

1.1 KWH LITHIUM-ION BATTERY PACK WITH CHARGING DOCK

A High-Performance Battery Pack designed for Aviation, Marine and Stationary Storage.

The Staf Systems 1.1 kWh Lithium-Ion Battery Pack was designed for demanding applications using the latest cell technology from our exclusive partnership with AER CELL™. With an energy density of **160.5 Wh/kg** and a volumetric energy density of **169.0 Wh/L**, the 1.1 kWh Lithium-Ion Battery Pack provides exceptional energy density in a small package.

This battery pack comes complete with a charging dock and mating connector for immediate implementation into your application.



Charged by Delta-Q gives confidence that a particular battery and charger combination will provide your products with best-in-class performance, prolonged battery life, and maximum up-time.

BAT1400 1.1 kWh Battery Pack



Description

The BAT1400 1.1 kWh Lithium-Ion Battery Pack was developed for electric aviation customers and uses the AER CELL™ 4 Ah pouch cell. This cell was developed by AER CELL™ Technologies in partnership with Staf Systems and is exclusive to Staf Systems. With an energy density of 160.5 Wh/kg, this pack provides energy to take flight. The housing has been developed to be both light and protected from water ingress. The pack uses the Staf Systems BMS for low-voltage applications with CAN Bus communications. The pack features a single charge/discharge connector, and includes a mating connector for easy integration.

The included Charging Dock uses a Delta-Q Technologies ICL900 series charger and a slide-in/slide-out docking for easy charging. Charging takes approximately 90 minutes to full charge.

Features

- 1.1 kWh Lithium-Ion Battery Pack
- 48 V Nominal Voltage
- 6.85 kg Pack Mass
- 160.5 Wh/kg
- 169.0 Wh/L
- Integrated Battery Management System
 - CAN Bus communication
 - Solid-state switch
 - Pre-charge circuit
 - Sophisticated Fault Management System
 - State of Charge (SOC)
 - State of Health (SOH)
 - Safe Operating Envelope (SOE)
- DC Bus Sync (easily paralleled)
- LED Indicators

Applications

- Electric Drones
- Marine Vehicles
- Robotics

WHAT'S INCLUDED

- 1X **BAT1400** 1.1 kWh Battery Pack

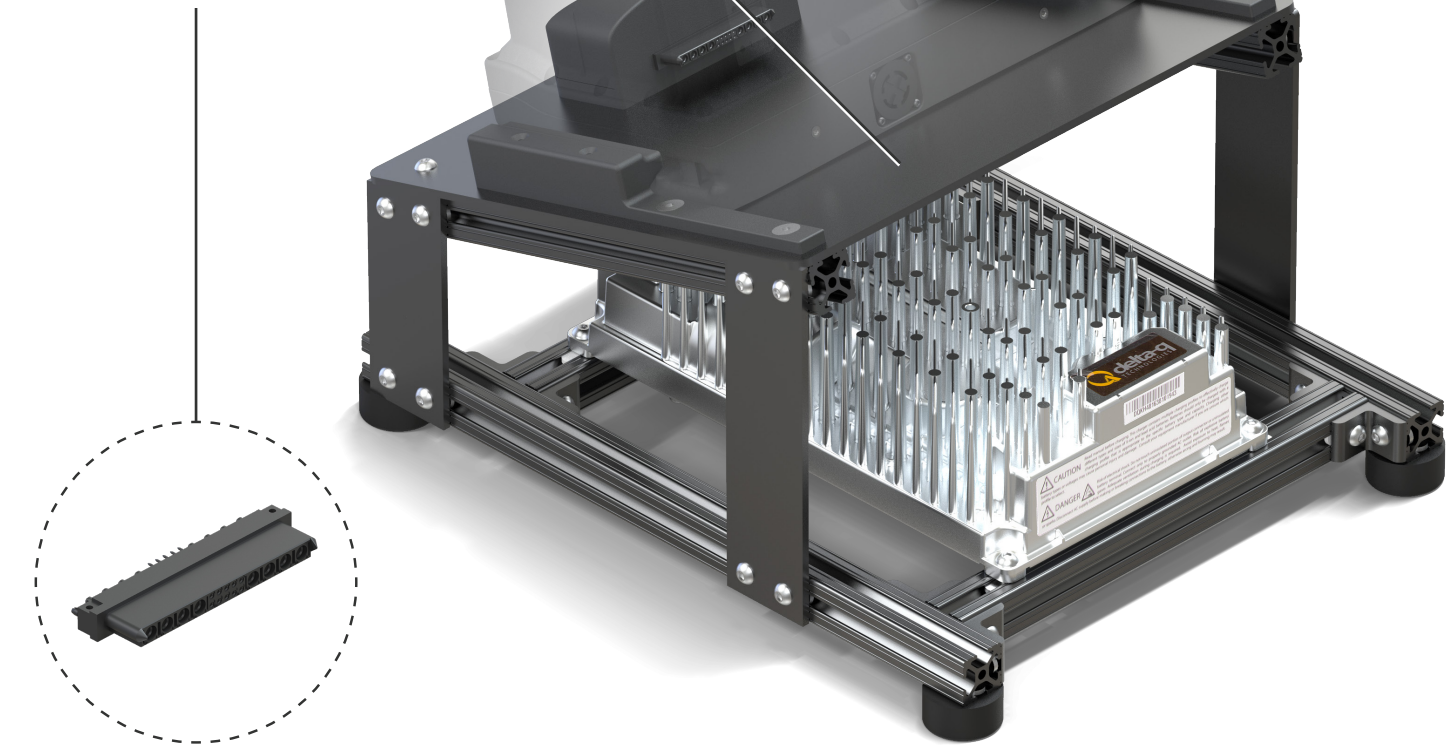
Full details: see facing page

- 1X **CHG1500** Charging Dock

Featuring the ICL900 Battery Charger by Delta-Q Technologies

- 1X Mating Connector

For installation in your vehicle or other application

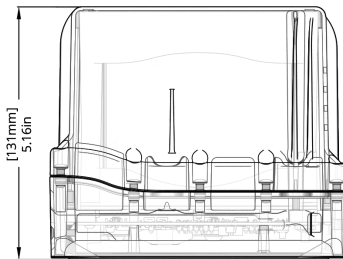
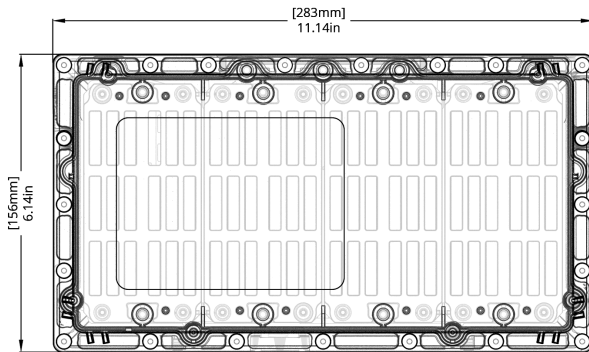


Charged by Delta-Q

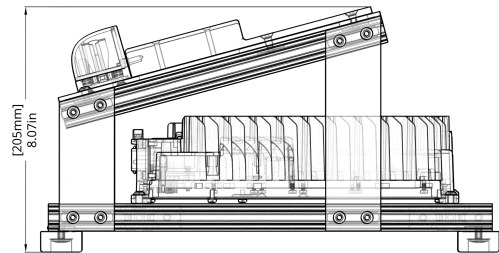
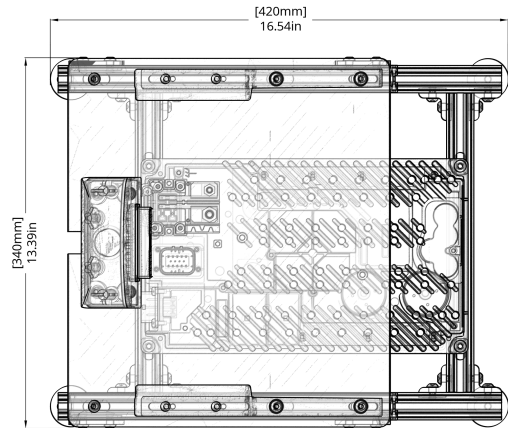
The Charged by Delta-Q mark indicates that a battery was tested and validated with Delta-Q's chargers, software and charge algorithms. Staf Systems is proud to support our customers by offering a complete battery and charger solution using Delta-Q's charging technology.

Mechanical Drawings

BAT1400 Battery Pack



CHG1500 Charging Dock



Specifications

Parameter				Units
Cell Chemistry		NMC		
Pack Energy		1.1		kWh
Pack Voltage	<i>Min</i>	<i>Nominal</i>	<i>Max</i>	V
	36	45.6	52.2	
Peak Power	<i>Charging 24 A</i>		<i>Discharge 150 A for 2 sec</i>	kW
	1.25		7.83	
Continuous Power (discharge - 120 A)		6.26		kW
Pack Mass		6.85		kg
Gravimetric Power Density		1308		W/kg
Gravimetric Energy Density		160.5		Wh/kg
Ambient Operating Temperature (dependent on duty cycle)	<i>Discharge</i>		<i>Charge</i>	°C
	-20 to 55		0 to 45	