

# E-Mobility Product Range

Batteries and Chargers





Continuously Innovating to  
**POWER A  
SMARTER WORLD**



## About us

CLN Energy Limited is a BSE-SME listed company specializing in the design and manufacturing of advanced lithium-ion battery solutions. We power the future of clean energy with high-performance batteries for Electric Vehicles (EVs), Battery Energy Storage Systems (BESS) – including residential, commercial & industrial (C&I), telecom, and data center applications. Headquartered in Singapore, CLN Energy has a global footprint with teams operating across Malaysia and Hong Kong. Our two state-of-the-art manufacturing facilities in India enable us to deliver safe, scalable, and sustainable energy solutions that meet the highest international standards. Driven by innovation, backed by a global team of experts, and committed to environmental stewardship – we’re building the foundation for a cleaner and connected tomorrow.

**100+**  
Business Partners

**100+**  
Distributor Network

**380+**  
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 This shift marks a move away from outdated technologies toward reliable, future-ready power systems that align with global energy goals.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

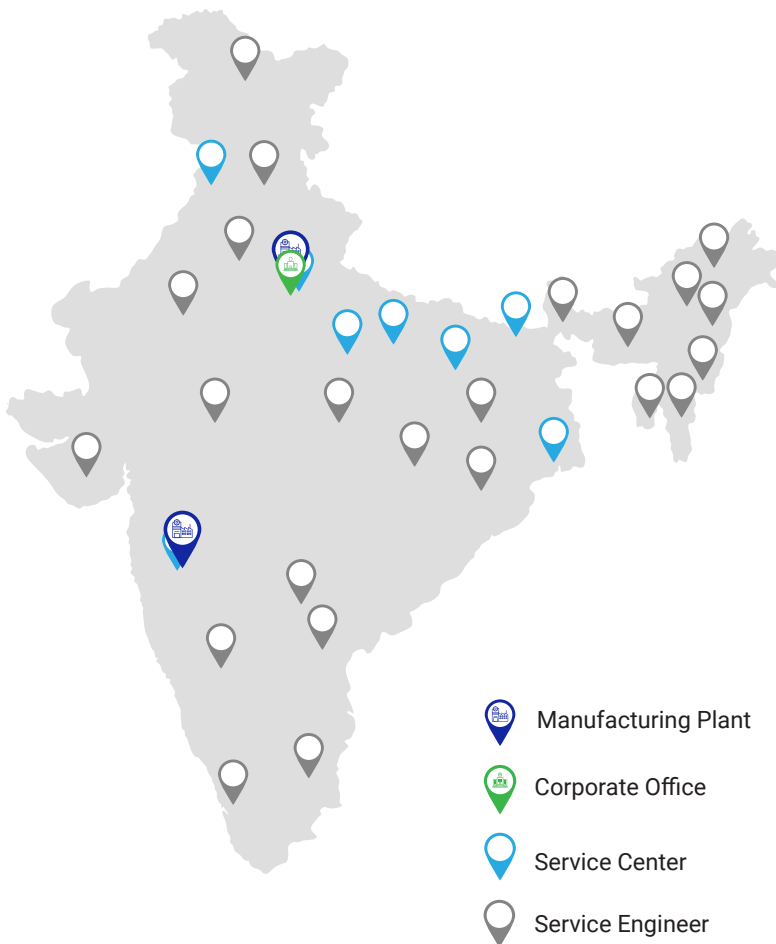
Grid &  
Utility

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: 42,000 Sqft**  
**Pune: 20,000 Sqft**

Annual Production Capacity

**2 GWh+ Batteries**

Service Center

**Pan India  
Service Network**



CLN Energy: Noida Plant



CLN Energy: Pune Plant

# E-Mobility Product Range



L3 Battery



L5 Battery



MHE Battery



Golf Cart Battery



IP67 Rated Chargers



IP20 Rated Chargers



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# Lithium Batteries

CLN Energy lithium-ion batteries for E-Rickshaw deliver exceptional performance, ensuring your vehicles run longer and more efficiently. With a higher energy density, they provide a longer driving range on a single charge compared to traditional lead-acid batteries. This means fewer stops to recharge and more time on the road, enhancing the productivity and profitability of your fleet.



## Key Features

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### High Mileage

Delivers 100+\* km per full charge under standard conditions.



### Mobile App Monitoring

Get real-time battery data on your smartphone.



### Fast Charging

Fully charges in 3 hours with a 30A charger.



### Long Lifespan

Up to 5 years of efficient performance



### Zero Maintenance

No regular upkeep needed, saving time and hassle.



### IoT-Enabled (On-Demand)

Track GPS, health, and control usage remotely.



### Superior Durability & Safety

IP 67-rated and fire-resistant for safe use.



(\* ICAT range with 1kW motor)

[www.clnenergy.in](http://www.clnenergy.in)



# L3 Battery

## Technical Specification

Model Name test	51.2V 105Ah	51.2V 125Ah	51.2V 150Ah	60.8V 105Ah	64V 105Ah
Category	L3	L3	L3	L3	L3
Nominal Voltage (V)	51.2	51.2	51.2	60.8	64
Capacity (Ah)	105	125	150	105	105
Chemistry	Li-FePO <sub>4</sub>	Li-FePO <sub>4</sub>	Li-FePO <sub>4</sub>	Li-FePO <sub>4</sub>	Li-FePO <sub>4</sub>
Maximum Cut-off Voltage (V)	57.6	57.6	57.6	68.4	72
Minimum Cut-off Voltage (V)	44.8	44.8	44.8	53.2	56
Charging Mode	CC-CV	CC-CV	CC-CV	CC-CV	CC-CV
Recommended Charging Current (A)	25	25	25	25	25
Maximum Charging Current (A)	30	40	50	30	30
Rated Discharging Current (A)	50	60	75	50	50
Cell Over Voltage Protection	Yes	Yes	Yes	Yes	Yes
Cell Under Voltage Protection	Yes	Yes	Yes	Yes	Yes
Over Current Protection	Yes	Yes	Yes	Yes	Yes
Short Circuit Protection	Yes	Yes	Yes	Yes	Yes
Temperature Protection	Yes	Yes	Yes	Yes	Yes
Working Temperature (°c)	0-55	0-55	0-55	0-55	0-55
Storage Temperature (°c)	10-35	10-35	10-35	10-35	10-35
Dimension (L x W x H) (mm)	433X322X288	480X343X252	610X322X289	505X322X289	713×225X287
Weight approx. (kg)	52	65	70	60	62
Power Connector	SB50/SBS75X	SB50/SBS75X	SB50/SBS75X	SB50/SBS75X	SB50/SBS75X

### Certification

AIS - 156 Amendment 3, Phase II Certified



# L5 Battery

CLN Energy lithium-ion batteries for E-Autos deliver exceptional performance, enabling electric autos to run longer and more efficiently. Designed for heavy-duty urban use, these batteries support fast charging, high safety standards, and real-time monitoring for fleet efficiency and peace of mind.



## Key Features

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### High Mileage

Delivers 200+\* km per full charge under standard conditions.



### Mobile App Monitoring

Get real-time battery data on your smartphone.



### Fast Charging

Fully charges in 4 hours with a 50A charger.



### Long Lifespan

Up to 10 years of efficient performance



### Zero Maintenance

No regular upkeep needed, saving time and hassle.



### IoT-Enabled (On-Demand)

Track GPS, health, and control usage remotely.



### Superior Durability & Safety

IP 67-rated and fire-resistant for safe use.

(\* ARAI range with 5kW motor)

[www.clnenergy.in](http://www.clnenergy.in)



# Technical Specification

Model Name	51.2V 200Ah	60.8V 200Ah
Category	L5	L5
Nominal Voltage (V)	51.2	60.8
Capacity (Ah)	200	200
Chemistry	Li-FePO <sub>4</sub>	Li-FePO <sub>4</sub>
Maximum Cut-off Voltage (V)	57.6	68.4
Minimum Cut-off Voltage (V)	44.8	53.2
Charging Mode	CC-CV	CC-CV
Recommended Charging Current (A)	50	50
Maximum Charging Current (A)	70	70
Rated Discharging Current (A)	100	100
Cell Over Voltage Protection	Yes	Yes
Cell Under Voltage Protection	Yes	Yes
Over Current Protection	Yes	Yes
Short Circuit Protection	Yes	Yes
Temperature Protection	Yes	Yes
Working Temperature (°c)	0-55	0-55
Storage Temperature (°c)	10-35	10-35
Dimension (L x W x H) (mm)	507X614X270	715X458X274
Weight approx. (kg)	107	120
Power Connector	SB120/HVP	SB120/HVP

## Certification

AIS - 156 Amendment 3, Phase II Certified



# Material Handling Equipment (MHE) Battery

CLN Energy lithium-ion batteries deliver dependable, high-performance power for industrial and material handling equipment. Utilizing advanced energy storage technology, they offer greater efficiency, extended lifespan, and faster charging than traditional lead-acid batteries. Ideal for forklifts, pallet jacks, and other warehouse machinery, these Li-ion battery packs help minimize downtime, reduce maintenance costs, and boost overall productivity. Engineered for durability in demanding environments, they ensure safe and consistent performance—making them the smart choice for optimizing material handling operations.



## Key Features



### Retrofitting

Fully Replaceable with current lead acid batteries in any type of vehicle



### Inbuilt IoT Enabled BMS

Smart BMS safeguards Li-Ion batteries, reducing maintenance and preventing failures.



### Enhanced Performance

Extended runtime and battery life compared to Lead Acid counterpart



### Fast Charging

Fast Charging Capability, Supports quick top-ups during short breaks



### Superior Durability & Safety

IP66-rated and fire-resistant for enhanced safety and longevity over lead-acid batteries



### Zero Maintenance

Lithium batteries require minimal maintenance, saving your time and effort.



# Technical Specification

Model Name	25.6V 200Ah	48V 400Ah	80V 300Ah	80V 400Ah
Total Battery Capacity (kWh)	5.12	19.2	24	32
Nominal Voltage (V)	25.6	48	80	80
Capacity (Ah)	200	400	300	400
No. of Cells in Series	8	15	25	25
No. of Cells in Parallel	2	4	3	4
Total No. of Cells	16	60	75	100
Chemistry	Li-FePO <sub>4</sub>	Li-FePO <sub>4</sub>	Li-FePO <sub>4</sub>	Li-FePO <sub>4</sub>
Max. Cut of Voltage (V)	29.2	54.75	91.25	91.25
Min. Cut of Voltage (V)	22.4	42	70	70
Weight approx. (kg)	50	200	250	300
Communication	CAN/RS485	CAN/RS485	CAN	CAN
Max. Charging Current (A)	100	150	150	150
Nominal Discharging Current (A)	200	200	300	200
Operating Temperature range (°C)	0 to 55	0 to 55	0 to 55	0 to 55
Dimensions (LxWxH) (mm)	565x1750x410	Model 1: 805x545x415	Model 1: 880x740x370	905x635x575
		Model 2: 950x500x370	Model 2: 810x600x580	

## Application



Forklift



Reach truck



BOPT



Sweeping Machine



Tugger

# Golf Cart Battery

CLN Energy lithium-ion batteries for Golf Cart electric vehicles set a new benchmark in safety, durability, and convenience. Built to be fire and water-resistant, they are supported by a robust Pan India service network. Compliant with stringent local standards, these batteries offer reliable, eco-friendly mobility—delivering dependable performance, enhanced protection, and nationwide support for a truly sustainable driving experience.



## Key Features



### Retrofitting

Fully Replaceable with current lead acid batteries in any type of vehicle



### Inbuilt IoT Enabled BMS

Smart BMS safeguards Li-Ion batteries, reducing maintenance and preventing failures.



### Enhanced Performance

Extended runtime and battery life compared to Lead Acid counterpart



### Fast Charging

Fast Charging Capability, Supports quick top-ups during short breaks



### Superior Durability & Safety

IP 66-rated and fire-resistant for enhanced safety and longevity over lead-acid batteries



### Zero Maintenance

Lithium batteries require minimal maintenance, saving your time and effort.



# Technical Specification

Model Name	51.2V 105Ah	60.8V 105Ah
Nominal Voltage (V)	51.2	60.8V
Capacity (Ah)	105	105
Chemistry	Li-FePO <sub>4</sub>	Li-FePO <sub>4</sub>
Maximum Cut-off Voltage (V)	57.6	68.4
Minimum Cut-off Voltage (V)	44.8	53.5
Charging Voltage (V)	56	66.5
Charging Mode	CC-CV	CC-CV
Recommended Charging Current (A)	33	33
Maximum Charging Current (A)	50	50
Rated Discharging Current (A)	100	100
Cell Over Voltage Protection	Yes	Yes
Cell Under Voltage Protection	Yes	Yes
Over Current Protection	Yes	Yes
Short Circuit Protection	Yes	Yes
Temperature Protection	Yes	Yes
Working Temperature (°c)	0-55	0-55
Storage Temperature (°c)	10-35	10-35
Dimension (L x W x H) (mm)	(570X352X202)	(505X322X289)
Weight approx. (kg)	52	62
Power Connector for Charging and Discharging	SB120	SB120

# Chargers

IP67 and IP20 chargers efficiently power lithium-ion batteries in rickshaws, autos, forklifts, golf carts, and more. The rugged IP67 models (1200W–3300W) are  $\geq 90\%$  efficient, built for harsh environments, and come with a 3-year warranty. The 1200W IP20 model, designed for indoor use and includes a 2-year warranty. Both feature advanced safety protections

## IP 67 Charger

### Key Features



**Reverse Battery Protection**  
(Electronically)



**Mains High Voltage**  
(Withstand up to 320VAC RMS)



**Mains Over Current**  
(by Fuse)



**Thermal Protection**  
(Electronically)



### Technical Specification

Model	1200 Watt	1500 Watt	3300 Watt
Input Voltage Range	200~240VAC; 50/60Hz	170-270 VAC L+N+E 50Hz	85-270 VAC L+N+E 50Hz
Output Power (W)	1200	1500	3300
Charging Current (A)	20	25	50
Efficiency	$\geq 90\%$	$\geq 90\%$	$\geq 90\%$
Indications	External LED Indicator	External LED Indicator	External LED Indicator
Power Factor	$\geq 0.99$	$\geq 0.99$	$\geq 0.99$
Control System	CAN / CC CV	CAN / CC CV	CAN / CC CV
Topology	Active PFC + Half Bridge LLC	Active PFC + Half Bridge LLC	Active PFC + Half Bridge LLC
Weight approx. (kg)	2.5	2.8	6.0
Ingress Protection	IP 67	IP 67	IP 67
Working Temperature (°C)	-30 to 65	-30 to 65	-30 to 65
Warranty & Reliability	3 Years	3 Years	3 Years



# IP20 1200Watts

## Key Features



**Reverse Battery Protection**  
(Electronically)



**Mains High Voltage**  
(Withstand up to 320VAC RMS)



**Mains Over Current**  
(by Fuse)



**Thermal Protection**  
(Electronically)



## Technical Specification

Max Output Power	1200 Watt
CV Voltage Range (V)	53-84
CC Current Range (A)	5-22
CC Current Tolerance (A)	CC Setting $\pm$ 0.5
CC Voltage Tolerance (V)	CV Setting $\pm$ 0.3
Efficiency	91% Typical
Input Power Factor	Active PF Correction, PF > 0.98 ITHD < 5%
Mains Operating Range (Hz)	40 to 60
Ingress Protection	IP 20
Max Input Current	7.5A (Output Current De-Rated at Low Mains to Limit Max Input Current)
Visual Indication	LED Based
Charging Operation Temperature ( $^{\circ}$ C)	0-45







## CLN Energy Ltd.



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