



Hybrid Power Solution for Remote Applications



Reliable operation



Long periods of autonomy,
maintenance-free



Economical, quiet
and emission-free



Security applications - whether stationary or mobile surveillance in vehicles - frequently require off-grid, reliable and non-detectable power.

Semi-stationary and stationary CCTV systems often have to be installed in remote areas, without access to main grid. Government vehicles often require power for many days and weeks to supply on-board electronic devices in idle-free mode. Turning on the engine to charge on-board batteries should be avoided in order to increase flexibility of command vehicles and to avoid being detected on a covert investigation.

For both application scenarios, the power source should be small and compact, and produce little to no signature.

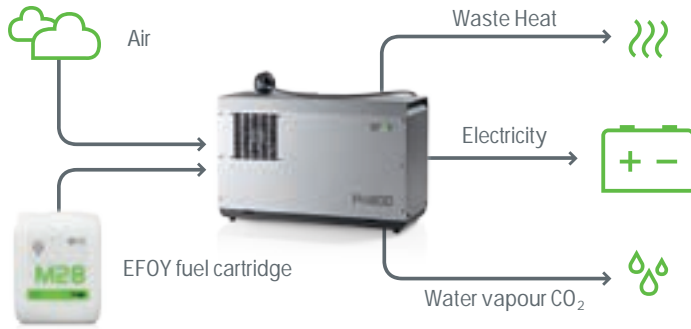
EFOY Pro fuel cells are the power source of choice that fulfill these requirements for mobile and stationary security applications. They provide reliable power for weeks on end, without requiring maintenance or having to turn on the engine.

The compact EFOY Pro fuel cell is integrated into weatherproof outdoor boxes, NEMA 3 enclosures or in trailers.

Numerous law enforcement, military organizations and commercial CCTV companies world-wide trust in power from EFOY Pro fuel cells.

EFOY Pro Fuel Cell Generators - Technology

EFOY fuel cell generators are based on DMFC (Direct Methanol Fuel Cell) technology. They use an eco-friendly catalytic process to convert methanol (methyl alcohol) into electricity in a direct and efficient process without intermediate steps. This makes this technology one of the cleanest ways of generating electricity.

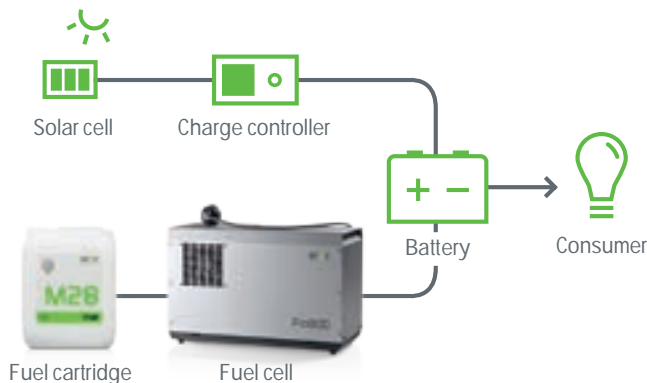


DMFC fuel cell generators are the ideal energy solution for off-grid and mobile applications.

SFC fuel cell generators are smart energy producers that can be used to continuously and automatically recharge batteries. To do this, the fuel cell generator is connected directly to the battery and monitors its charge level. Depending on the demand, the fuel cell generator recharges the battery to its full capacity and then automatically switches to standby mode. There is no need for operator intervention.

EFOY Pro fuel cells compared to other technologies

- ✓ More power than solar and weather independent
- ✓ Longer autonomy than batteries
- ✓ More eco-friendly and economical than conventional generators



Supplement your standalone solar power system with an EFOY Pro fuel cell generator

The perfect solution for ensuring 100 % availability with minimum fuel consumption is the use of an EFOY Pro fuel cell generator as hybrid energy supply or as back-up for a solar power system. When the solar system is unable to deliver enough power, the fuel cell generator automatically switches on and compensates the shortfall in energy. Therefore, complex designs for large solar power systems can be avoided and the reliability of the system can be increased significantly.

Extremely high energy density



Fuel cartridges	M10	M28 (only with M28-Adapter)
Volume	2.64 US gallons / 10 litre	7.4 US gallons / 28 litre
Weight	18.5 lbs / 8.4 kg	48.5 lbs / 22 kg
Nominal Capacity	11.1 kWh	31.1 kWh
Dimensions D x W x H	9.1 x 7.6 x 12.5 in / 230 x 193 x 318 mm	14.6 x 11.2 x 15.6 in / 370 x 285 x 395 mm
Autonomy @ 45 W cont.	M10: 10 days	M28: 28 days

EFOY Pro Energy Solutions

Off-grid power supply for extreme weather conditions down to - 40 °C (- 40 °F)



EFOY ProEnergyBox for extreme weather conditions

The EFOY ProEnergyBox has been developed specifically for use in extreme weather conditions. The box contains an EFOY Pro 800 or 2400 fuel cell generator, a battery and EFOY fuel cartridges. Thanks to effective temperature regulation, the EFOY ProEnergyBox runs reliably in sub-zero temperatures as well as in high ambient temperature environments.

- ✓ Plug & play
- ✓ Long autonomy
- ✓ Solar hybrid compatible

EFOY ProCabinet for stationary applications in remote regions

The EFOY ProCabinet is a standardized hybrid power solution fully integrated in a NEMA 3R weatherproof enclosure. The power supply includes an EFOY Pro 800 Duo or EFOY Pro 2400 Duo, M28 fuel cartridges and, based on customer needs, solar panels, solar charger and batteries.

- ✓ High reliability & low maintenance
- ✓ Competitive price
- ✓ Easy installation



EFOY ProTrailer for mobile applications on critical sites.

The EFOY ProTrailer provides reliable off-grid power for surveillance, communication and other applications. Perfect for short or long term deployments, the EFOY ProTrailer includes a hybrid power solution fully integrated in a NEMA 3R weatherproof enclosure, a vertical mast, and solar mounting. The power supply includes an EFOY Pro 2400 Duo fuel cell, up to four M28 fuel cartridges and, based on customer load and location requirements, solar panels, solar charger and batteries.

- ✓ High reliability & low maintenance
- ✓ Easy installation of cameras or lights
- ✓ Quiet and eco-friendly operation

Proven Track Record 30,000 EFOY Fuel Cells in the Market



Sample calculation:

Power requirement: 50 - 100 W

Energy requirement: 1200 Wh - 2400 Wh

An EFOY Pro 2400 is integrated into the vehicle and connected to the on-board or secondary battery.

A 10-liter fuel cartridge will give up to 4 weeks of autonomy without a single fuel cartridge change.

Reliable on-board power in law enforcement vehicles

Since 2009, over 400 vehicles of the German Federal Office for Goods Transport are equipped with EFOY Pro fuel cells.

In idle-free mode, EFOY Pro fuel cells ensure reliable on-board power supply and therefore increase the flexibility of the fleet.

Numerous federal and law enforcement authorities in Europe and the US use EFOY Pro fuel cells as mobile on-board power supply for mobile office equipment and covert surveillance.

EFOY Pro Advantages

- ✓ Long autonomy
- ✓ 100% reliable off-grid power
- ✓ Non-detectable

Power for securing critical infrastructure

Surveillance and CCTV at construction sites, remote locations e.g. mining or for temporary use on roads or railways are some application scenarios, where energy solutions based on EFOY Pro fuel cells are successfully being used to reliably supply power to secure critical infrastructure.

EFOY Pro Advantages:

- ✓ Easy installation
- ✓ Emission-free
- ✓ Long autonomy, no maintenance

SFC Energy and its products are certified



Sample calculation:

Power requirement continuously: 45 - 100 W

Energy requirement: 1080 Wh - 2400 Wh per day

An EFOY ProTrailer including an EFOY Pro 2400 Duo with four connected M28 fuel cartridges, two DuoCartSwitches, a 1000 Wp solar system and batteries for high currents.

With this energy solution in use, autonomy of more than two months can be achieved without any costly servicing.

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