

## Data sheet

# IE-SOAR™ 800W second generation

**Lightweight fuel cell power module enabling longer flight times for UAVs.**

**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.

### 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.

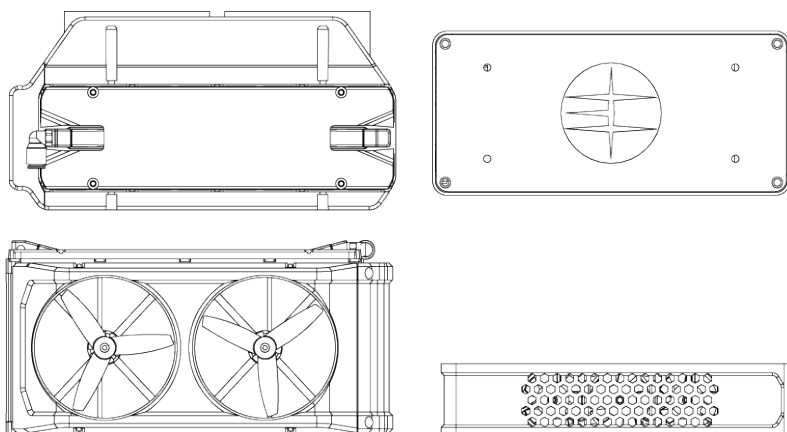
Coming soon

# IE-SOAR™ 800W second generation specifications\*

Maximum continuous power	800W			
Peak power	Up to 2400W			
Output voltage (DCDC regulated)	Configurable between 24V and 48V			
<b>Fuel Cell Power Module (FCPM)</b>	Dimensions (Fuel cell)	210 x 105 x 105mm		
	Dimensions (control box)	195 x 90 x 40mm		
	Mass	1450g		
<b>Hydrogen Regulator</b>	Mass	315g		
	Maximum regulator (cylinder) pressure	350 bar/5000 psi		
	Output pressure	0.9 bar.g ± 0.1 bar.g / 13 psig ± 1.5 psig		
	Maximum cylinder mass	10kg		
<b>Environmental operating conditions</b>	Startup temperature	5°C to 40°C		
	Operating temperature	-5°C to 40°C		
	Maximum altitude**	5000m		
	Storage temperature	-10°C to 70°C		
	System warranty	1000 hours		
<b>Safety features</b>	Dual redundant power system and backup battery			
<b>Other features</b>	Internal data storage for firmware update, performance and diagnostics	SD card		
	Communication protocol to UAV or accessories	UART / CAN		
<b>Example Integration at 400W</b>		<b>Cylinder</b>	<b>System Mass</b>	<b>Flight Time</b>
	<b>TPED/DOT Certified</b>	3.0L	4kg	2.6 hours
		4.8L	4.9kg	4.0 hours
		6.8L	5.3kg	5.9 hours
	<b>Specialist</b>	3.5L	3.7kg	3.4 hours
		5.0L	3.9kg	4.9 hours
		9.0L	4.9kg	8.8 hours
	<b>Best performing custom</b>	16.0L	7.4kg	15.6 hours

\* Subject to change

\*\* It may be possible 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](http://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](mailto:sales@intelligent-energy.com)