

HISbatt

■ storage system

HISbatt Powerpack 800V

All-in-one battery storage system for 800 V energy projects



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One system. Less complexity. Faster value creation.

HISbatt Powerpack 800V AIO is a fully integrated, containerized battery storage system for direct AC connection to 800V infrastructures in modern energy projects.

The system was specifically developed to minimize planning and integration costs, significantly shorten project durations, and tap into revenue potential more quickly – from installation to active participation in energy markets.

By eliminating additional transformation stages, the HISbatt Powerpack enables efficient, robust, and economical integration into new and existing PV and hybrid systems.

HISbatt Applications



Hybrid PV parks
(PV + storage)



Optimization
of existing
PV infrastructures



Network
services
(e.g., aFRR)



Energy arbitrage
(day-ahead & intraday)



Load management &
system stabilization

Your advantages

- +** **Direct 800 V integration**
Seamless AC connection to existing 800 V structures significantly reduces infrastructure and engineering costs.
- +** **All-in-one plug-and-play system**
The battery, inverter, and energy management system (EMS) are fully preconfigured and integrated into a 20-foot container—for fewer interfaces and maximum project reliability.
- +** **Reduced system costs and losses**
A smaller number of components lowers BOS costs, minimizes energy losses, and simplifies maintenance and operation.
- +** **Faster project implementation**
The factory-tested complete system enables short installation and commissioning times.
- +** **Immediate revenue generation**
Direct access to arbitrage and grid services markets without time-consuming grid modifications.
- +** **Powerful and scalable**
Up to 3,344 kWh storage capacity and 1,600 kW power for demanding utility-scale applications.
- +** **Intelligent energy management**
The integrated HIS-EMS enables dynamic operations management, remote monitoring, and automatic optimization of storage usage.
- +** **Modular multi-inverter system for maximum availability**
Four to eight independent inverter and battery units ensure high operational reliability. If one unit fails, the total output is reduced only proportionally (e.g., 1/8), while the rest of the system continues to operate without restriction – for significantly increased technical availability.

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HIS

Battery system

Battery rack model	HISbatt-3344-08-08-C05-L
Installed capacity	1672 - 3344 kWh (modularly configurable)
Battery modules per container	32 - 64 (depending on configuration)
Battery module model	HIS-MOD-52-1P52S-C05-L
Battery cell model	CALB 314 Ah
Battery cells per module	52
Battery voltage range	1,040 - 1,498 V
C-rate (charging/discharging)	0.5 C / 0.5 C
Cycle life	8,000 cycles 90% DoD usable 70% EoL
Battery management system	HIS-BMS (3-level safety)
Cooling principle (battery)	Liquid-cooled

Inverter

Battery inverter model	CPS ECB200KTL
Number of Inverters	4 - 8 (modular)
AC rated output power	800 - 1,600 kVA
AC rated voltage	800 VAC, 3-phase
Max. AC output current @ 800 Vac	580 - 1,160 A
Grid frequency	50 Hz (± 5 Hz)
Power factor	-1 ~ +1
Maximum total harmonic distortion	< 3% at rated power
Max. efficiency	98%
DC voltage range during operation	950 ~ 1,500 V DC

Energy Management System

Main controller	HISenergy Controller
Control software	HISenergyflow
Applications	Direct marketing, arbitrage, grid services (e.g., aFRR), peak load capping, self-consumption optimization, multi-use
External communication interfaces	Ethernet / Modbus RS 485

Safety & Protection

Battery (DC)	DC fuse and DC load break switch
DC overvoltage protection	Type II
Ground fault monitoring	Yes
Insulation monitoring	Yes
Fire protection system	Independent aerosol fire suppression system
Sensors	Smoke, CO, H2, temperature, humidity, water leakage

Operating conditions

Operating temperature (ambient)	-30 °C to 55 °C
Storage temperature	-30 °C to 60 °C
Recommended storage (> 1 month)	0 °C to 35 °C (30-50 % SoC)
Safety certifications	IEC 62619, UL9540A (cell), EC 62477-1:2012
EMC certificates	IEC 61000-6-2, IEC 61000-6-4
Design life (rated conditions)	20 years

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