



Energy Storage System

*Forge ahead with innovation,
strive for excellence.*

ESS Products

500KW/299KWH ESS



Application Scenarios



Model: ESS299-01

Advantages

Supports 2C discharge rate

Delivers 120% overload for 20s in off-grid mode, ensuring stable startup of heavy loads

Offers flexible control for weak grid and genset-hybrid scenarios, reducing investment costs

Smart remote control, - all in one platform

Supports AC coupling for flexible retrofits and system expansions, multi-unit parallel operation up to 2000kW

Ensures reliable backup power across diverse scenarios through battery reserve management

Extends supply time for critical loads with intelligent load prioritization

Achieves on- and off-grid transitions in less than 10ms, ensuring an uninterrupted power supply

125KW/261KWH ESS specification Model: ESS299-01

Battery	
Battery capacity	299KWH
Battery material	LiFePO4
Number of battery racks	3
BMS communication interface	RS485/CAN
DC voltage range	672-864VDC
Max DC current	260A
DOD	90%
Working Temperature	Charging: 0~50°C
Cooling mode	air cooling
Output AC (ON-grid)	
Rated AC power	500KW
Max. apparent output power	1.2 times for 1min
Rated grid voltage	380 (-15%~15%) Vac
Rated grid frequency	50/60Hz
Power factor	> 0.99 (0.8 leading - 0.8 lagging)
THDi	< 3%
Input AC (ON-grid)	
Max. AC passthrough current	760A
Rated input voltage	3/N/PE, 380V
Rated input frequency	50/60Hz

Output AC (Back-up)	
Rated output power	500KW
Max. apparent output power	1.1 times long-term / 1.2 times for 20s /
Back-up switch time	<20ms
Rated output voltage	380 (-15%~15%) Vac
Rated frequency	50/60Hz
Max. imbalance power per phase	100%
THDv (@linear load)	< 3%
Efficiency	
Max. efficiency	97.20%
Battery efficiency	97%
protection	
Protection degree	IP54
Ground fault detection	yes
Integrated AFCI	Yes
DC reverse-polarity protection	Yes
Grid AC switch	Yes
Load Switch	Yes
Rapid shutdown (EPO)	Yes
Fire fighting system	Yes
General information	
Topology	Transformerless
Working Temperature	-20°C~+60°C
Dimension(W*D*H)	
Weight	
Communication mode	Modbus RUT,RS485, CAN , TCP/IP
Max. altitude	4500 m (derated over 2000m)
Relative humidity	0-95% non-condensing