



High voltage energy storage system

Product model
CL-L7-3P(12-24)K-EU-H

Product Features

High Efficiency

High power density
low cost
High charge and discharge Efficiency
Digital remote monitoring
Four PV inputs

Safe and Reliabe

Support lithium battery
Low temperature heating function
Built-in fire module
Protection:Over Temperature,
Over Load,Over Voltage,
Over Current,Short circuit
protection

Easy to Use

Easy Installation
Easy Configuration

Battery specification



Performance	CL-JC-ES-EU-H-S0 x1 CL-BL-5.2-EU-H-S0 x1 CL-BD-B-S0 x1	CL-JC-ES-EU-H-S0 x1 CL-BL-5.2-EU-H-S0 x2 CL-BD-B-S0 x1	CL-JC-ES-EU-H-S0 x1 CL-BL-5.2-EU-H-S0 x3 CL-BD-B-S0 x1
Normal Voltage(VDC)	400		
Operating Voltage Range(V)	330--450V		
Capacity(Ah)	100	200	300
Battery Nominal Capacity(kWh)	5.12	10.24	15.36
Max.Output Power(W)	5000	10000	15000
Max.Input Power(W)	5000	10000	15000
Maximum Charging Current(High Voltage Side)(A)	12	24	36
Maximum Discharge Current(High Voltage Side)(A)	12	24	36
Maximum Charging Current(Battery Side)(A)	100	200	300
Maximum Discharge Current(Battery Side)(A)	100	200	300
Charging Voltage (High Voltage Side)(V)	442.4		
Discharge Cut-off Voltage (High Voltage Side)(V)	347.6		
Charging Voltage (Battery Side)(V)	56		
Discharge Cut-off Voltage (Battery Side)(V)	44		
Battery Cell Type	LFP		
General Data			
Ingress Protection	IP65		
Opreating Temperature(℃)	-20 to 60		
Relative Humidity	20% to 95%(Non-condensing)		
Max. Operating Altitude(m)	3000		
Cooling Method	Natural converction		
Active Aerosol Fire prevention Module	Integrated		
Low temperature heating function	Integrated		
Net Weight(kg)	90	155	221
Dimension(WxDxH)(mm)	730*660*240.5	730*1000*240.5	730*1340*240.5
Installation	Floor stand		
Noise Level(dB)	≤40		
Compliance			
Certificates	CE		
Safety Standard	EN62619		
Delivery Standard	UN38.3 MSDS		
EMC	EN61000-6-1		

Hybrid Inverter specifications

CL-L7-3P(12-24)K-EU-H					
Product Model	12K	15K	18K	20K	24K
DC Input					
Recommended maximum PV module power	24kW	30kW	32kW	40kW	40kW
Maximum available PV input power	19.2kW	24kW	28kW	30kW	30kW
Maximum input voltage	1000V				
Rated input voltage	600V				
Starting voltage	120V				
MPPT voltage range	120-850V				
Maximum input current	4x16A				
Maximum input short-circuit current	4x20A				
Number of MPPT/Maximum number of input group routes	4-4				
Battery					
Battery type	LFP				
Battery voltage range	120-600V				
Maximum charge/discharge power	12kW	15kW	18kW	20kW	24kW
Maximum charge/discharge current	50A				
Communication mode	CAN				
AC Output (Grid Side)					
Rated output power	12kW	15kW	18kW	20kW	24kW
Maximum output apparent power	12kVA	15kVA	18kVA	20kVA	24kVA
Rated network voltage	3/N/PE,220V/380V,230V/400V				
Rated network frequency	50Hz/60Hz				
Rated grid output current	18.2A/17.3A	22.8A/21.7A	27.3A/26A	30.4A/28.9A	36.5A/34.6A
Maximum output current	18.2A/17.3A	22.8A/21.7A	27.3A/26A	30.4A/28.9A	36.5A/34.6A
Power factor	>0.99				
Total current harmonic distortion rate	<30%				
AC Input (Grid Side)					
Input voltage range	304-418/320-440V				
Maximum input current	23.9A/22.8A	29.9A/28.5A	35.9A/34.2A	39.9A/38.0A	47.9A/45.6A
Rated network frequency	50Hz/60Hz				
Frequency range	45-55Hz/55-65Hz				
Generator Input (optional)					
Maximum input power	12kW	15kW	18kW	20kW	24kW
Maximum input current	18.2A/17.3A	22.8A/21.7A	27.3A/26A	30.4A/28.9A	36.5A/34.6A
Rated input frequency	50Hz/60Hz				
AC Output (Off-Grid Side)					
Rated output power	12kW	15kW	18kW	20kW	24kW
Maximum output apparent power	12kW: long-term operation at 1.05 times power; Support 5S output 1.05 times --1.1 times Rated Power; Support 300ms output more than 1.1 times the Rated Power; 15/18/20/24kW: long-term operation at 1.05 times Power; Support 300ms output greater than 1.01 times Rated Power;				
And off-grid switching time	<10ms				
Rated output voltage	3/N/PE,220V/380V,230V400V				
Rated frequency	50Hz/60Hz				
Rated output current	18.2A/17.3A	22.8A/21.7A	27.3A/26A	30.4A/28.9A	36.5A/34.6A
Total voltage harmonic distortion rate	<3%				
Efficiency					
Maximum efficiency	97.7%				
European efficiency	97.5%				
PV Maximum charging efficiency	98.5%				
Maximum charging and discharging efficiency of a battery	97.2%				
Protection					
Island protection	Integrated				
AC output overcurrent protection	Integrated				
AC short circuit protection	Integrated				
DC arc fault protection	Optional				
Integrated DC switch	Integrated				
DC reverse protection	Integrated				
PV overvoltage protection	Integrated				
Battery reverse protection	Integrated				
Basic Parameter					
Maximum three-phase unbalanced carrying capacity	100%				
Maximum single-phase carrying capacity	33% Rated Power				
Dimensions (W x H x D)	410*546*255mm				
Weight	28kg				
Topology	No transformer				
Electricity consumption at night	<25W				
Ambient temperature/humidity	>40℃ ,Derated use				
Protection Level	IP65				
Noise Emission (typical)	12/15KW(<35dB);18/20/24KW(<55dB)				
Cooling Mode	12/15KW (naturally cooled); 18/20/24KW (Intelligent air cooling);				
Maximum working altitude	Maximum altitude 4000m, derating above 2000m (1% for every 100m rise)				
Authentication					
Certificate	TUV/CE Mark				
Grid connection standard	VDE-AR-N-4105				
Safety /EMC standards	IEC/EN 62109-1/-2,IEC/EN 61000-6-1/-2/-3/-4				
Peculiarity					
PV port	MC4 connector				
Battery port	Integrated				
AC port	Integrated				
Display screen	7 Inch LCD Display, Bluetooth +APP				
Communication mode	RS485/ Ethernet /Wi-Fi(Optional)				