



POWERING **PROGRESS,**
ENERGIZING **LIVES**

ALL-IN-ONE compatible
BATTERY + INVERTER for solar



**ALL-IN-ONE
SOLUTIONS**



ALL-IN-ONE SOLUTIONS

01. All-in-One: Residential

02. All-in-One: Commercial & Industrial

ALL IN ONE: RESIDENTIAL SERIES

All In One: Residential Series

01

All In One: Residential Series

Reliable Power for Smart Homes

The CLN All-in-One Home Series is an intelligent energy storage solution designed to provide dependable backup power for modern homes. Integrating a high-efficiency inverter with advanced lithium battery technology in a compact, plug-and-play design, it ensures uninterrupted power during outages while maximizing energy utilization. Built for reliability, safety, and ease of use, the Home Series delivers peace of mind with seamless performance and long service life.



Product Features



Integrated Inverter with modular lithium battery storage.



6,000+ Life Cycles for long-lasting performance and exceptional reliability.



Smart Mobile App for real-time monitoring and control.



Multiple Charging Options via Solar PV and Grid.



Comprehensive Safety Protection against overload, short circuit, over-voltage, under-voltage, overheating, and battery faults.



Compact Plug-and-Play Design for quick installation and minimal space requirements.



Low Maintenance & High Efficiency for hassle-free operation.

Technical Specifications

MODEL	CLN-RESS-5kW-10kWh	CLN-RESS-5kW-15kWh	CLN-RESS-10kW-16kWh	CLN-RESS-10kW-32kWh
Capacity	5kW/10kWh	5kW/15kWh	10kW/16kWh	10kW/32kWh
Maximum PV Input Power	9kW		10kW	
Maximum Main Output Power	5000VA/5000W		10000VA/10000W	
Maximum Second Output Power	5000VA/5000W		5000VA/5000W	
Maximum Total Output Power	5000VA/5000W		10000VA/10000W	
Parallel Capability	NO		Yes, 6units	
Lithium Battery activation	Yes(By PV or Utility)			
Lithium Battery communication	Yes(RS485)			
WIFI	Optional			
AC INPUT				
Nominal Voltage	230VAC			
Acceptable Voltage Range	170-280VAC(For Personal Computer);90-280VAC(For Home Appliances)			
Frequency	50/60 Hz (Auto Sensing)			
AC OUTPUT				
Nominal Voltage	220/230VAC±5%		220/230/240VAC	
Surge Power	10000VA		20000VA	
Frequency	50/60 Hz			
Waveform	Pure Sine Wave			
Dual Outputs	Yes			
Transfer Time	<10ms			
Peak Efficiency	94%			
Overload Protection	5s@ > =140% load; 10s@100%~140% load			
Admissible Power Factor	0.6~1 (Inductive or Capacitive)			
BATTERY				
Battery Voltage	51.2VDC			
Battery Capacity	2*100Ah	3*100Ah	314Ah	2*314Ah
Battery Energy	10kWh	15kWh	16kWh	32kWh
High Voltage Cut-off	57.6VDC		57.6VDC	
Low Voltage Cut-off	44.8VDC		44.8VDC	
Recommended Charge Current	0.3C		0.3C	
Max Charge Current	0.5C		0.5C	
Recommended Discharge Current	0.5C		0.5C	
Max Discharge Current	1C		1C	
Cycle Life at 25°C	6000		6000	
SOLAR CHARGER & AC CHARGER				
Solar Charger TYPE	MPPT		MPPT	
Max.PV Array Power	9000W		10000W	
Max. PV Array Open Circuit Voltage	500VDC		500VDC	
PV Array MPPT Voltage Range	60VDC~500VDC		60VDC~500VDC	
Max. Solar Input Current	1/27A		2/27A	
Max. Solar Charge Current	120A		160A	
Max. AC Charge Current	120A		120A	
Max. Charge Current	120A		160A	
ENVIRONMENT				
Operating Temperature Range	-10°C to 60°C			
Storage temperature	10°C~ 45°C			
Humidity	5% to 95% Relative Humidity (Non-condensing)			
Ingress Protection	IP21			
OTHERS				
Communication Interface	RS485(RJ45)/RS232(RJ45)		WIFI/RS485(RJ45)	

ALL-IN-ONE: C&I PRIME SERIES

All-in-One: C&I Prime Series

02

CLN All-in-One: C&I Prime Series

Intelligent Hybrid Energy Storage for Commercial Backup

The CLN All-in-One Prime Series is a low-voltage hybrid energy storage system engineered for commercial establishments seeking uninterrupted power, optimized energy consumption, and greater operational efficiency. Featuring an integrated hybrid inverter, advanced lithium battery technology, and intelligent energy management, it seamlessly balances power from Solar PV, Grid, and Diesel Generator (DG) to reduce energy costs while ensuring continuous business operations.



Product Features

-  **Integrated Hybrid Inverter** with Solar PV, Grid & DG compatibility.
-  **Low-Voltage Energy Storage Platform** for safe and efficient operation.
-  **DG Peak Shaving** to reduce fuel consumption and operating costs.
-  **Ultra-Fast Backup (<10ms)** for uninterrupted power to critical loads.
-  **6,000+ Life Cycles** backed by a 5-year warranty.
-  **Smart Remote Monitoring** with real-time diagnostics and performance insights.
-  **Advanced Thermal Management** for improved battery life and efficiency.
-  **Power Factor Correction (PFC)** for enhanced power quality.
-  **Integrated Aerosol Fire Suppression System** for advanced safety.
-  **IP54 Rated Enclosure** for reliable indoor and semi-outdoor operation.
-  **Compact Plug-and-Play Installation** for faster deployment.
-  **Grid Export / Feed-in Capability**

Technical Specifications

Model	CLN-PRIME-5kW-10kWh	CLN-PRIME-5kW-10kWh	CLN-PRIME-12kW-32kWh	CLN-PRIME-15kW-32kWh
Capacity	5kW/10kWh	10kW/16kWh	12kW/32kWh	15kW/32kWh
DC Side Parameter				
DC Bus Maximum Voltage	60V			
DC Side Maximum Current	112A	220A	250A	290A
DC Voltage Operating Range	40-60V			
AC Input (Grid Side)				
Maximum Input Power	7kW	15kW	18kW	22.5kW
Phase	Sinlge Phase	Three Phase		
Rated Input Voltage	187-253V	323-437V / 340V-460V		
Maximum Input Current	32A	22.8 A / 21.7 A	27.3A/26.0A	34.2 A / 32.5 A
AC Output (Grid Side)				
Rated O/P Power	5kW	10kW	12kW	15kW
Rated Grid Voltage	L/N/PE, 220 V / 230 V	3/N/PE, 220 V / 380 V; 3/N/PE, 230 V / 400 V		
Rated Grid Frequency	50/60Hz			
Rated Grid Output Current	22.8 A / 21.8 A	15.2 A / 14.4 A	18.2 A / 17.3 A	22.8 A / 21.7 A
Power Factor	>0.99 (0.8 leading - 0.8 lagging)			
AC Off-grid Parameter				
Rated O/P Power	5kW	10kW	12kW	15kW
Max. Apparent Output Power	2 times of rated power, 10s			
Back-up Switch Time	<10 ms			
Rated Output Voltage	L/N/PE, 220 V / 230 V	3/N/PE, 220 V / 380 V; 3/N/PE, 230 V / 400 V		
Rated Frequency	50/60Hz			
Rated Output Current	22.8 A / 21.8 A	15.2 A / 14.4 A	18.2 A / 17.3 A	22.8 A / 21.7 A
Solar				
Max PV Input Power	10kW	20kW	24kW	30kW
Max PV Input Voltage	500V	1000V		
Rated Voltage	330V	550V		
MPPT Voltage Range	90-435V	200-850V		
Max Input Current	16A/16A	20A/40A	20A/40A	40A/40A
MPPT number / Max. input strings number	2/2	2/3	2/3	2/4
Battery Parameter				
Cell Capacity	100Ah	314Ah	314Ah	314Ah
Rated Energy	10kWh	16kWh	32kWh	32kWh
DoD@25°C	90%	90%	90%	90%
Usable Energy	9kWh	14.4kWh	28.8kWh	28.8kWh
Nominal Voltage	51.2V	51.2V	51.2V	51.2V
Operating Voltage Range	44.8-57.6V	44.8-57.6V	44.8-57.6V	44.8-57.6V
Life Cycle @25°C	6000 Cycle	6000 Cycle	6000 Cycle	6000 Cycle
C-Rate	≤0.5C	≤0.5C	≤0.5C	≤0.5C
System Level Parameters				
HMI	Yes			
Cooling Method	Forced Air Cooling			
Round Trip Efficiency	>92%			
Ambient Temperature	-10°C to +50°C			
Protection Level	IP54			
Other Parameters				
Certification	Battery & Cell - CE, IEC62619, UL1973, UN38.3, MSDS, RoHS EC/EN 62109-1/-2, EN 61000-6-2/-3; Inverter - IEC/EN 62109-1/-2, IEC/EN 61000-6-1/-2/-3/-4			

CLN All-in-One : C&I Pro Series

High-Voltage Hybrid Energy Storage for Industrial Excellence

The CLN All-in-One Pro Series is a high-voltage hybrid energy storage solution built for demanding commercial and industrial applications. Equipped with a powerful hybrid inverter, advanced lithium battery technology, and intelligent energy management, it optimizes renewable energy utilization, minimizes diesel dependency, and delivers uninterrupted power for mission-critical operations. Its scalable architecture, robust safety systems, and industrial-grade design make it the ideal choice for businesses focused on energy efficiency and operational continuity.



Product Features

-  **Integrated High-Voltage Hybrid Inverter** compatible with Solar PV, Grid & DG.
-  **High-Voltage Energy Storage Platform** for large-scale power applications.
-  **DG Peak Shaving** to optimize energy costs and reduce diesel usage.
-  **UPS Grade Backup Power (<10ms)** for uninterrupted operation of critical loads.
-  **6,000+ Life Cycles** with a 5-year warranty.
-  **Advanced Smart Monitoring** with remote diagnostics and energy analytics.
-  **Uniform Thermal Management** for enhanced system efficiency and longevity.
-  **Power Factor Correction (PFC)** for superior electrical performance.
-  **Integrated Aerosol Fire Suppression System** for maximum operational safety.
-  **IP54 Rated Industrial Enclosure** for reliable performance in demanding environments.
-  **Scalable Architecture** to support growing energy requirements
-  **Grid Export / Feed-in Capability**

Technical Specifications

Model	CLN-CI-30KW-64KWh	CLN-CI-60KW-112KWh	CLN-CI-125KW-241KWh	CLN-CI-250KW-480KWh
Capacity	30KW/64KWh	60KW/112KWh	125KW/241KWh	250KW/480KWh
DC Side Parameter				
DC Bus Maximum Voltage	800V		950V	
DC Side Maximum Current	160A	168A	200A	2*200A
DC Voltage Operating Range	150-800V		300-950V	
AC Input (Grid Side)				
Maximum Input Power	60kW	100kW/105kW	164.5kW/173.2kW	2*164.5kW/173.2kW
Rated Input Voltage	304V-460V			
Maximum Input Current	91.2A/86.6A	152A/152A	250A	2*250A
AC Output (Grid Side)				
Rated O/P Power	30kW	60kW	125kW	2*125kW
Rated Grid Voltage	3/N/PE, 220 V / 380 V; 3/N/PE, 230 V / 400 V			
Rated Grid Frequency	50/60Hz			
Rated Grid Output Current	45.6A/43.3A	91.2A/86.6	189.9A/180.4A	2*189.9A/180.4A
Power Factor	>0.99 (0.8 leading - 0.8 lagging)			
AC Off-grid Parameter				
Rated O/P Power	30kW	60kW	125kW	2*125kW
Max. Apparent Output Power	1.6 times of rated power, 2 s; 1.5 times of rated power, 10 s		1.4 times of rated power, 10 s; 1.6 times of rated power, 200 ms	
Back-up switch time	<10 ms			
Rated Output Voltage	3/N/PE, 220 V / 380 V; 3/N/PE, 230 V / 400 V			
Rated Frequency	50/60Hz			
Rated Output Current	45.6A/43.3A	91.2A/86.6	189.9A/180.4A	2*189.9A/180.4A
Solar				
Max PV Input Power	60kW	100kW	250kW	2*250kW
Max PV Input Voltage	1000V			
Rated Voltage	600V			
MPPT Voltage Range	150-850V		150-950V	
Max Input Current	3*42A	4*42A	10*42A	2*10*42A
MPPT number / Max. input strings numbe	3/6	4/8	10/20	2*10/20
Battery Parameter				
Cell Capacity	314Ah	314Ah	314Ah	2*314Ah
Rated Energy	64kWh	112kWh	240kWh	480kWh
DoD@25°C	90%	90%	90%	90%
Usable Energy	57.6	101	216	432
Nominal Voltage	204.8V	358V	768V	768V
Operating Voltage Range	192-230.4V	336-403V	720-864V	720-864V
Life Cycle @25°C	6000Cycle	6000 Cycle	6000 Cycle	6000 Cycle
C-Rate	≤0.5C	≤0.5C	≤0.5C	≤0.5C
System Level Parameters				
HMI	Yes			
Fire Protection System	Aerosol based			
Cooling Method	Forced Air Cooling (HVAC)			
Round Trip Efficiency	>92%			
Ambient Temperature	-10°C to +50°C			
Protection Level	IP54			
Other Parameters				
Certification	Battery & Cell - CE, IEC62619, UL1973, UN38.3, MSDS, RoHS Inverter - IEC/EN 62109-1/-2, IEC/EN 61000-6-2/-4, EN 55011			

CLN Energy Ltd.

EGYPT | UAE | HONG KONG | CHINA | SINGAPORE

✉ business@clnenergyglobal.com

🌐 www.clnenergyglobal.com

     Follow us for more innovations