security for your power yields!



The advantages at a glance:

- Tested in a RAL certified process, independent of the manufacturer
- Modular construction provides previously unachieved levels of yield security and easy maintenance
- Clever MPP tracking increases yields under partial loading
- Galvanic isolation ideal for thin-film modules
- Quick and convenient remote system monitoring
- Automatic warning feature and notification via e-mail or text message
- 5 year product guarantee*
- Service and maintenance contracts for the duration of 20 years
- 24-hour replacement service and customer hotline

* the guarantee conditions of the manufacturer apply

Experience pays off

Phoenix Solar or your local Phoenix Solar partner chooses the optimal inverter to suit your solar energy system. All our sales partners are highly competent, with years of experience in solar technology, and are selected by us using the strictest quality criteria.

PERMANENT SECURITY – EVERY SOLAR CENT COUNTS

The investment volume for larger solar power plants means that yields need to be as secure as possible. Any faults occurring should be solved by an automatic operation monitoring system, even for very remote systems. Today's modern technology makes remote monitoring child's play. If necessary, even from the other side of the planet.

Fronius IG Datalogger easy/pro: Perfect monitoring – even at a distance

Convenient data acquisition, visualisation, and analysis of entire systems: The Phoenix Solar technical team recommends the Fronius Datalogger easy/pro for this. This is available as a plug-in card for the inverter and also as a stand-alone device in an external case. The Fronius IG Datalogger easy/pro can acquire and store the performance data of up to 100 inverters. For remote sites (e.g. barns or warehouses) that have no Internet connection, the data is reliably transferred using a GSM modem.



Fronius IG String Control: Continuous monitoring of every string

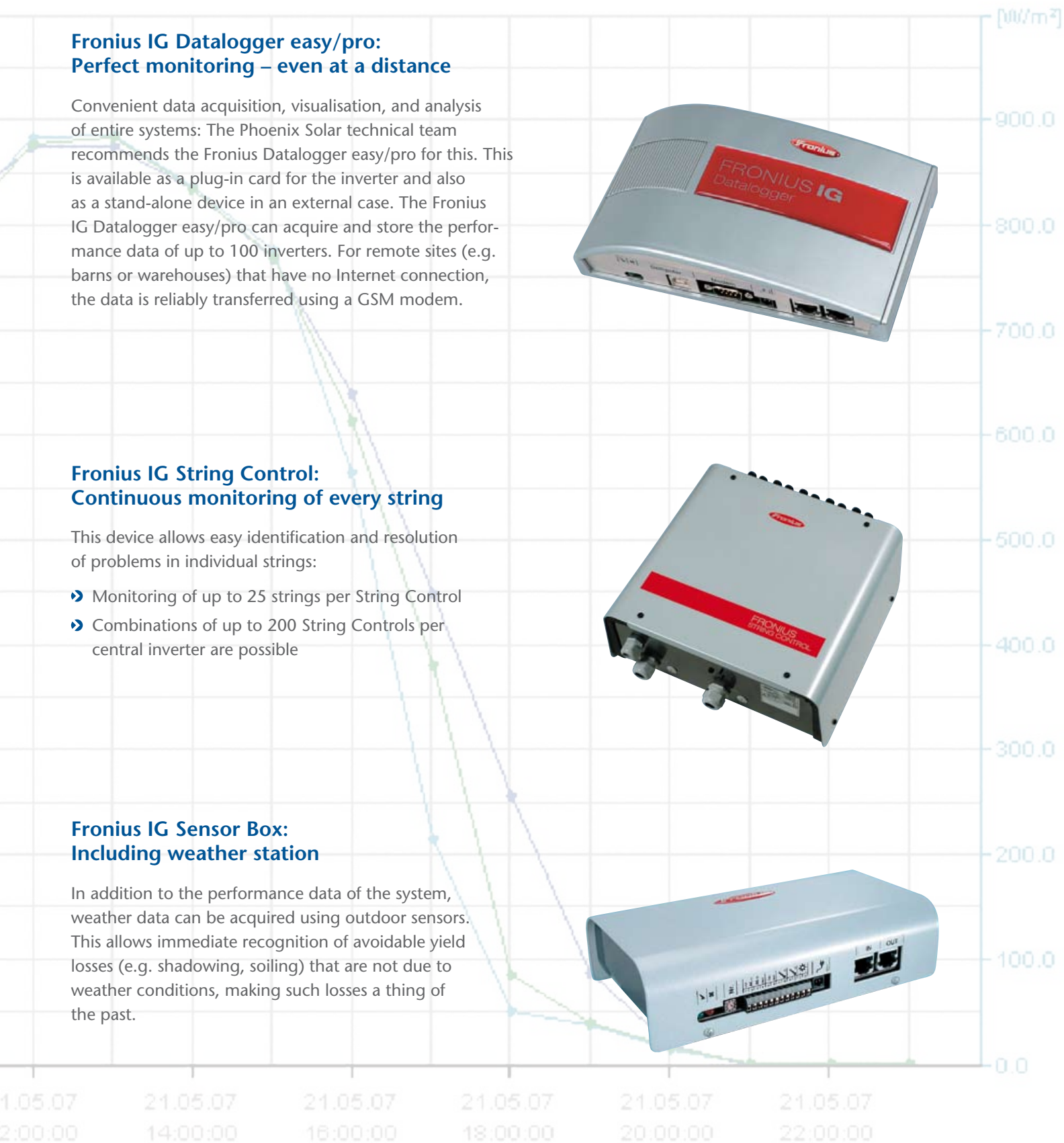
This device allows easy identification and resolution of problems in individual strings:

- Monitoring of up to 25 strings per String Control
- Combinations of up to 200 String Controls per central inverter are possible



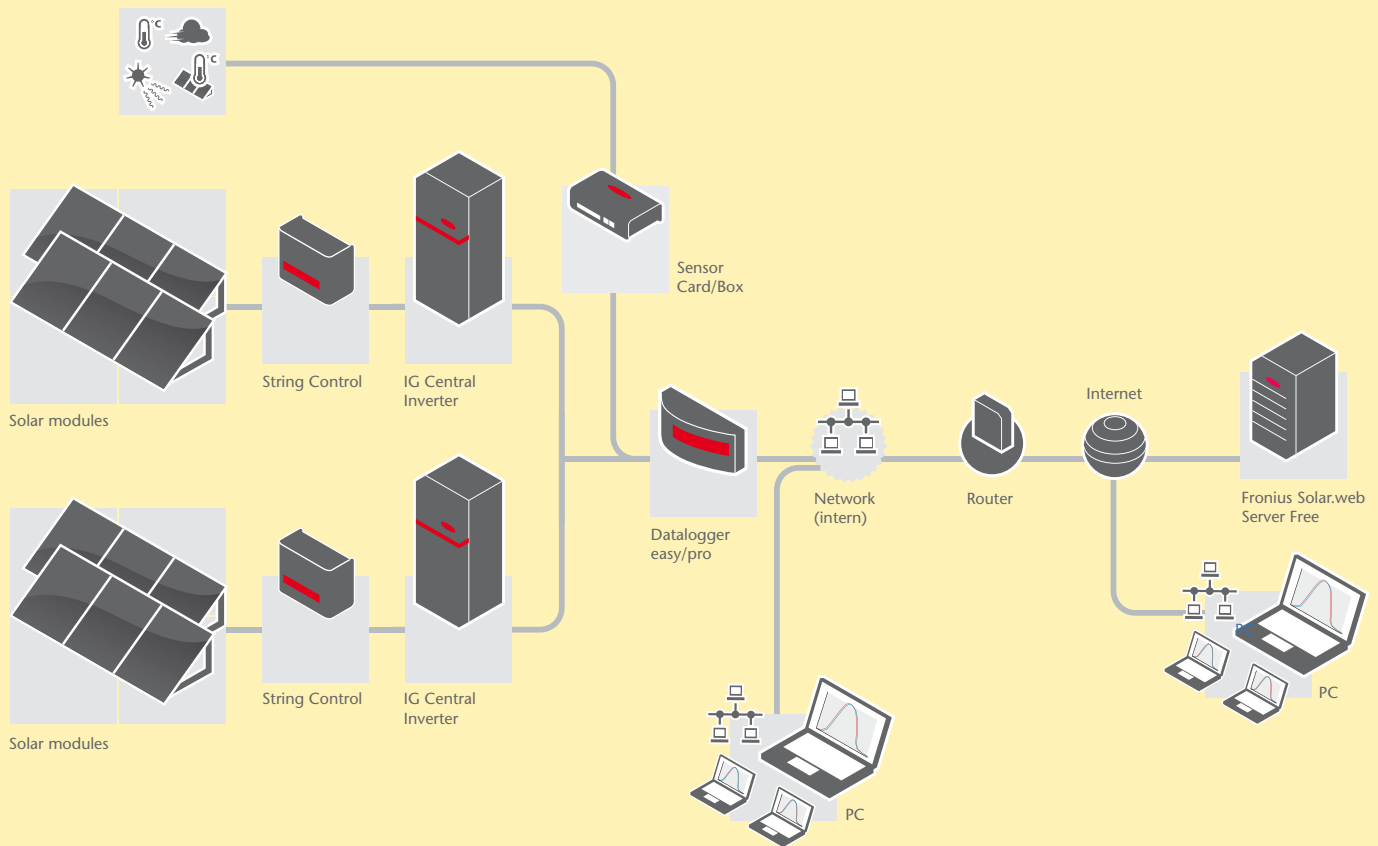
Fronius IG Sensor Box: Including weather station

In addition to the performance data of the system, weather data can be acquired using outdoor sensors. This allows immediate recognition of avoidable yield losses (e.g. shadowing, soiling) that are not due to weather conditions, making such losses a thing of the past.



Perfect connection: The direct link to your system

The diagram shows how simple the monitoring and data acquisition of your system is. With quality components perfectly matched to each other you always have an overview of the current performance.



The advantages of the Fronius IG Datalogger easy/pro:

- Early detection of operational faults, also for very remote systems
- Data storage for analysis, e.g. using Microsoft Excel
- Diagnosis and system monitoring using any PC: Windows, Linux & Mac OS
- Monitoring of up to 100 inverters
- Direct data transfer to a PC via a USB interface if required
- Connection to a GSM modem is possible (if no telephone connection is available)
- Available as a plug-in card or external device
- Automatic notification via text message or e-mail if a fault occurs

The advantages of the Sensor Box:

- Comprehensive performance analysis of the solar power plant
- Data acquisition of irradiation, module temperature, wind speed, and outside temperature are possible
- Simple integration into existing systems
- Available as a plug-in card for the inverter or as an external device

Fronius IG central inverters

At Fronius you will find inverters for every size of system. The modular construction of the FRONIUS IG system allows you to individually assemble your system – or upgrade it later.

| Model description | IG 300 | IG 390* | IG 400 | IG 500 |
|-------------------------------|---------------------------------|---------|--------|--------|
| Material number | 100514 | 100491 | 100465 | 100486 |
| Max. DC power (W) | 25.80 | 34.40 | 34.40 | 43.00 |
| Min. MPP voltage (V) | 210 | 210 | 210 | 210 |
| Max. MPP voltage (V) | 420 | 420 | 420 | 420 |
| Max. DC voltage (V) | 530 | 530 | 530 | 530 |
| Max. DC current (A) | 123 | 164 | 164 | 205 |
| Rated AC power (Wp) | 24 | 29.90 | 32 | 40 |
| Max. AC power (Wp) | 24 | 32 | 32 | 40 |
| Max. efficiency (%) | 94.30 | 94.30 | 94.30 | 94.30 |
| European efficiency (%) | 93.30 | 93.40 | 93.40 | 93.50 |
| Transformer | yes | yes | yes | yes |
| Weight (kg) | 225 | 245 | 245 | 265 |
| Width (mm) | 600 | 600 | 600 | 600 |
| Height (mm) | 2445 | 2445 | 2445 | 2445 |
| Depth (mm) | 1113 | 1113 | 1113 | 1113 |
| IP protection degree | 20/43 | 20/43 | 20/43 | 20/43 |
| Temperature range (°C) | -20 to +50 °C for all inverters | | | |
| Integrated DC circuit breaker | yes | yes | yes | yes |

* IG 390 only certified for Germany.
Source: Fronius, subject to errors and technical modifications

The manufacturer Fronius

The name Fronius has stood for quality products for conversion of electrical energy since 1945. These years of experience pay off. If a Fronius inverter should ever

fail, then you have the security of a 24-hour replacement service. In addition to this, Fronius also accepts old devices and properly recycles them.