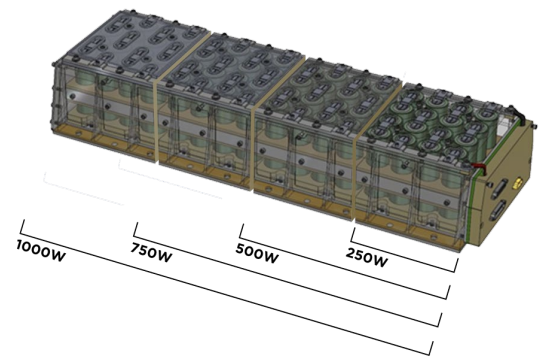




ibeos

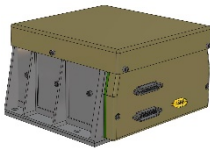
28-Volt Modular Battery



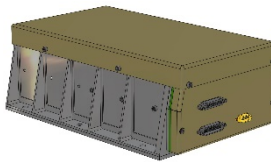
OVERVIEW

Ibeos' LEMS series, 28-Volt lithium-ion battery assemblies are radiation tolerant and fault tolerant. There are four unique configurations available with 275, 550, 825 and 1100-Watt-hour capacity, respectively. The aluminum and PEEK packaging is rigid, thermally conductive, and enables flexible mechanical and thermal spacecraft interfacing. Thermistors and polyimide thermfoil heaters allow for thermal control. Radiation tolerant battery interface electronics (BIE) provide a remove-before-flight inhibit in addition to over-voltage, over-current, and under-voltage protection.

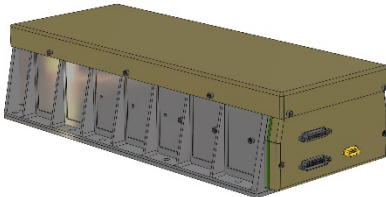
275-Watt-hour Battery



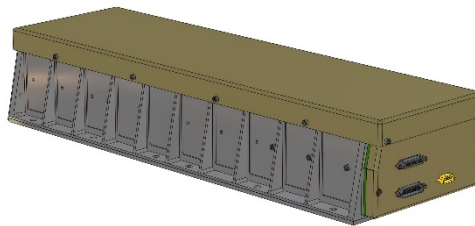
550-Watt-hour Battery



825-Watt-hour Battery



1100-Watt-hour Battery



SPECIFICATIONS

Parameter	275 WHr	550 WHr	825 WHr	1100 WHr
Width and Height Dimensions (mm x mm)	147 x 86			
Length Dimension (mm)	144	235	342	451
Mass (Kg)	< 2	< 4	< 6	< 8
Capacity (WHr)	275	550	825	1100
Max. Discharge Rate (A)	20	40	60	80
Recommended Charge Rate (A)	10	20	30	40
Voltage	13.2 V to 16.8 V			
Charge Cell Temperature	0 to 45 °C			
Discharge Cell Temperature	-25 to 55 °C			
Heater Power @ 16V	10W	20W	30W	40W
Single Event Effects	Operate through: LET > 37 Survive: LET > 55			
Total Ionizing Dose	30 kRad (Si)			

Packaging

- Bottom mounting
- Aluminum chassis and PEEK cell capture plates
- External aluminum surfaces treated with MIL-DTL-5541 Type II, Class 3 chem film
- Kapton thermfoil heaters

Built-In Protection

- Over-voltage, under-voltage
- Over-current charge and discharge
- Remove-before-flight
- Positive temperature coefficient (PTC) overcurrent protection at each cell

Modularity & Scalability

- Four unique configurations to different capacity requirements.
- Common battery packs

Electrical Interface

- 2X 51-Pin Micro-D connector
- 1X 15-Pin Micro-D Connector
- Connections for
 - Protected power
 - Cell voltage sense
 - Heater
 - 10k NTC thermistor (potted on a central cell)

Inquiries

Abigail Davidson