IE-Soar™ 800W
Lightweight fuel cell power module for UAVs and other portable applications

Intelligent Energy is a fuel cell engineering company focused on the development and commercialisation of its PEM fuel cell technologies for a range of markets including automotive, stationary power and UAVs. We are headquartered in the UK, with additional offices and representation in the US, Japan, South Korea and China.

Intelligent Energy provides a unique solution to extend flight times to drones presently constrained by the limitations of batteries. Flight durations of over three times that provided by batteries have been achieved and fuel cells provide a natural solution for manufacturers moving to larger drones and heavier payloads.

Intelligent Energy’s air cooled fuel cell systems run on hydrogen and ambient air to produce clean DC power in a simple, cost-effective, robust and lightweight package. They have a higher energy to mass ratio than battery based systems and can be refuelled in a few minutes.

Applications
• Survey and inspection
• Search and rescue
• High quality aerial photography
• Precision agriculture
• Parcel delivery
• Warehouse inventory
• Law enforcement
• Military
• Robotics
• Portable power

Please contact us for availability and pricing.
IE-Soar™ 800W specifications

<table>
<thead>
<tr>
<th>Maximum continuous power</th>
<th>800W</th>
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<tbody>
<tr>
<td>Maximum peak power</td>
<td>1400W</td>
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<tr>
<td>Output voltage</td>
<td>19.6V to 25.2V</td>
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</tbody>
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**Fuel Cell Power Module (FCPM)**
- Dimensions: 196 × 100 × 140mm
- Mass: 930g

**Hydrogen Regulator**
- Mass: 250g
- Maximum regulator (cylinder) pressure: 350 bar/5000 psi
- Output pressure: 0.5 bar ± 0.25 bar/7 psi ± 3 psi
- PRV set pressure: 2 bar/29 psi
- Burst disc set pressure: 450 bar/6500 psi
- Maximum cylinder mass: 10kg

**Hybrid battery**
- Dimensions: 120 × 35 × 40mm
- Mass: 300g
- Capacity: 1800mAh
- Emergency flight time: 2 minutes

**Environmental operating conditions**
- Operating temperature: 5°C to 35°C
- Maximum altitude: 3000m
- Storage temperature: -10°C to 70°C
- System lifetime: 1000 hours

**Safety features**
- Automatic failure detection 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 port; to UAV fuel cell power module or accessories: UART
- Output electrical connector: XT-60

1 It may be possible to widen the operating temperature envelope depending on customer power requirements.

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)