



Remote monitoring for complex systems

The Pro Box is our top product. It is robust, failure proof and smart. Control devices on site, include multiple inverters and a variety of additional sensors without limitations on the system sizes. The EcoPhi Pro Box is the perfect combination of quality, performance, flexibility and price. By selecting suitable sensors, actors and individual logics almost all use cases can be covered.



Basics

- ✓ Monitoring at the highest level with detailed system and sensor data
- ✓ Smart on-site control
- ✓ Remote control of the system
- ✓ High demands on data resolution
- ✓ Complex systems with many components
- ✓ Multiple distributed systems
- ✓ Hybrid systems



Features



Easy-to-install box

Despite the wide range of application and design options, our Pro Box is usually easy to install. The sensors are supplied with reverse polarity protection as a plug & play solution.



Different inverters in one system

Multiple inverters independent of the manufacturer can be connected at the same time. You can also include other components such as gensets, battery management systems or smart meters.



Wide range of sensors

You can connect several sensors of different types at the same time. You can choose from a wide range of EcoPhi sensors for solar and water or include your own sensors.



Local data storage

The data is also stored on an SD card locally and can be downloaded via USB stick if required. In this way, technicians on-site have access to the system data even in the event of network failures.



Smart data transfer

The box works with GSM, LAN or Wifi.

Network failures are detected automatically by the device. During weak or lost connectivity, data is collected even over long periods of time. As soon as the system has signal again, the data is sent and no data gaps will occur.



Special functions and controls



Remote control

With our Pro Box, you can remotely control your systems with your personal access to the EcoPhi Platform.



On-site control

Besides remote control from the platform, our Pro Box also automatic control of the systems based on numerous logic circuits (PLC).



Zero feed-in regulation

With zero feed-in regulation, you can prevent your system from exporting energy back to the grid. With its fast processing time and handling of complex functions, the Pro Box is perfectly made for this.



Fuel Saving

With the Fuel Saving function, you can reduce the usage of the genset and thus save fuel. With its fast processing time and handling of complex functions, the Pro Box is perfectly made for this.



Individual functions and logics

Larger systems can be very complex and specific project and system related functions and controls can be needed. With the Pro Box, we can cover most of the requirements easily.

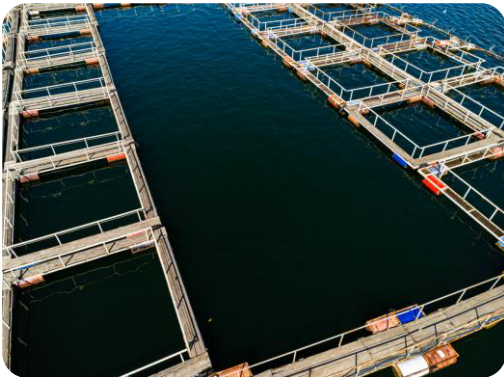


Use cases



Solar systems

The pro Box is used for solar system above 500kW or when several components and sensors need to be integrated. It can be used for both on- and off-grid (hybrid) systems with no limit in size.



Large scale water systems

The Pro Box can read several pump inverters at the same time and receive additional information via sensors and meters. With this, large water supply systems can be monitored efficiently.



Complex applications

With its ability to read several devices at the same time and connect to different sensors, a wide range of complex applications can be covered – the Box is often used, many parameters need to be monitored centrally or when specific control functions are required.



The most important information at a glance

Function	
Interfaces and connections	
RS232 interface	1
RS485 interface	2
Ethernet interface	1
N° of inverter, controller, genset connections	128
N° of different inverter, controller, genset types	3
Analog sensors	4
Digital sensors	8 (in total for digital and pulse)
Pulse sensors	8 (in total for digital and pulse)
Sensor extension box connection	✓
Bluetooth connection	✓
Data transfer	
Wifi	✓
GSM	✓ (2-4G)
LAN	✓
Data transfer after connection losses	✓
Control and logic	
On-site logic circuits	✓
Remote control of inverters	✓
N° of relays	6
Remote control of relays	✓
Edge calculations	✓
Data storage	
SD card	✓
Local data storage	✓
Power supply	
External power supply	12 - 30 VDC, 100-250 VAC
Backup power	2 Ah
Box setup	
Setup software	✓
Change EcoPhi Box settings from platform	✓
Change EcoPhi Box setting via SMS	✓
More	
On-site alarms	✓
SMS alarms	✓
On-site display	✓
Camera connection	✓
Dimensions	250 x 350 x 150 mm



EcoPhi

Renewables Engineering

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