DISCOVER ENERGY SYSTEMS

AES PACKS & RACKS ENERGY STORAGE SOLUTION

Packs and Racks (with optional TMS)

Discover's modular rack-mounted ESS platforms let OEMs build customized, energy-storage systems for controlled environments or with optional thermal management system for liquid cooling/heating. Certified to UL 9540A, UL 1973, and IEC, each module delivers global safety and reliability. A unified mechanical and electrical interface streamlines design, service, and integration, reducing complexity and accelerating time-to-market for OEM energy-storage solutions.

	PAR-106	PAR-160	PAR-210	PAR-266	PAR-318	PAR-372	PAR-426
							
Pack/Rack Configuration	104S1P (2 packs @ 52S1P)	156S1P (3 packs @ 52S1P)	208S1P (4 packs @ 52S1P)	260S1P (5 packs @ 52S1P)	312S1P (6 packs @ 52S1P)	364S1P (7 packs @ 52S1P)	416S1P (8 packs @ 52S1P)
Battery Chemistry	Lithium Iron Phosphate						
Nominal Energy Capacity	106 kWh	160 kWh	212 kWh	266 kWh	318 kWh	372 kWh	426 kWh
Usable Energy Capacity	104 kWh	157 kWh	209 kWh	261 kWh	313 kWh	366 kWh	418 kWh
Battery Max. Continuous Power	52 kW	79 kW	104 kW	131 kW	157 kW	183 kW	209 kW
Round-trip Efficiency	94% (25°C, 0.5C)						
System Nominal Voltage	332.8 V	499.2 V	665.6 V	832.0 V	998.4 V	1164.8 V	1331.2 V
System Operating Voltage	312 - 358.8 V	468 - 538.2 V	624 - 717.6 V	780 - 897 V	936 - 1,076.4 V	1,092 - 1,255.8 V	1,248 - 1,435.2 V
Nominal Cell Capacity	320 Ah						
Usable Cell Capacity	314 Ah						
Max. Continuous Current	157 A (C/2)						
Max. Operating Voltage Range	0.5C						
Internal Fuse Rating	315 A						

MECHANICAL SPECIFICATIONS

Estimated Product Dimensions - Pack&Rack (WxDxH)	1,220x1,220x600 mm	1,220x1,220x950 mm	1,220x1,220x1,220 mm	1,220x1,220x1,505 mm	1,220x1,220x1,765 mm	1,220x1,220x2,025 mm	1,220x1,220x2,285 mm
Estimated Weight	880 kg	1,240 kg	1,600 kg	2,120 kg	2,480 kg	2,840 kg	3,200 kg
Operating Temperature	-30°C to 55°C (-22°F to 131°F) - Using a Thermal Management System						
Storage Temperature	-20°C to 45°C (0°F to 110°F)						
Relative Operating Humidity	0-95% (non-condensing)						
Battery Ingress Rating	IP67 for Battery Pack / IP54 for High-voltage box						
Communications	CANBus | Modbus TCP/IP | Modbus RS485						
Certifications & Testing	UL1973, UL9540A, IEC62619, IEC61000, GB/T36276, UN38.3						

APPLICATIONS

High-Voltage DC Foundations. High-voltage DC building blocks using external DC/DC or DC/AC conversion.

Modular Microgrid & Industrial Blocks. Modular energy units for containerized micro grids, hybrid gensets, EV-charging buffers, and industrial peak-shaving systems.

High-Density Grid Support Storage. Dense storage for grid-tied or islanded systems for grid-forming or grid-support functions.

HV Packs for DC Bus Architectures. HV packs for DC bus architectures in power cabinets, traction support, and stationary power conversion.

Mission-Critical DC Power Subsystems. Scalable subsystems for UPS, data-center backup, telecom power, and other mission-critical DC uses.

FEATURES

High Energy Density, delivering maximum kWh per rack footprint.
Scalable Architecture to meet system-level power and capacity targets.

High Efficiency. Up to 95% round-trip efficiency for DC charge and discharge.

Integrated Fire Protection. Embedded suppression in packs and IO compatibility for external fire systems.

Flexible Communications. Supports PCS, SCADA, and EMS through CAN or Modbus interfaces.

Long Service Life. Engineered for a 20 year design life with simplified maintenance.

13711 International Pl Unit 320,
Richmond, BC, V6V 2Z8, Canada

+ 1.604.242.0350

info@discoverenergysys.com

discoverenergysys.com