EVES

Battery Assisted EV DC Charger

In an era defined by the explosive growth of electric vehicles and the simultaneous challenges of urban grid upgrades, Senergy's* Intelligent All-in-One Energy Storage and Charging System emerges as the definitive solution. Going beyond merely providing fast and ultra-fast charging services, we seamlessly integrate core energy management directly into the charging ecosystem, upgrading every station into an active smart microgrid node. Our mission is to deliver an ultra-fast charging experience for drivers while creating unprecedented economic and social value for both operators and the utility grid. The system is engineered to mitigate grid impact, enable robust peak-shaving and load-shifting, offer versatile deployment options, and feature cutting-edge immersion liquid cooling technology.

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All-Scenario Application & Dynamic Protection

Economic Priority Mode: Automatically charges the energy storage system during off-peak hours and discharges it to power the EV chargers during peak hours, achieving maximum cost optimization.

Charging Priority Mode: Prioritizes charging output during peak demand periods to ensure high charging power, maximizing user satisfaction and service revenue.

Seamless Off-Grid Transition: Automatically switches to battery power within milliseconds during grid anomalies, ensuring the continuous operation of the EV charging system with ultra-high reliability.

Real-Time System Monitoring: Continuously monitors the power status of the utility grid, energy storage, and EV chargers in real time, dynamically adjusting them via a core proprietary algorithm.

Grid Demand Limit Protection: Automatically increases energy storage discharge to prevent power consumption from exceeding grid contract capacity, avoiding hefty demand charges and penalties.

Smart Anti-Reverse Flow Control: Strictly restricts grid feed-in within the permitted regulatory range to ensure compliance and absolute grid safety.

Premium Safety & Deep Protection

Cell-to-System Protection: Utilizes ultra-safe Lithium Iron Phosphate (LFP) cells paired with AI-driven early warnings and a multi-tiered fire safety system (Detection, Prevention, Suppression, and Isolation).

Comprehensive Electrical Safeguards: Equipped with an extensive suite of protections, including over/under voltage, overcurrent, over/under frequency, overtemperature, and continuous insulation monitoring.

Robust Enclosure Ratings: Features an IP67-rated battery system and an IP54-rated charging infrastructure, built to withstand extreme and harsh environmental conditions.

Ultimate Compatibility & Seamless User Experience

Multi-Standard Compatibility: Supports all major global charging standards, including CCS (CCS2 for Europe/South America), CHAdeMO, and GB/T, up to demand.

Ergonomic Cable Management: Features a spring-loaded vertical retraction system that prevents cables from dragging on the ground, minimizing wear and keeping the site tidy.

Open Protocols: Native support for OCPP 1.6J / OCPP 2.0.1, ensuring frictionless integration with any third-party charging management platform.

Ultra-Low Standby Consumption: Modular architecture allows unused power modules to drop to zero idle draw, keeping the entire system's standby power under 30W for maximum energy efficiency.

Beyond Fast—Intelligent

Deep Integration of Storage & Charging: Intelligent control driving the convergence of battery tech and EV charging.

Grid Transformation: Upgrading charging stations from passive energy consumers to active smart microgrid nodes.

Grid-Friendly Integration: Serving as a "model citizen" for the utility grid by delivering robust peak-shaving, relieving distribution pressure, and supporting grid stability.

Optimized ROI: Driving profitability through time-of-use (ToU) arbitrage and capacity management, drastically lowering OPEX while reducing initial grid-upgrade CAPEX.

Guaranteed Charging Continuity: Assuring drivers a reliable, predictable, high-power charging experience, keeping vehicles powered even during grid strain or rolling blackouts.

Technical Specifications

EVES-240-520

Item	Parameters	Item	Parameters
Charging Power	240 kW	Battery Cooling	Immersion liquid cooling
Charging Modules	6 x 40 kW	System Cooling	Air cooling
Output Voltage Range	200-1000 Vdc	Enclosure Protection	Charger IP54 / Battery IP67
Max. Output Current	300 A	Dimensions (WxDxH)	3303 x 1300 x 2250 mm
Connectors	CCS2, CHAdeMO, GB/T, NACS optional	System Weight	6,510 kg
Input Power Supply	3-phase + N + PE	Touchscreen	43-inch HD
Grid System	TN-S	Payment Terminal	NAYAX (optional)
Input Frequency	50 Hz	Protection / IK	Screen IK8 / Terminal IK8
AC Input Voltage	400 V (-15% to +10%)	Operating Temperature	-20°C to +40°C
AC Input Power	125 kW	Communication	OCPP backend / remote diagnostics
Battery Cell Type	LFP	OCPP Protocol	1.6J; upgradeable to 2.0.1
Battery Voltage	650-949 Vdc	Battery Pack	52.25 kWh / 1P52S
Battery Capacity	520 kWh	Pack Quantity	5 packs
Battery Cabinets	2	Battery Cooling Unit	5 kW chiller
Discharge Rate	≤0.5P	Battery Pack Protection	IP67
Cycle Life	≥ 6,000 cycles @ 25°C, 0.5P, 80% DOD, 80% EOL	Cell Chemistry	314 Ah LFP