SMARTFOX®

Intelligent Use
of Solar Energy

www.smartfox.at

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Innovation & Technology

Thanks to our many years of experience in the renewable energy sector, we are well aware of the enormous potential for energy efficiency in systems. Because of this, we combine state-of-the-art technology with our expertise and inventiveness to develop the best possible solutions for our customers.

Our philosophy is centered around customer satisfaction, and using resources carefully. We want to do our part for future generations and future technologies by using systems that ensure the best possible sustainability and energy efficiency.

Hermann Buchsteiner
Managing Director

Matthias Fischbacher
Managing Director

Intelligent Energy Management with

SMARTFOX Pro

Increase your independence and generate your own power! We specialize in utilizing excess energy from photovoltaic and other generation systems as effectively as possible. The intelligent, individually configurable SMARTFOX Pro Energy Management System significantly optimizes the consumption of your system.

Thanks to **intelligent sector coupling**, SMARTFOX Pro can be used to link and control **individual components** (such as e-charging stations, heat and pool pumps, and boilers (heating elements) for hot water preparation, battery storage systems, climate control systems, infrared heating, etc.) from **different manufacturers** from a **single source** and **fully automatically**. **Your benefits:** You can use the power you produce directly, significantly **reducing your operating costs** and the **amortization time** of your equipment.

Our product is complemented perfectly by **free monitoring and a mobile app**. This helps you keep an eye on everything, even on the go, and easily complete any needed configurations.

SMARTFOX Facilitates Intelligent Sector Coupling

Use your renewable energy efficiently & **control your entire system** with the **innovative SMARTFOX Pro system.**

SF Pro Energy Manager

Free Monitoring

Maintain an overview of your energy usage and savings with the comprehensive SMARTFOX Monitoring System.

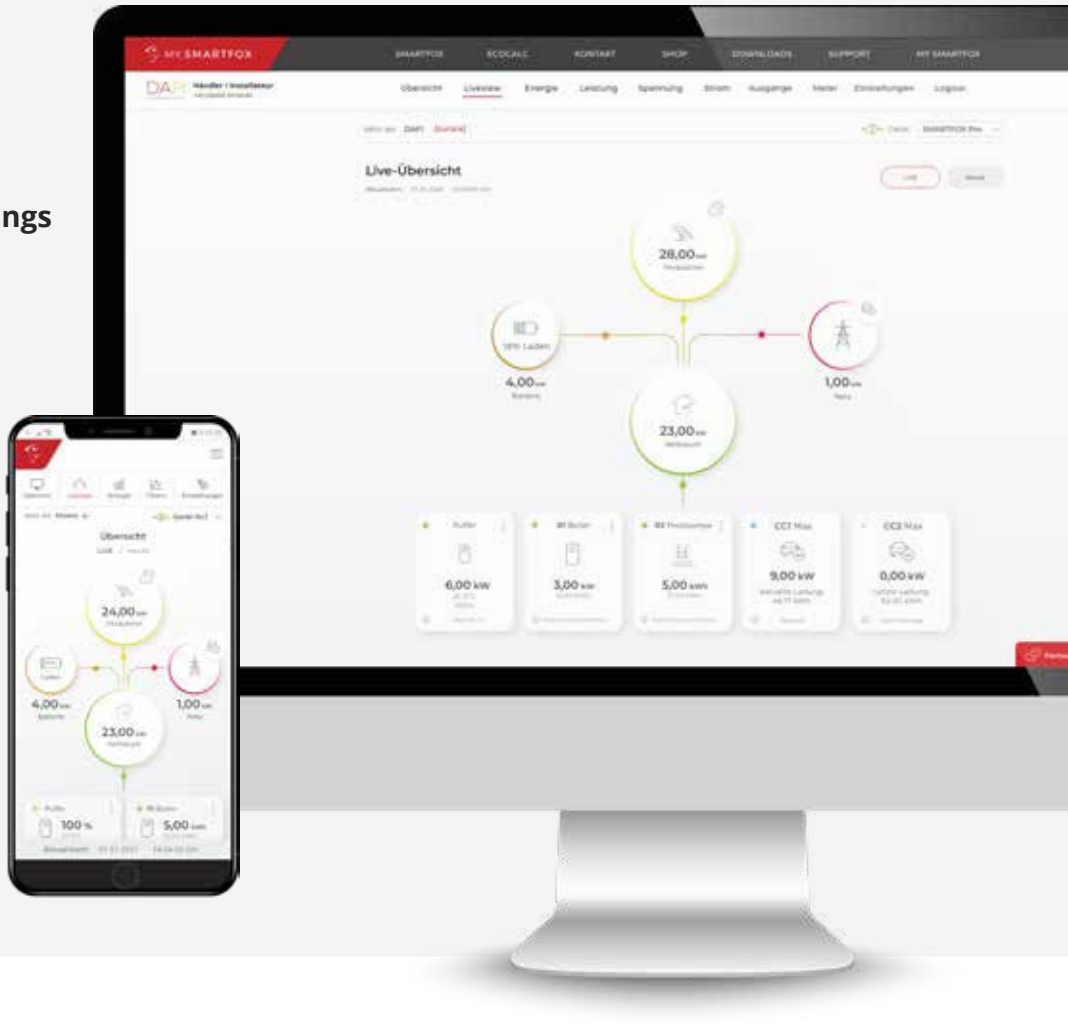
The live overview represents your building in real time. From production in your system

and grid production / usage, to the consumption levels of individual devices, such as a buffer, boiler, heat pump, or e-charging station. The SMARTFOX Pro Energy Manager activates these devices fully automatically. Devices can also be operated manually as needed.

- **Live monitoring**
- **Remote access**
- **Energy overview**
- **Keep an eye on savings**
- **Available as an app**
- **Free!**

JETZT BEI Google Play

Laden im App Store



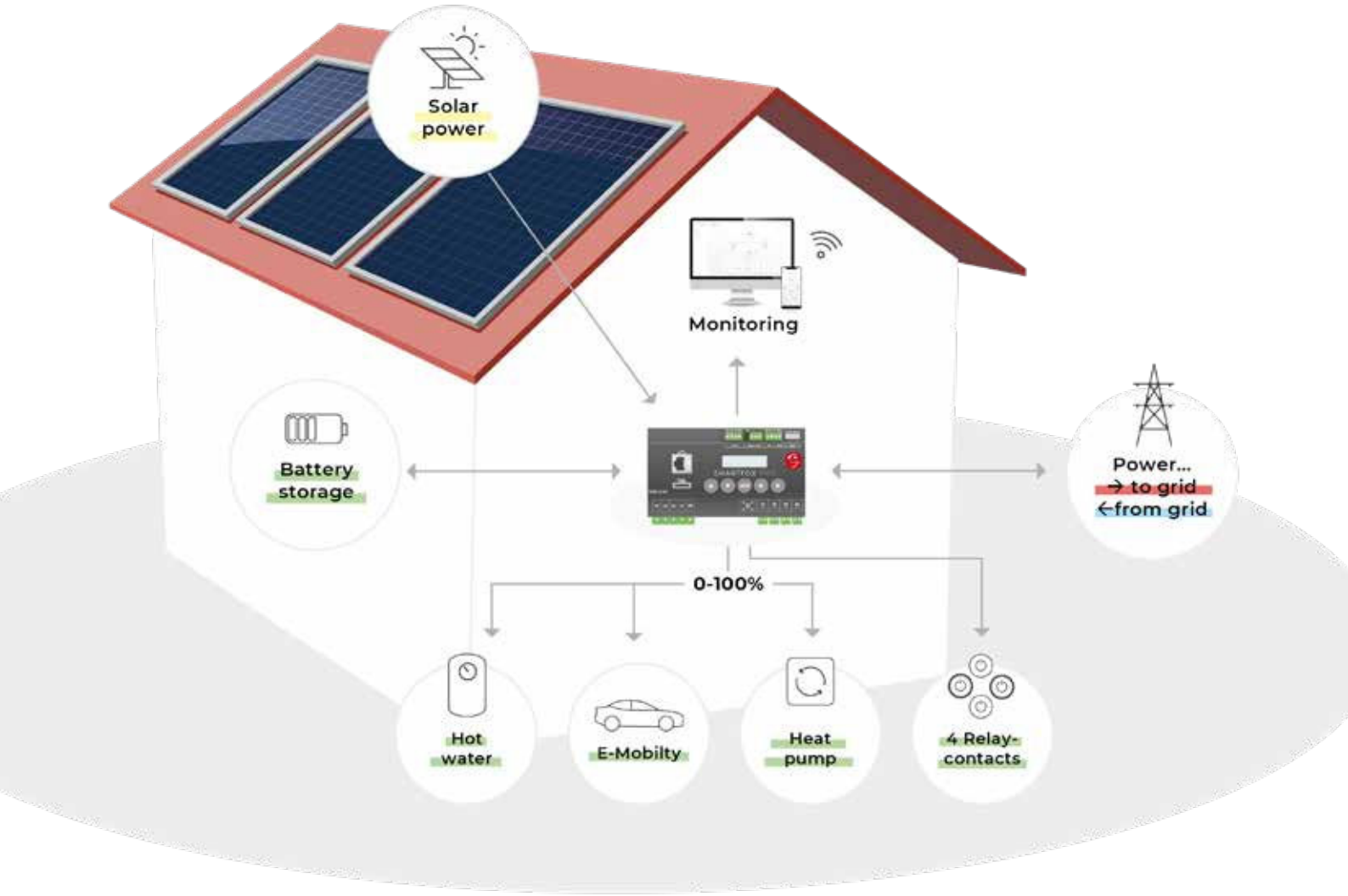
Evaluate & Analyze

Our analytic system allows you to optimize production and consumption on an ongoing basis, and even identify any “power guzzlers”. All analyses can be adjusted individually using filters, and exported via a practical process.

Functional Overview

In a photovoltaic unit without an energy management system, only around 32% of the energy generated is used directly. The intelligent SMARTFOX Energy Manager increases the utilization rate to up to 98% (see the graphic at the right).

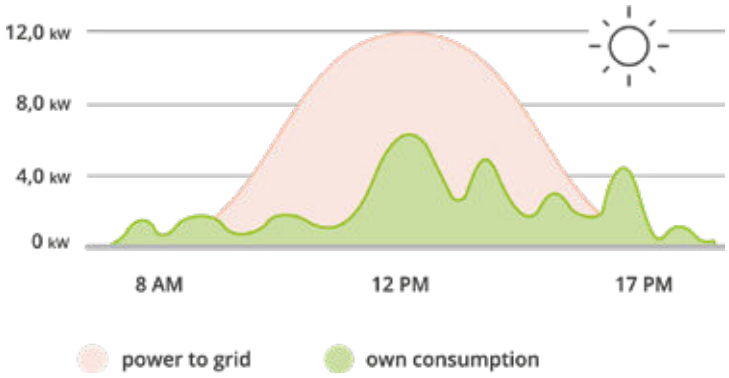
SMARTFOX serves as the central interface between the generation system and the activated devices, and regulates them to an adjustable target value. This ensures that as little energy as possible is fed back into the grid or drawn. Data is represented in high resolution on the web interface, for excellent ease of analysis.



All current compatibility lists can be found on our website in the download area.

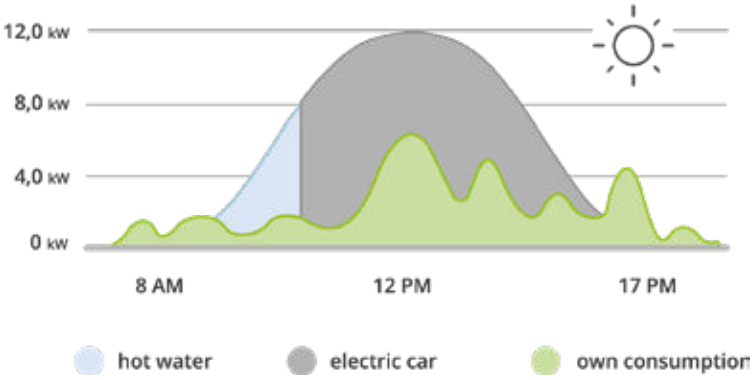
Without SMARTFOX...

approx. **32%** private consumption



With SMARTFOX...

Up to **98%** private consumption



Your SMARTFOX Advantages

- Flexibel use
- Simple installation & commissioning
- Suitable for single-family homes up to commercial properties
- Easy to retrofit - suitable for new or existing systems
- MADE IN AUSTRIA

Market leader in ÖSTERREICH • Market leader in AUSTRIA •

NEW

NEW! Direct Battery Activation

Now, the SMARTFOX Pro Energy Manager makes it possible to activate and read out batteries from different manufacturers like Sungrow, Solax and Victron directly (charging and discharging specification).

MULTIPLE ADVANTAGES:

- Full control from a single source
- No additional meter required from the inverter manufacturer. Reduce costs and save space
- COMING SOON – Flexible priority selection
- Combine dynamic power prices

POWER TO HEAT & COOL

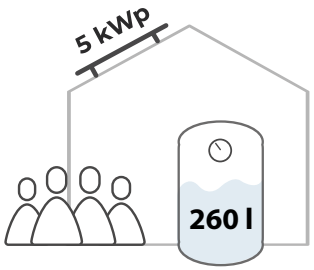
From heating to cooling – SMARTFOX Pro regulates it all.

Hot Water

Hot water with solar power produced in house

The conversion of power into heat plays a key role in the SMARTFOX concept. The intelligent SMARTFOX Pro Energy Manager works with heating elements or consumption controllers to handle your hot water production. **The system can be activated to any level (0-100%) to utilize exactly the amount of energy available, so that it is not fed back into the power grid in an inefficient manner.** Excess energy is stored in the boiler or buffer on an intermediate basis.

Depending on PV production, the Energy Manager automatically selects the optimal activation point for your devices (devices are operated at times when energy prices are lower).



Ex.: If the SMARTFOX System is used only for hot water preparation in a four-person household that requires approx. 260l of hot water per day, up to **80 % of the required energy** can be **produced in-house.**

Hot water, even in bad weather?

SMARTFOX handles your hot water preparation even when the weather is bad.
The following functions make it possible:

Integrated weekly timer

Individually configurable activation times (such as during the night or based on heating rates)!

Temperature sensor (optional)

The system maintains the set minimum temperature fully automatically.

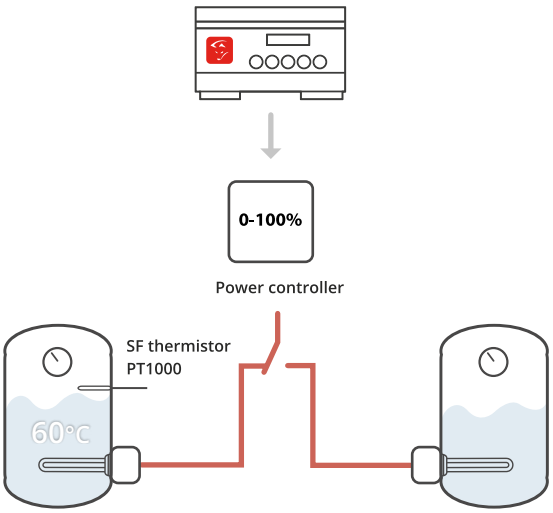
Intelligent hygiene function

Automatic heating to min. 60°C to prevent legionella.

Integrated boiler/buffer changeover

Excess energy is transferred to the boiler until the defined target temperature (in the image, for instance, 60°C) is reached.

Then the system automatically switches to another heating element, for instance to work as a heating support in the buffer.



Thanks to the various SMARTFOX ports **(4 freely configurable relays, RS485 port, analog output and LAN interface)**, hot water preparation can be **individually adapted to your needs.** This ensures added flexibility to implement complex systems (additional heating elements, circulation pumps, etc.).

Thank you very much to our partners!

Fronius, KOSTAL, solaredge, ABB, SMA
KACO, LG, VARTA, HUAWEI, HEIDELBERG
SOLARWATT power to the people, RCT power, BYD, KEBA, E·G·O
ID, bösch heizung.klima.lüftung, ASKOHEAT+, MENNEKES, wallbe
PANTA IO, EATON, Alpha-ESS, DELTA
M-TEC, PIC, ALFEN, LOXONE, HONDA
SOLTOP, victron energy, SUNGROW, Dimplex, SOLAX POWER
PHOENIX CONTACT, FIMER

Heat pumps

Coupling a heat pump (hot water preparation, heating) and PV system is an optimal way to use the energy you generate efficiently.

Besides electric vehicles, heat pumps are one of the biggest energy consumers in a building.

▪ Activation via SG-Ready

The SG-Ready interface provides a simple way to connect to the energy management system. A list of all compatible heat pumps is provided here: https://www.waermepumpe.de/normen-technik/sg-ready/sg-ready-datenbank/

If there is sufficient excess, the SMARTFOX system automatically activates the contact. The heat pump increases the target value, meaning it is operated at the optimal time. This saves running time and significantly reduces your costs.

If your heat pump does **not have the SG Ready label, contact your heat pump technician** for information on similar interfaces and control options. Most modern heat pumps have control options, which may be called a PV input or excess contact, for instance.

▪ Expanded activation options

Cooperation with our partner companies / heat pump manufacturers (all current compatibility lists are provided in the download area of our website) offers you additional advantages:

Dynamic activation Inverter-controlled heat pumps

Live display, status notifications, El. power intake, thermal power output...

Temperature chart (outdoor temperature, boiler-buffer temperature...)

Air conditioning systems

Air conditioning systems are operated when the photovoltaic system is producing the most power.

This means the excess energy can be converted directly into **cooling energy free of charge**. The connection can be completed, for instance, via a temperature thermostat with ECO input.

- **Operate with excess PV power**
- **Save energy**
- **Lower costs**
- **and much more**

Pool Pumps

Pool pumps require a run time of around 6h daily to clean the water in the pool.

With SMARTFOX Pro, the pool pump can be operated with excess energy. If the run time is not reached during this operation, the pool pump is operated via a weekly timer to ensure the total run time.

- **Reliably circulate pool water**
- **A defined daily run time is complied with**
- **Operate using excess power during sunny times**
- **Lag time via adjustable timer**
- **Save energy & lower costs**
- **and much more**

SMARTFOX accessories

and other compatible consumption regulators

The SMARTFOX product range is being expanded continuously. We provide everything you need, from energy managers to heating elements from a single source.

Heating elements

6/4 inch threaded heating element incl. thermostat switch (30°C to 85°C) & safety thermostat (110°C).

Performance classes 3kW / 4,5kW / 6kW / 9kW

Accessories

- **SF Thermistor PT1000**
  for temperature display of boiler, buffer, etc.

- **SF Relay 3-Switch**
  Switch between two heating elements (boiler-buffer changeover p. 9)

- **SF Energy Meter**
  To visualize the inverter, producers & consumers

Other compatible heating elements & consumption regulators

- **SF Ego Smart Heater**

- **Askoma AskoHeat+**

- **Fronius Ohmpilot**

NEW

#COMING SOON

SMARTFOX Pro Heater 6k

Inexpensive optimization of energy consumption without an additional power controller

- 15 levels up to 6kW (3 phase)
- Ideal addition to continuously adjustable devices (such as batteries, e-charging stations, etc.)
- Activation via RS485
- Integrated temperature sensor
- Emergency ON switch
- Thermostat up to 80°C & frost protection function

Up to 5 heating elements (per SMARTFOX Pro EMS) possible

Intelligent Use of Solar Energy

SMARTFOX

SMARTFOX
Pro Charger

Charge your electric vehicle reliably and safely. The SMARTFOX Pro Charger is the right solution for private households and small and mid-sized businesses in semi-public areas.

Learn more at www.smartfox.at/pro-charger

ELIGIBLE FOR FUNDING

SMARTFOX on Social Media

COMING SOON

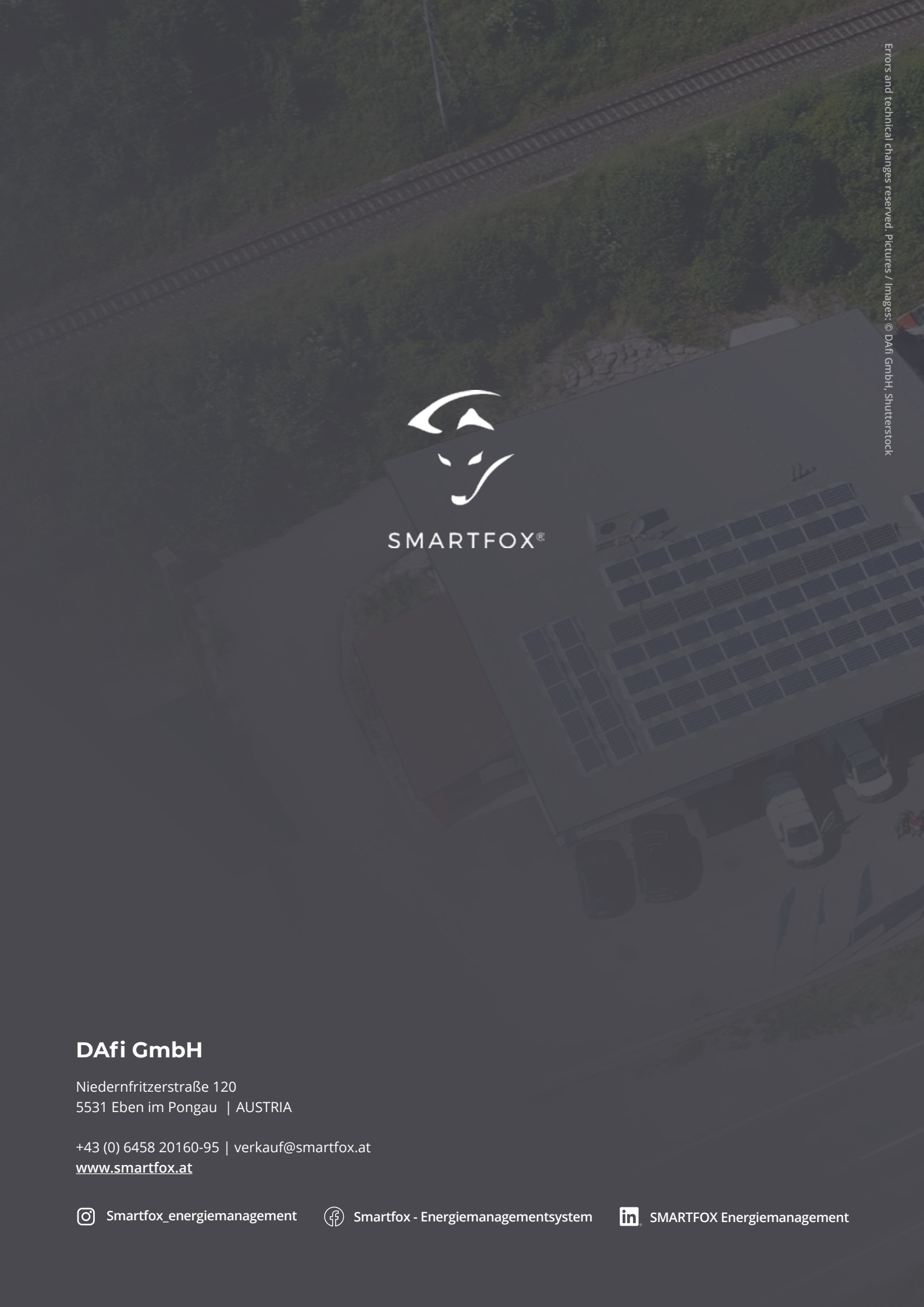
SMARTFOX
RS485 / Ethernet Converter

With the new SMARTFOX RS485 / Ethernet Converter, you can integrate your SMARTFOX Pro Charger into an existing system via the network.

Other advantages:

- **The RS485 port** on the SMARTFOX Pro Energy Manager remains free and can be used for other purposes (such as activating the EGO Smart Heater)
- **Plug & Play** installation
- **Quick communication connection** between the SMARTFOX Pro Energy Manager & Pro Charger

#ACCESSORIES



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