



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



**ALL-IN-ONE  
SOLUTIONS**





Continuously Innovating to  
**POWER A  
SMARTER WORLD**



## About us

CLN Energy Limited is a BSE-SME listed clean energy company specializing in advanced lithium-ion battery solutions for electric vehicles and energy storage systems. We serve diverse sectors including EV mobility, residential energy storage, Commercial & Industrial (C&I), telecom, and data centers with safe, reliable, and high-performance energy solutions.

Headquartered in Singapore with a growing presence across India, Middle East, Africa, Malaysia, and Hong Kong, CLN Energy is committed to driving the global energy transition through innovation, manufacturing excellence, and sustainable technology—powering a greener future, one battery at a time.

# 100+

Business Partners

# 200+

Distributor Network

# 800+

Workforce



“Switch to Lithium” reflects CLN Energy’s commitment to powering a cleaner, smarter future. As the world moves toward sustainable solutions, lithium stands out as the energy source of tomorrow—lightweight, efficient, and eco-friendly. This shift marks a move away from outdated technologies toward reliable, future-ready power systems that align with global energy goals.



## Powering Industries Across Globe

**Commercial  
& Industrial**

**Residential**

**Electric  
Vehicles**

**Telecom &  
Railways**

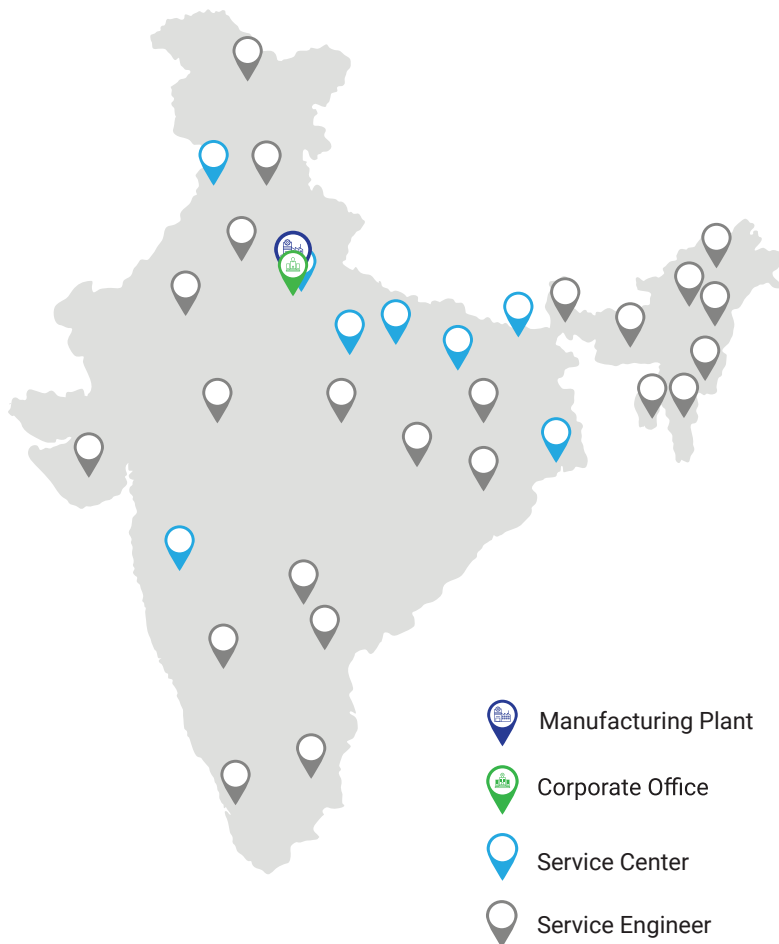
**Grid &  
Utility**

**Data Center**



# Pan India Sales and Service

Our extensive sales and service network spans to major cities across India, ensuring timely support wherever you are. With teams strategically positioned nationwide, we offer reliable after-sales service, maintenance, and technical assistance. Our customer-focused sales professionals understand local needs and recommend tailored solutions, while our experienced service team ensures quick response and minimal downtime. Count on us for dependable, personalized support—just a call away



Operational Facilities

**Noida: 50,000 Sqft**

Annual Production Capacity

**2 GWh+ Batteries**

Service Center

**Pan India  
Service Network**



# ALL-IN-ONE SOLUTIONS

**01. All-in-One: Home Series**

**02. All-in-One: Prime Series**

**03. All-in-One: Pro Series**

# ALL-IN-ONE: HOME SERIES

Home Series

01

# ALL-IN-ONE HOME

BATTERY + INVERTER 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                              | Home 5                                                           | Home 5 Max | Home 10          | Home 10 Max |
|------------------------------------|------------------------------------------------------------------|------------|------------------|-------------|
| 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    | 1*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: PRIME SERIES

Prime Series

02

## 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.



**UPS Grade Backup Power (<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                                   | Prime 5                                                                                                                                                 | Prime 10                                     | Prime 12        | Prime 15        |
|-----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|-----------------|-----------------|
| 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<br>EC/EN 62109-1/-2, EN 61000-6-2/-3; Inverter - IEC/EN 62109-1/-2, IEC/EN 61000-6-1/-2/-3/-4 |                                              |                 |                 |

# ALL-IN-ONE: PRO SERIES

03

**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                                  | Pro 30                                                                                                                   | Pro 60      | Pro 125                                                             | Pro 250           |
|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------|-------------|---------------------------------------------------------------------|-------------------|
| 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;<br>1.5 times of rated power, 10 s                                                         |             | 1.4 times of rated power, 10 s;<br>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<br>Inverter - IEC/EN 62109-1/-2, IEC/EN 61000-6-2/-4, EN 55011 |             |                                                                     |                   |





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