



Powering the hydrogen future™ with our outstanding fuel cells and service.

IE-SOAR 800W

IE-SOAR™ fuel cell power modules directly replace batteries and give much longer flight times.

Enable previously impossible applications – your business is no longer constrained by flight time.

Unlock BVLOS operations – BVLOS makes sense with the range provided by fuel cells.

Increase operational efficiency – spend more time in the air and achieve more.

Lower cost per flight hour – at volume, fuel cells are cheaper than batteries.

Technical benefits

- Designed for safety and reliability: single point failure tolerant and built in power system redundancy.
- Combine systems in parallel for 1600W output.
- Direct battery replacement: 6S to 12S compatible – automatically follows load demand just like a battery.
- Modular design: separate control and fuel cell for more flexible integration into fuselage.
- Range extender and battery management versions available.
- Low noise signature and zero-emissions.
- Targeted at VTOL and fixed wing integrations.
- Based on architecture of Intelligent Energy's proven 2.4kW product.
- 1000 hour commercial warranty.

Fuel cells vs. internal combustion engines

- Clean & zero-emission
- Near silent operation
- Reduced maintenance. No moving parts. No tuning.
- Vibration free for maximum stability

Fuel cells vs. batteries

- Increased flight time
- Fast refueling
- Built in power system redundancy

IE-SOAR™ 800W specifications

Maximum continuous power		800W	
Peak power		7500W - hybrid battery dependent	
Output voltage (DCDC regulated)		Configurable between 24V and 48V	
Fuel Cell Power Module (FCPM)	Dimensions (Fuel cell)	230.5 x 108.4 x 119.8mm	
	Dimensions (control box)	202.2 x 107 x 45.15mm	
	Mass	1450g	
Hydrogen Regulator	Mass	315g	
	Maximum regulator (cylinder) pressure	350 bar/5000 psi	
	Output pressure	0.9 bar ± 0.1 / 13 psi ± 1.5 psi	
	Maximum cylinder mass	10kg	
Environmental operating conditions	Startup temperature	5°C to 40°C	
	Operating temperature	-5°C to 40°C	
	Maximum altitude *	3000m	
	Storage temperature	-10°C to 70°C	
	System warranty	1000 hours	
Safety features	Dual redundant power system and backup battery		
	Certification of IE-SOAR™ 800W		CE and FCC
Other features	Internal data storage for firmware update, performance and diagnostics		SD card
	Communication protocol to UAV or accessories		UART / CAN
Example Integration at 400W			
	Cylinder	System Mass	Flight Time
TPED/DOT Certified	3.0L	4kg	2.6 hours
	4.8L	4.9kg	4.0 hours
	6.8L	5.3kg	5.9 hours
Specialist	3.5L	3.7kg	3.4 hours
	5.0L	3.9kg	4.9 hours
	9.0L	4.9kg	8.8 hours
Best performing custom	16.0L	7.4kg	15.6 hours

* It may be to widen this range depending on customer power requirements.



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For more information about our products visit our website: www.intelligent-energy.com

To find out how you could benefit from longer flight times, arrange a meeting with a sales representative in your region by emailing: sales@intelligent-energy.com

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