

Type Mining & construction
Application Power supply of a container in a gravel pit



Requirements

- Hybrid solution consisting of PV and fuel cell
- Power consumption

per day	11,4	kWh
per year	4.160	kWh

- Solar operation:** PV panel ensures energy supply and charges battery if necessary
- Battery operation:** Battery supplies energy immediately if solar is not available
- Ecoport operation:** Ecoport recharges battery, methanol supply of 75 l ensures a generating capacity of approx. 120 kWh

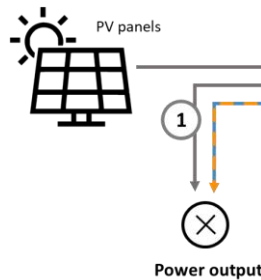
Simulation & key figures

Energy generation [per year]

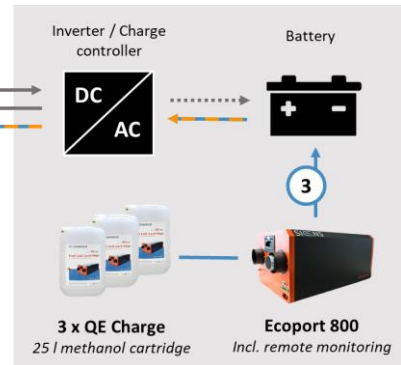
PV panels	8.436	kWh
Ecoport 800	695	kWh

Ecoport 800 [per year]

Methanol consumption	424	liters
Runtime	869	hours
Number of starts	65	



System overview



System description

- Ecoport 800 – methanol fuel cell
- EcoCabinet – weatherproof cabinet
- 8 kWp solar panels
- 230 V AC electrical system including solar inverter
- 12.7 kWh lithium-ion battery
- QE Charge (25 l) - UN 3473 methanol fuel cell cartridges

System benefits

- Reliable:** uninterrupted power supply at any time of the year, even in extreme weather conditions
- Economical:** low fuel consumption and maintenance-free operation
- Clean:** reduction of emissions by up to 99% and silent production of energy
- Simple:** fully functional energy system with perfectly matching components

