



PRODUCT OVERVIEW

GridLink by XCharge incorporates an Energy Storage System (ESS) that utilizes Li-ion batteries as energy storage devices. Equipped with both a local and remote Energy Management System (EMS), GridLink enables operators to take advantage of the benefits of peak shaving, and greater flexibility in ancillary grid services through its bidirectionality. The integration of the ESS allows for high power charging output with significantly less input requirements. GridLink features a sleek, thin-walled design suitable for various applications including parking lots, commercial centers, EV experience centers, fleet depots, and more. GridLink is built with serviceability and flexibility, offering easy access for servicing and maintenance. 22kW bidirectional air cooled modules allow for greater efficiency and resilience.

GridLink also features Plug and Charge and Charge Scheduling functionality for operators.

Use Cases

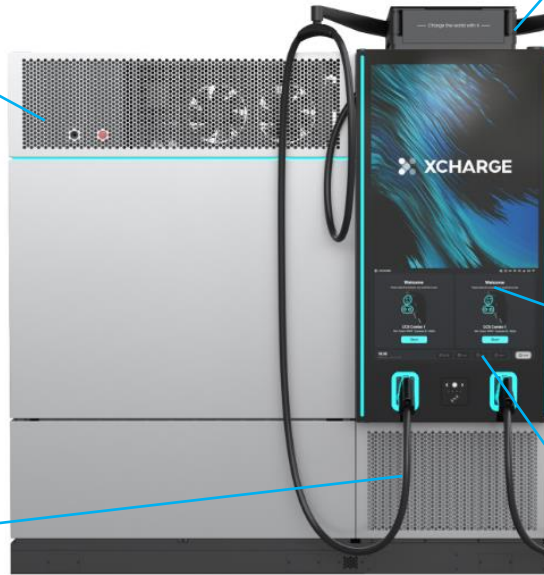
- Power-constrained areas
- Convenience stores/Gas stations
- Interstate charging
- National parks
- Commercial centers
- Fleet depots
- Hospitals
- Rural regions

Key highlights

- Compact Design
 - Small footprint
 - Thin-walled design
 - Designed for easy deployment in parking lots.
 - Modular design to fit unique install requirements.
- High Power Output with Less Input
 - Charging power can be modularly increased up to a total of 194kW output (44kW from grid + 150kW from energy storage system) and tailored to the infrastructure constraints given (refer to adaptive power capability table)
- Battery-to-Grid Functionality
 - Two 22kW bidirectional AC/DC power modules.
 - The battery can intelligently provide power to the grid, building, or other ancillary installations on the same circuit.
- Off-grid functionality
 - The system is designed to function flawlessly, even during blackouts or brownouts that cut energy supply. This provides an uninterrupted charge session in the most challenging of grid scenarios.
 - GridLink can provide energy to any local AC load such as a building or other critical equipment during a blackout period.
- Photovoltaics Functionality
 - PV direct integration up to 30kW
 - External DC/DC power module with MPPT function

Core Features

Flexible combination with up to 430kWh **lithium-ion battery ESS** (2x215 kWh)
Integrated LED system shows battery capacity and charging status



In-house developed smart cable management system

Supports OCPP 1.6 and OCPP 2.0.1
Support ISO15118 PnC function

55-inch LCD screen for advertising and user interface

Up to 194kW output at whisper silent noise levels.

250A CCS1 or NACS connector

TECHNICAL SPECIFICATIONS

Energy-storage-system integrated compact charging station 194KW+200KWH (ESS extendable)			
Basic Parameter	Product Specification	Type	DC charging station
		Dimension (w*d*h)	GridLink 7.34 * 3.24 * 7.72 ft
		Cable management and metal base is included	GridLink XL 12.05 x 3.24 x 7.72 ft
		Installation	Floor type
		Material	Industrial Grade Alloy
		Color	Silver
	Weight	7,936 lbs	
	Energy-storage-system	Cell Type	LFP L280K

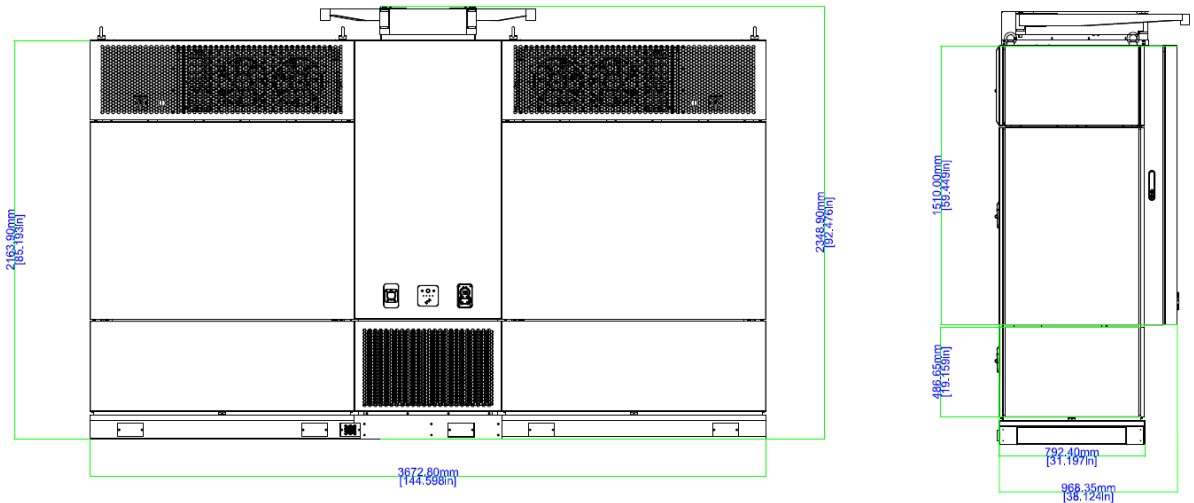
		Rated Energy	215kWh/2*215kWh
		Usable Energy (SAT)	205 kWh/2*205kWh
		Max. recharge Power	22kW/44kW
		Battery charging Rate	≤0.6C
		Battery discharge Rate	≤1C
		Battery Efficiency	≥94.5% under nominal situation
	Charging system	Connectors	2
		Charging power	DC Max. 194 kW
		Power distribution	2 connectors intelligent distribution
		Charging voltage	300V~1000V
		Efficiency	≥96.5%
	Meter	AC side	AC meter
		DC side	2-access DC meter
	Cooling system	Battery cooling	Liquid-cooled
		Power modules	Air-cooled
		Cable cooling	Air-cooled
Fire suppression system	Water		
Payment System	RFID, credit card		
Connectivity	GSM & LTE & LAN		
Communication	OCPP 1.6J & OCPP 2.0.1		
Environment parameter	Applicable site	Outdoors	
	Ambient temperature	-13°F to 131°F	
	Humidity	≤95%, No condensation	
	Altitude	≤6562 ft	
	EMC Emission	Class A	
	Medium	No explosive hazard, No toxic & harmful gases.	
	Interference	No strong vibration and shock, no strong electromagnetic interference	
	AC side Voltage	3 phase 480V _{AC} +/- 10%	
Input, Output	Input Frequency (AC)	60Hz	
	DC Voltage Range	200VDC-1000VDC	
	DC Constant-power voltage range	300VDC-1000VDC	

	Nominal power output (Rectifying Mode)	194 kW
	Nominal power output (Off-Grid Mode)	150 kW
	Nominal power output (TO-Grid Mode)	44 kW (including Auxiliary power consumption)
	DC Current output	Max. 250A CCS1 or NACS continuously
	Photovoltaics	Input voltage range: 300-825 VDC Max Power input: 30 kW
Additional function	Off-grid Function	Able to charge EV during blackouts. Able to provide energy to an AC load during blackouts
	IP ranking	IP54
Safety	Safety protection	Input protection, Overcurrent protection, Lightning protection, Over-temperature protection, output over-voltage protection, fan protection, short circuit protection, Emergency button, Flood protection, Ground protection, Dumping protection, Smoke protection, on-board fire suppression
	Battery	UL1642(cell), UL1973A, UL 9540A
Standard	System	UL9540, UL2202, UL2231-1, UL1973, FCC part15B and ICES-003
	B2G	UL 1741
		Photovoltaic UL 1998, UL991, UL1699B

Adaptive Power Capability Table

GridLink includes an adjustable power output function, allowing it to adapt to a site's power availability without requiring any hardware changes. This flexibility supports safe and reliable operation even in lower power environments and can be reconfigured as a site's power capacity evolves over time. The power output can be adjusted via the XCharge backend or a firmware tool during commissioning or servicing.

Input Current @ 480V (A)	Breaker Size @ 480V (A)	Battery Augmentation (kW)	Maximum Charging Capacity (kW)	Battery Recharge Time (0-100%)
15 A	20 A	150 kW	160 kW	17 hours 12 minutes
25 A	30 A	150 kW	170 kW	10 hours 18 minutes
50 A	60 A	150 kW	180 kW	5 hours 12 minutes
65 A	80 A	150 kW	194 kW	4 hours 0 minutes



GridLink XL