Prevalon™
Battery Energy Storage Platform

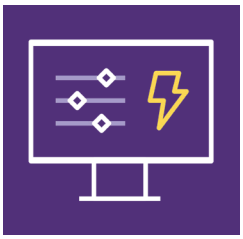
PREVALON
A Mitsubishi Power Americas and EES Joint Venture

Prevalon HD5™ | Data Center Integrated Platform: High-Density

The Prevalon HD5 | Data Center Integrated Platform is designed for seamless integration and high performance in data centers. Fully assembled and customizable, it delivers high energy density, robust safety, top-tier cybersecurity, and scalable capacity. Supporting both standalone and hybrid applications, it enhances reliability, optimizes costs, and ensures uninterrupted operations.

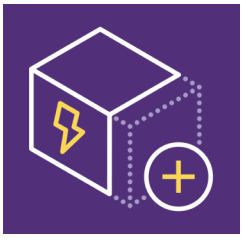
Dense, Modular, Scalable

With 360 MWh per acre, the HD5 | Data Center maximizes power in minimal space—ideal for data centers. Its modular design scales from MWh to GWh, supporting two to eight-hour deployments. A liquid-cooled LFP battery module delivers 5 MWh per 20-foot enclosure, ensuring reliable power for backup, peak shaving, and demand management.



Unmatched Reliability & Security

The HD5 | Data Center meets top standards in quality, safety, and cybersecurity. Pre-assembled and factory-tested, it ensures quick installation and integration. Prevalon's insightOS™ Energy Management System (EMS) offers real-time monitoring, optimizing power flow and complying with strict cybersecurity protocols. From voltage stabilization to black start, the HD5 | Data Center enhances data center resilience.



Optimized for Standalone & Hybrid Applications

The HD5 | Data Center operates as a standalone energy solution or within hybrid systems, offering flexibility for evolving data center needs. It delivers instant backup power, peak shaving, and voltage stabilization, ensuring uninterrupted operations and cost savings. When integrated with renewables and thermal assets, it optimizes efficiency and reliability. With built-in augmentation strategies, the HD5 | Data Center supports seamless AC and DC expansion, enabling data centers to scale energy storage as demand increases.

Prevalon HD5 | Data Center Integrated Platform Specifications

	2 hr. - 8 hr. Applications		
Project Energy Density	>= 360 MWh per Acre (890 MWh per hectare)[1]		
MVT Voltage	12 - 34.5 kVAC		
Inverter AC Voltage	690 VAC for 5,000 kVA		
DC Voltage Range	1,040 - 1,500 VDC for 5,000 kVA		
Rated AC Power (Charge and Discharge)	5,000 kVA		
Nameplate DC Energy Capacity per Power Conversion System (PCS)	2 hr. / 0.5C = 10MWh	4 hr. / 0.25C = 20MWh	8 hr. / 0.125C = 30 MWh
Auxiliary Power Configuration	480V 3P5W (ANSI) / 400V 3P3W (IEC)		
Battery Enclosure Cooling Type	Liquid cooling with central chiller		
Battery Enclosure Explosion Detection and Prevention	Detection and ventilation system compliant with NFPA69		
Cycle Life	> 8,000 full cycles to 65% SOH		
Rated Lifecycle	20 Years		
Cell Chemistry	314Ah Lithium Iron Phosphate (LFP)		
Batery Enclosure Weight (each)	≤44,000 kg		
Battery Enclosure Dimensions (each)	20’ L x 8’ W x 9’5” H (6058*2438*2896mm)		
Inverter-MVT skid Weight	16,500 kg		
Inverter-MVT skid Dimensions	20’ L x 8’ W x 9’5” H (6058* 2438*2896mm)		
Ambient Operating Temperature Range	-30°C to 50°C		
Standards Compliance	UL1973, UL9540A ed4, UL9540, UL1741, IEEE1547, UN38.3, NFPA855, NFPA70		
Transportation	20 ft. ISO enclosure format. DC block shipped fully populated with battery modules. Inverter-MVT skid arrives fully assembled.		
Seismic	Compliant with IEEE 693 Moderate with option for High Seismic Level		
Monitoring and control	Built in BMS and Inverter-MVT skid monitoring platform providing thermal management control, failure detection, and monitoring of broad range of parameters. TCP/IP based interface with EMS (copper or fiber)		
insightOS (EMS)	Cabinet-mounted Power Plant Controller, HMI, Data Historian, and networking equipment required to integrate and operate the Energy Storage System		
Grid Support Functions	Frequency-Watt, Volt-Watt, Volt-Var, Watt and Var ramp rate and power control, H/L Voltage/ Frequency Ride through		
Applications	Microgrid, Black Start, Grid Forming, Energy Shifting, Ancillary Services, Renewables Integration, ESS plus Solar/Wind, and Data Center Backup & Peak Load Management.		

Specifications in the above table are design estimates only and are not guaranteed. Contact Prevalon for a project-specific estimate as final values depend on system design, location, and use case.

1. The project energy density represents the fully installed AC System including inverter-MVT, auxiliaries and includes augmentation for an assumed 7,300 cycle life.