

A range of innovative, high-performance fuel cell systems



General

H2SYS manufactures hydrogen fuel cell systems adapted to industrial and system integrators. The Balance of Plant has been fully designed to offer a «plug and play» system : no need of specific pressure reducer or control board for cooling and humidification. User only controls the power of the fuel cell system by the load in output.

AIRCELL product range has been designed for reliability and optimum electric efficiency.

AIRCELL range is composed of 3 products covering powers from 500W to 3000W.

Several options are available for customization and for matching specificities of the targeted application.

Features

Ready-to-use

Self-powered

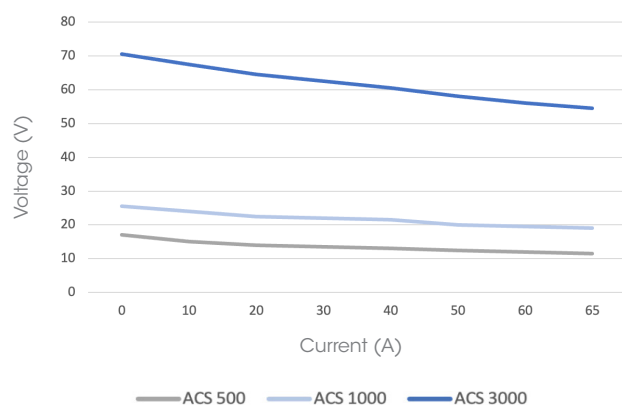
Communication (CanBus)

Modular (up to 5 systems in parallel)

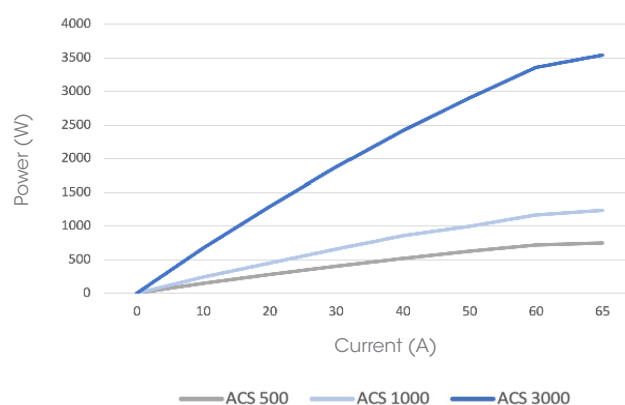
H2 and electric safety

High efficiency (up to 67%)

Polarization curves



Aircell polarization curves



Aircell power curves

Main option



DC/DC CONVERTER

The new DC/DC converter allows you to communicate with devices such as a battery with the electricity produced by the AIRCELL fuel cell.

Its role is to efficiently distribute electrical energy to power auxiliary systems while ensuring voltage stability.

Technical datas

PERFORMANCES

AIRCELL	500 ACS	1000 ACS	3000 ACS
Nominal power (W)	500	1000	3000
Maximal power (W)	680	1250	3600
Output voltage (V)	12 -18	18- 28	52 - 80
Min / Max current (A)	5 - 50 / max 65 A dur. 30s		
Sizes (mm): L x l x h	212 x 423 x 347	212 x 423 x 402	212 x 423 x 686
Mass (kg)	10	13	24
Number of cells	18	28	80

HYDROGEN

Hydrogen specification	Minimum quality grade 3,5 (99,95%)		
Hydrogen inlet pressure	5 - 9 bar		
Fuel consumption	65 g/kWh		
Nominal fuel consumption	6 NI/min	10 NI/min	30 NI/min

OPERATION

System power supply	24 Vdc (@start-up 200W)
Starting procedure	Start and stop button CANbus message (optional : user interface or Modbus message)
Start-up ramp	1 A/s
Communication protocol	CANbus 2.0 A
Operating ambient temperature	+ 5°C to + 45°C
Collectable datas	Voltage Current Temperature System Status Error reports
Optional features	ModBus communication (TCP/IP) DC/DC converter

CERTIFICATION

Designed under CE directives

Stack : IEC 62282-2:2012
Low voltage - 2014/35/UE
CEM - 2014/30/UE

**INFORMATION
AND
REQUEST FOR QUOTATION**



H2SYS

19 rue Becquerel - 90000 Belfort - France
+ 33 (0)3 39 03 40 93
info@h2sys.fr
www.h2sys.fr