ADVENT

HT-PEM FUEL CELL TECHNOLOGY

H3 5000

High Voltage Variants

- Low noise and no harmfull emission
- Compact and light footprint
- High efficiency and lower fuel costs
- Flexible installation in- and outdoor
- Reduction of CO_2 footprint
- Elimination of fuel and equipment theft

CLEAN, SIMPLE AND SUSTAINABLE POWER

The H3 5000 fuel cell systems offer a simple, powerful and reliable solution for on-demand power generation. On top of that, it is uniquely designed in a way where methanol is reformed on site to hydrogen. This means that the fuel for the systems is liquid and is not only easily distributed but also available all around the world. The system produces up to 5kW and as the system is modular, multiple systems can be interconnected.

The system delivers DC power directly, meaning that it is a highly efficient solution. There is no need for additional converters that have high power losses as a result. This reduces complexity and fuel consumption on site.

The system has built-in energy management system to combine with hybrid systems such as wind or solar power.

As a low maintenance power solution the system is ideal for critical backup power, temporary or continuous 24/7. This means that the system can work in off-grid applications as well as backup power in grid applications.

The system uses HT-PEM technology which is unique and offers many advantages.

Methanol fuel cell unit

HIGH VOLTAGE VARIANTS	
190 [Vdc]	144-237
250 [Vdc]	200-312
380 [Vdc]	288-474
500 [Vdc]	400-624
760 [Vdc]	576-948
1000 [Vdc]	800-1248

PERFORMANCE	
Max power output[1] [kW]	5
Nominal output [kW]	3.75
Turn down [%]	0 - 100
IP rating	IP-20

1. Max power at beginning of life.

OPERATIONS	
Fuel mix	60% vol methanol, 40% vol deionized water
Fuel consumption[2] [l/kWh]	0,897
Net electric efficiency[2] [%]	41
Ambient temperature[3] [oC]	-20°C and up to 50°C
Interfaces	AUX, HTTP/SNMP/Ethernet IP, CAN open, Remote monitoring and USB

2. At beginning of life and rated load.
3. Options for lower temperatures.

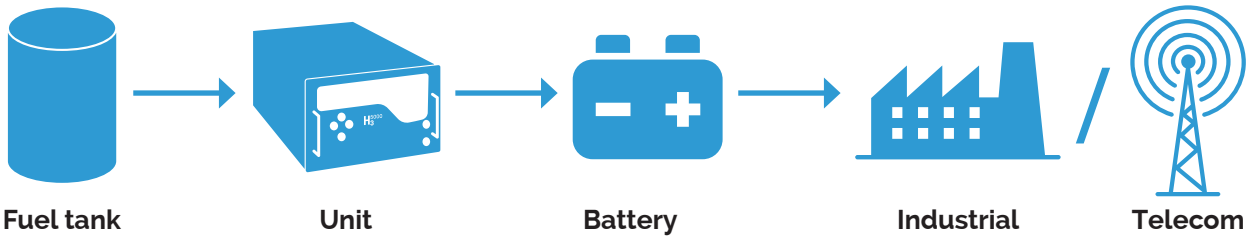
WEIGHT & DIMENSIONS	
Hight [mm] / Rack units [U]	267 / 6
Width [mm] / Rack size [in]	430 / 19
Length[4] [mm]	702
Weight [kg]	65,5
Volume [l]	80,6

4. Length excluding handles, connectors on front and exhaust pipes on rear.

All numbers related to kW or kWh is electrical power / Energy delivered at module terminals (kWe / kWhe)

Contact Advent for other voltage variants.

Typical set-up



Dimensions