

General

Part Number	HYP-00-2844
Voltage Nominal	44.4V
Voltage Range Min/Max	37.2V/49.8V
Charge Current	160A maximum De-rated by BMS message over CAN depending on cell voltage/temperature. Charger integration must follow this dynamic current limit. See user manual ¹
Discharge Current	130A maximum De-rated by BMS message over CAN depending on cell voltage/temperature. System/inverter should follow this dynamic current limit. See user manual ¹
Maximum Capacity	4.94kWh/111Ah
Maximum Energy Density	152Wh/kg
Useable capacity	Limited to 90% by BMS to improve cell life
Dimensions	W: 243 x L: 352 x H: 265mm
Weight	32kg
Mounting Fixtures	4x M8 mounting points for easy secure mounting

Cells

Cell Specification	12S2P Envision AESC Gen 4
Chemistry	Manganese Laminated Li-ion (LMNC)

Environmental

Enclosure	Sealed plastic case (IP55)	
Operating Temp Range	Charge: -25°C to +60°C	Discharge: -25°C to +60°C
Storage Conditions	Temperature: -40°C to +70°C	Humidity: Below 75%

Battery Management System (BMS)

Communication Protocol	CAN bus at user selectable baud rate (proprietary message format). J1939 compatible option available. ¹
Reported Information	Cell Temperatures and Voltages, Pack Current, State of Charge and Faults
Pack Protection Mechanism	Interlock to control external protection device e.g. contactor Note: The Hyperdrive modular battery pack cannot directly protect itself without an external protection circuit. This circuit must be approved by Hyperdrive before use. ²
Balancing Method	Actively controlled dissipative balancing
Multi-Pack Behaviour	BMS implements a single master and multi-slave system
Compatible Chargers as standard	Zivan, Delta-Q, TC-Charger, SPE, Victron, Bassi. For compatible models see user manual ¹
Charger Control	Direct current control based on cell voltage/temperature over CAN CAN bus data to allow other chargers to be implemented by user
Auxiliary Connectors	Binder 720-Series 8-way male & female
Power connectors	4x Amphenol SurLok Plus 8mm When using battery pack above 150A for considerable time, consider using both power connection points in parallel to allow for a suitable conductor cross section.

System Configuration

Max no of packs in series	8
Max Number of Parallel Packs	127
External System Requirements	<ul style="list-style-type: none"> External Protection Device (e.g. Contactor) controlled by BMS Interlock ² One External Fuse per series string BMS Enable signal (12-24V)

Standards

EMC	Designed to meet: EN61000-6-2:2005 and EN61000-6-3:2007 + A1:2011
Transport	UN38.3 rev 6 including impact and vibration testing
Other	RoHS directive and WEEE directive

¹ HYP-131-MAN-Z-001 - User manual R11 or above.

² ENG-F0-018 - Customer Schematic Checklist R2 or above.