

Which EFOY is the right one for me?

Use our model check to determine the model that suits your needs. my-efoy.com/model-check

Advantages of the EFOY Fuel Cells



Compact and lightweight



Fully automatic and maintenance-free



Environmentally friendly and quiet


EFOY Fuel Cells in the leisure sector

The EFOY 80 and 150 are practical power generators in motor homes, boats and cabins and offer complete independence from the power grid. Once installed, the EFOY Fuel Cell completely automatically recharges 12 and 24 V on-board batteries. You can enjoy your holiday undisturbed thanks to the environmentally friendly and quiet functionality. The EFOY Fuel Cells charge all common types of batteries. You get the most efficient solution with the EFOY Hybrid Power, which is a perfectly coordinated powerhouse, consisting of an EFOY Fuel Cell and EFOY Lithium Battery.

Your freedom. Your power.

The perfect power supply for any need.


Vehicle type




Energy demand/travel behaviour

35 – 60 Ah/day
Short trips

Recommendation




Vehicle type




Energy demand/travel behaviour

55 – 70 Ah/day
primarily short trips,
up to 4 days

Recommendation




Vehicle type



Energy demand/travel behaviour

70 – 120 Ah/day
Enjoying a comfortable
holiday

Recommendation




Control of the EFOY

You can easily control your EFOY from your smartphone/tablet via the EFOY app. Just plug the EFOY Bluetooth adapter into the fuel cell. The app will give you an overview of all of the information regarding your fuel cell and the battery, such as the fill level of the fuel cartridge or the daily consumption.



Apple
App Store



Google
Play Store

You can find technical data on our website at my-efoy.com

EFOY fuel cartridges

EFOY direct methanol fuel cells from SFC are operated using methanol. The methanol is stored in EFOY fuel cartridges that have been designed especially for this purpose. Depending on requirements, EFOY fuel cartridges are available in 5, 10, 28 and 60 litre capacities. High-purity methanol is needed to reliably operate the EFOY Fuel Cells. To ensure compliance with the strictest safety standards, each filling operation is supervised by SFC quality management. Only when original EFOY fuel cartridges are used, can the maximum operating life of the fuel cell be guaranteed.

According to the CLP Regulation, methanol is categorised as a poisonous and easily flammable substance. You can find more information in the safety data sheets in the download area of our website efoy-pro.com/downloads-en



| The EFOY fuel cartridge | M5 | M10 | M28 ¹ | MT60 |
|-------------------------|--------------------|--------------------|--------------------|--------------------|
| Contents | 5 litres | 10 litres | 28 litres | 60 litres |
| Weight | 4.3 kg | 8.4 kg | 23.4 kg | 55 kg |
| Nominal capacity | 5.6 kWh | 11.1 kWh | 31.1 kWh | 66.7 kWh |
| Size (L x W x H) | 190 x 145 x 283 mm | 230 x 193 x 318 mm | 370 x 285 x 395 mm | 340 x 390 x 670 mm |
| Autonomy @ 50 W | 111 hours | 222 hours | 622 hours | 1,333 hours |

¹ M28 adapter required

High energy density

The high energy density of methanol provides a lot of energy in a very small space with EFOY fuel cartridges. 10 litres of methanol has a capacity of 11.1 kWh of energy and weighs just 8.4 kg. To deliver the same quantity of energy, around 280 kg of lead-gel batteries would be needed. As a result, the autonomy of your off-grid application can be increased many times.

Safety-tested

EFOY fuel cartridges have been designed to meet the strictest safety standards and have received UN approval for transportation by sea, road and air. Their design ensures that the user is never at risk of coming into contact with their contents.

Global fuel cartridge logistics

SFC has established a global logistics network for the sale of EFOY fuel cartridges. EFOY fuel cartridges are available from SFC retailers worldwide. EFOY fuel cartridges can also be transported on pallets via road, sea and air.



Installation

EFOY fuel cells and EFOY lithium batteries can be installed almost anywhere.



EFOY Quality

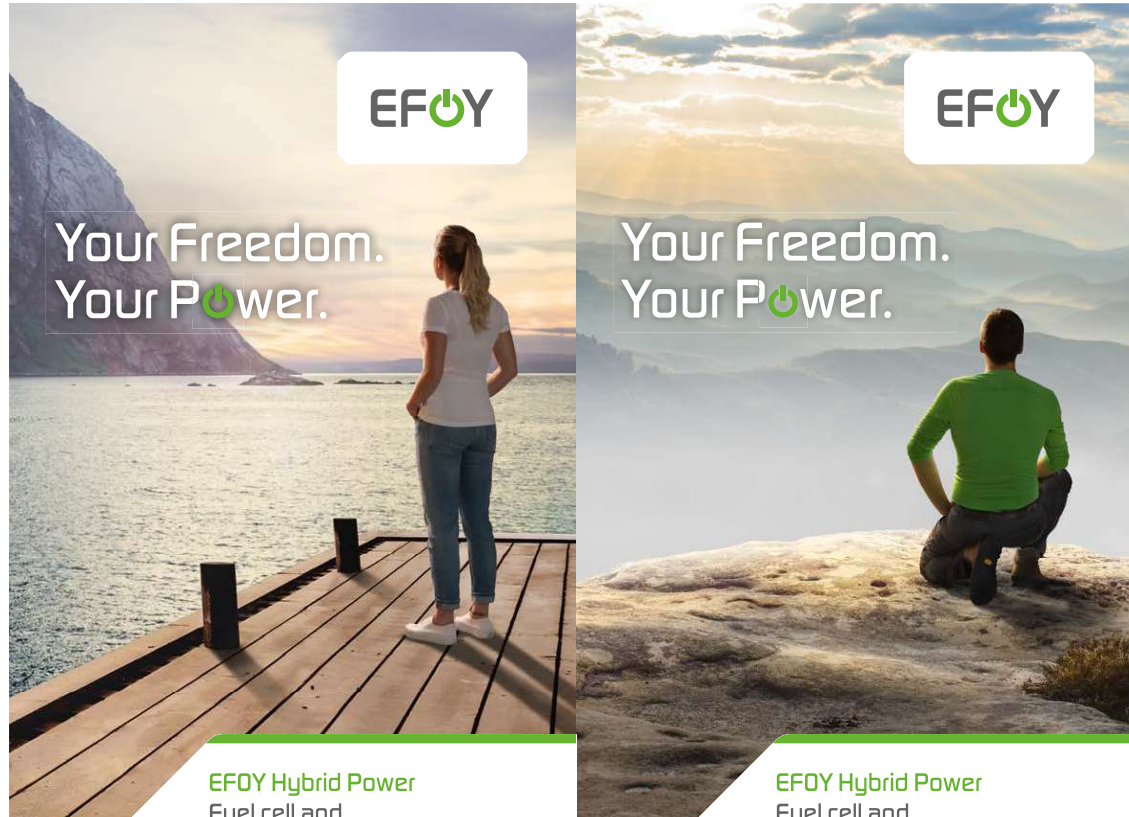
With over 20 years of experience and more than 45,000 fuel cells sold, SFC Energy AG is a leading supplier of direct methanol and hydrogen fuel cells, as well as lithium batteries and energy management systems for stationary and mobile hybrid power supply solutions. Our fuel cells are developed and produced in Germany. Our products' safety is evaluated and tested by the Technical Inspection Association (TÜV).



Platz für
FSC-
Logo

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sales@sfc.com | my-efoy.com

Your authorized EFOY dealer:



EFOY Hybrid Power
Fuel cell and
lithium battery



my-efoy.com


EFOY Hybrid Power
Fuel cell and
lithium battery



my-efoy.com

EFOY Hybrid Power

Together, the EFOY fuel cell and EFOY lithium battery are unbeatable: 100% self-sufficient, weather-independent, environmentally friendly and quiet. The integrated smart Battery Management System (BMS) establishes intelligent communication between the fuel cell and the lithium battery. As a result, the battery benefits from optimum charging, special protection and a long service life.

-  High performance
-  Intelligent
-  Efficient



Control via the EFOY app

You can easily control your EFOY products from your smartphone or tablet via the EFOY app. Here you'll find all the important data on the EFOY fuel cell, the EFOY lithium battery and the EFOY fuel cartridge. You can also use the free EFOY app to search for dealers and take advantage of the numerous service tips.



EFOY Lithium Battery

The EFOY lithium (LiFePO₄) battery as a power storage device is the perfect starting point for an off-grid power supply. The integrated smart Battery Management System (BMS) continuously controls and optimizes the battery parameters for optimum efficiency and battery protection. Thanks to the built-in heating element, the EFOY lithium battery is able to charge even at sub-zero temperatures. The robust housing protects against water splashes.



Suitable for winter use



Battery Management System



High discharge current



What you should know about the lithium battery

- ✔ Virtually the entire battery capacity can be used
- ✔ Designed for high discharge currents, which allows the operation of powerful consumers
- ✔ Light, safe and durable

| EFOY Lithium Battery | EFOY Li 70 – 12 V | EFOY Li 105 – 12 V |
|------------------------|--------------------|--------------------|
| Nominal capacity | 70 Ah | 105 Ah |
| Nominal voltage | 12.8 V | 12.8 V |
| Weight | 11.8 kg | 16.3 kg |
| Dimensions (W × D × H) | 269 × 175 × 190 mm | 368 × 175 × 190 mm |

Determine your energy requirements at my-efoy.com

| Vehicle type | | | |
|-----------------------------------|-------------------------------|--|--|
| Energy demand/ travel behavior | 35 – 60 Ah/day short trips | 55 – 70 Ah/day mainly short trips, up to 4 days | 70 – 120 Ah/day suitable for extended vacations |
| Recommendation | | | |

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EFOY Fuel Cell

The EFOY fuel cell is the best power generator for on-the-go. It produces environmentally friendly electricity as part of a chemical reaction, which charges the on-board battery. This quiet process is entirely automatic, meaning that you can enjoy your time off. 230 V devices can also be used in conjunction with an inverter.



Compact and lightweight



Fully automatic and maintenance-free



Environmentally friendly and silent



What you should know about the fuel cell

- ✔ Can be used all year round – 365 days without being plugged in
- ✔ Once installed, it is practically maintenance-free
- ✔ Low-noise power generation

| EFOY Fuel Cell | EFOY 80 | EFOY 150 |
|---------------------------|--------------------|--------------------|
| Maximum output | 40 W | 75 W |
| Maximum load capacity/day | 12 V | 12 V |
| Nominal voltage | 12 V / 24 V | 12 V / 24 V |
| Weight | 6.3 kg | 6.6 kg |
| Dimensions (W × D × H) | 448 × 198 × 275 mm | 448 × 198 × 275 mm |

EFOY Fuel Cartridge

EFOY fuel cartridges are safe, clean and available everywhere. The worldwide dealer network can be found at www.efoy.com or on the **EFOY app**.

| EFOY Fuel Cartridge | M5 | M10 |
|------------------------|--------------------|--------------------|
| Total capacity | 460 Ah | 925 Ah |
| Volume | 5 liters | 10 liters |
| Consumption | 0.9l / kWh | 0.9l / kWh |
| Dimensions (W × D × H) | 203 × 154 × 292 mm | 234 × 203 × 327 mm |



DATA SHEET – EFOY FUEL CELLS – NEW GENERATION



Performance data¹ 12 V


| | EFOY 80 | EFOY 150 |
|--|---------|----------|
| Max. output power | 40 W | 75 W |
| Output Power ² within 3.000 hours | 24 W | 45 W |
| Max. charging current @ 10.5 V | 3.8 A | 7.1 A |
| Recommended minimal battery capacity lead batteries | 40 Ah | 60 Ah |
| Maximum adjustable battery capacity lead batteries | 800 Ah | |
| Recommended minimal battery capacity LiFePO4 batteries | 20 Ah | 30 Ah |
| Maximum adjustable battery capacity LiFePO4 batteries | 600 Ah | |
| Quiescent current consumption | 0,5 W | |

Performance data¹ 24 V

| | EFOY 80 | EFOY 150 |
|--|---------|----------|
| Max. output power | 40 W | 75 W |
| Output Power ² after 3.000 hours | 21 W | 43 W |
| Max. charging current @ 21.0 V | 1.9 A | 3.6 A |
| Recommended minimal battery capacity lead batteries | 20 Ah | 30 Ah |
| Maximum adjustable battery capacity lead batteries | 400 Ah | |
| Recommended minimal battery capacity LiFePO4 batteries | 10 Ah | 15 Ah |
| Maximum adjustable battery capacity LiFePO4 batteries | 300 Ah | |
| Quiescent current consumption | 0,6 W | |

DATA SHEET – EFOY FUEL CELLS – NEW GENERATION

General technical data for EFOY Fuel Cells

| | EFOY 80 | EFOY 150 |
|---|---|-------------|
| Nominal voltage | Lead: 12 V / 24 V (Lead-Gel, Lead-Acid, AGM) LiFePO4: 12.8 V / 25.6 V | |
| Acceptable battery types | Lead: 2 V cells: 6S (12 V) und 12S (24 V) LiFePO4: 3.2 V cells: 4S (12.8 V) und 8S (25.6 V) | |
| Consumption ³ | 0.9 l / kWh | |
| Connectable cartridges | 1 | |
| Length fuel cartridge connector | 75 cm / 29.5 in | |
| Weight | 6.5 kg | 6.9 kg |
| Dimensions L x D x H | 448 x 198 x 275 mm | |
| User interface | Push button and LED optional 4,3" TFT Display optional Bluetooth adapter – EFOY App optional Ethernet router to EFOY Cloud | |
| Data interface | RJ-12 socket (CAN & RS232) for the use of accessories RJ-45 socket (Ethernet) | |
| Communication protocol | MODBUS TCP; clear text protocol (SIO commands) | |
| Electrical interface | 4-pin Plug for EFOY charging cable Power: Positive (+) and negative (-) terminals: 4 mm ² (AWG 12) Sense: Positive (+) and negative (-) terminals: 0.75 mm ² (AWG 20) | |
| Electrical interface for EFOY accessory | Positive (+) and negative (-) terminals: min 0.75 mm ² (AWG 20) / max 2.5 mm ² (AWG 14) Available voltage: battery voltage, Max. current: 3A | |
| Noise level ⁴ at 1 m | < 44 dB (A) | < 47 dB (A) |
| Minimal installation space (L x D x H) | EFOY Fuel Cell Only: 510 x 320 x 290 mm | |
| Inclination along the roll axis | permanent: max. 35° | |
| Inclination along the lateral axis | permanent: max. 35° | |
| Operating temperature ⁵ | -20 °C to +40 °C / -4 °F to +104 °F | |
| Start-up temperature | +3 °C to +40 °C / +37 °F to +104 °F | |
| Storage temperature | +1 °C to +50 °C / +34 °F to +122 °F | |
| International Protection (IP-Class) | IP 21 | |
| Altitude | At approx. 2000 m above sea level there is a reduction in performance possible | |
| Warranty ⁶ | 24 months within 3.000 operating hours | |
| Certificates |  | |

DATA SHEET – EFOY FUEL CELLS – NEW GENERATION



Fuel Cartridges

| | M5 | M10 |
|----------------------|--|---|
| Volume | 5 litres / 1.32 gallons | 10 litres / 2.64 gallons |
| Weight | 4.3 kg / 9.5 lbs | 8.4 kg / 18.5 lbs |
| Nominal capacity | 5.6 kWh | 11.1 kWh |
| Autonomy @ 50 W | 111 h | 222 h |
| Dimensions L x W x H | 190 x 145 x 283 mm / 7.5 x 5.7 x 11.1 in | 230 x 193 x 318 mm / 9.1 x 7.6 x 12.5 in |

¹ All performance data apply to the connection of the charging cable to the EFOY.

² The output power varies by $\pm 10\%$ and decreases with the operating hours, depending on the installation situation and the operating conditions. Operation still possible after 3000 h, no guaranteed power output.

³ Effective consumption depends on operating conditions and hours.

⁴ Different noises may occur due to different components.

⁵ The output power may be reduced at temperatures above $+35\text{ }^{\circ}\text{C}$ / $95\text{ }^{\circ}\text{F}$. At temperatures below $0\text{ }^{\circ}\text{C}$, charging lithium batteries (LiFePO4) may not always be p6

⁶ Warranty conditions: "Warranty_EFOY 80_150" apply