

BAT1411 11 kWh High Voltage Battery Pack



Description

The Staf Systems BAT1411 is an 11 kWh battery pack built for versatility and ease of integration. Using Staf Systems BMS technology, the pack provides safety and reliability, while maintaining the flexibility to use the pack as a standalone system or as a module in a larger assembly. Connection is possible in parallel or series (up to 2S) with up to 16 packs in a single array. This architecture provides a safe and convenient option for building larger systems while reducing integration effort.

The pack features a built-in power distribution unit, which eliminates the need for external contactors, fuses, pre-charge circuits and other components that are often needed in a high-voltage system. Liquid cooling allows for high charge and discharge rates. This, along with high-performance NMC cells with Silicon Anode technology, enables greater performance without compromising cycle life.

The BAT1411 battery pack is Staf Fleet ready. This optional system quickly connects with Staf Fleet, providing real-time data about the battery pack anywhere in the world, with the ability to monitor performance and quickly identify and address issues to reduce system downtime.

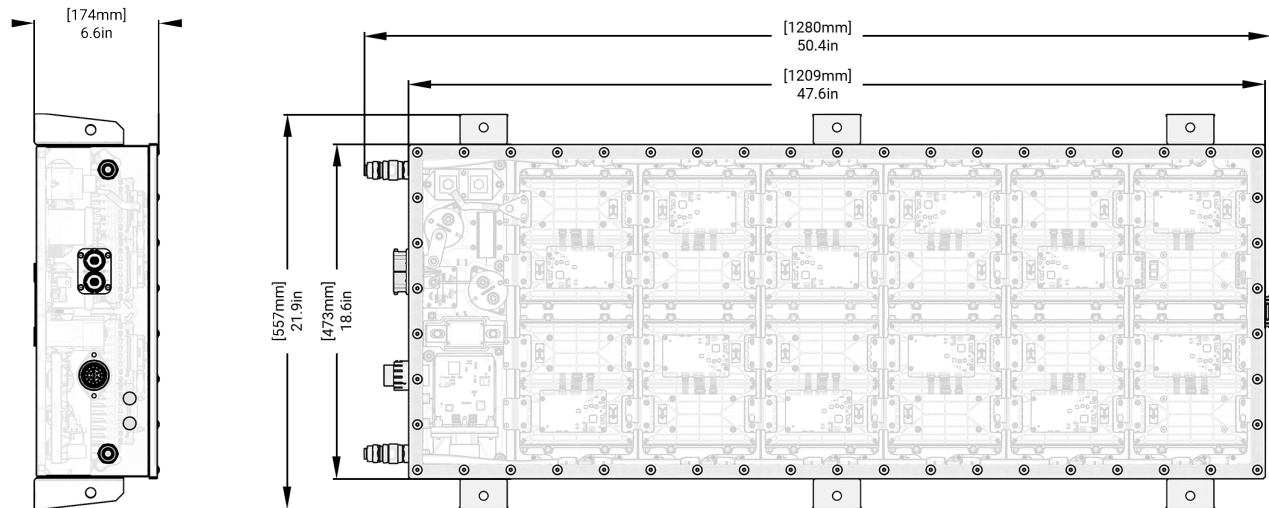
Features

- 11.6 kWh Lithium-Ion Battery Pack
- 365 V Nominal Voltage
- 89 kg Pack Mass
- 131 Wh/kg
- Integrated Staf Systems BMS Technology
 - State of Charge (SOC)
 - State of Health (SOH)
 - Safe Operating Envelope (SOE)
 - Cell Temperatures / Voltages
 - CAN Bus Communication
 - Pre-charge Circuit
 - Sophisticated Fault Management System
 - Advanced Fault Monitoring
 - Low Quiescent Current
- LED Indicators
- Connection in Parallel or Series (up to 2S)
 - Up to 16 Packs per Array
- Liquid Cooling
- Built-In Power Distribution Unit
 - Eliminates need for external contactors, fuses, pre-charge circuits and other necessary components
- IP67 Enclosure
- Staf Fleet Ready
 - Enables telematics and monitoring
- Made in USA

Applications

- Marine
- Aviation
- Off-Highway

Mechanical Drawing



Specifications

Parameter	Conditions	Min	Typical	Max	Units
General					
Cell Chemistry			Lithium Ion NMC w/ Silicon Anode		
Pack Energy	32 A Discharge (1C Rate) / 23 °C		11.6		kWh
Pack Voltage		288	365	418	V
Pack Capacity	32 A Discharge (1C Rate) / 23 °C		32		Ah
Power					
Continuous Charge Power				23.2	kW
Continuous Discharge Power				58.0	kW
Peak Charge Power	10 seconds / 23 °C			58.0	kW
Peak Discharge Power	10 seconds / 23 °C			116.0	kW
Mechanical and Environmental					
Pack Mass			89		kg
Gravimetric Power Density			1200		W/kg
Gravimetric Energy Density	1C Rate / 23 °C		131		Wh/kg
Operating Temperature	Charge	10		45	°C
	Discharge	-20		60	°C
Other					
System Isolation Voltage Rating	HV (Battery) to Accessory	1000			V
Accessory Power Input		9	12 / 24	32	V
Accessory Power Current	Depends on State	20		500	mA