



Over the past decade, technologies driving renewable energy have advanced at a tremendous pace but safe, economical, environmentally-friendly storage systems have not. The key to high-grid penetration of renewable energy sources will be a **cost-effective, reliable, environmentally-friendly, scalable battery technology.**

## DESCRIPTION

- HiVE is a large format energy storage system for use in a wide range of residential, industrial, smart grid, and military applications.
- HiVE's fully-integrated, high-voltage battery management platform is:
- Compatible with many conventional inverters on the market.
- Uses proprietary Multi-Mode Adaptive Power Technology (MAP) that connects solar array to the battery module and eliminates the need for a battery charge controller.
- Designed to accommodate alternative battery chemistries as they evolve.

## SPECIFIC ADVANTAGES

- Customers retain all the energy generated via on-site solar
- Directly coupled with solar panels through a unique HiVE subsystem
- BMS controls charge state rather than via external charger
- Compatible with many leading inverters
- Directly couples to inverter using a pre-charge circuit
- Powered by safe and environmentally-friendly lithium iron phosphate
- Requires less wiring which lowers installation costs
- Incorporates innovative cell tray design
- Uses fewer components than other battery systems

## PERFORMANCE BENEFITS

- BMS controls solid-state electronics can be switched under partial or full load thus ensuring the longevity of the system
- Provides quick response power at rates up to 2C
- Users are not exposed to dangerous high voltage
- Outperforms all other available chemistries and lower voltage batteries in every performance metric
- Unique string level isolation provides superior electrical safety by lowering nominal voltage from 400- 1000V to less than 52V for servicing.



# HiVE BATTERY SUITE



**Batteries have become the critical element to solve the energy storage challenge**

## GENERAL SPECIFICATIONS

Model No.	HIVE 72-6-22118-1.0	HIVE 72-7-25804-1.0
Nominal battery voltage	307.2 V	358.4 V
Nominal battery capacity	72 Ah	
Nominal battery energy capacity	22,118 Wh	25,804 Wh
Charge Type	CC/CV (Constant Current / Constant Voltage)	
Charge Cut-off Voltage	350.4 V	408.8 V
Discharge Cut-off Voltage	240 V	280 V
Internal Resistance	< 1 Milliohm per cell	
Atmospheric pressure	86-106 Kpa	
Relative humidity	<70%	
Cycle life	~8000 at 80 % DoD	
Max. Charge current	240 A (Continuous)	
Max. Continuous discharge current	480 A	
Nominal Continuous Discharge Current	144 A (2C)	
Max. Discharge Current:	144 A (2C)	
Battery monitoring	Integrated	
CanBus communication	CANbus	
Battery terminals	M8	
Mounting position	Upright	
Max. outer dimensions [LxWxH]	26" x 14" x 66"	
Weight (Cells only)	402.24 lbs	469.28 lbs
Total Weight	500 lbs	TBD

## TECHNICAL SPECIFICATIONS

Model No.	HIVE 72-6-22118-1.0	HIVE 72-7-25804-1.0
Battery chemistry	Lithium Iron Phosphate	
Protection degree	IP65 (Electronics Cabinet)	
Safety Relay Type	Integrated Overvoltage, Undervoltage, Overtemperature	
Safety Relay Controls	Integrated	
Operating Temperature charge	0 to 45 °C	
Operating Temperature discharge	-20 to 50 °C	
Safe Operating Range	240-350.4 V	280-408.8 V