

Leoch International Technology Limited

Floor 18, Huide building, Minzhi street, Longhua District, Shenzhen, China. Tel: +86-755-86036060(100lines) E-mail: info.lithium@leoch.com

Visit **www.leoch.com** for more information.



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LB-LI-PB-EN-V1.0-202303



Company Profile

Founded in 1999, Leoch International (stock code: 00842.HK) is a global leading power supply solutions provider. Headquartered in Singapore, Leoch is a participant in the development of several international industry standards and Chinese national standards. With 13 worldwide manufacturing bases covering an area of 1.32 million square meters, over 70 local service companies, and 13,000 employees including over 1,500 R&D and technical personnel, Leoch International provides industrial and commercial energy storage solutions, ranging from R&D, manufacturing, sales, and services in over 130 countries and regions worldwide. Leoch International specializes in providing professional power supply solutions for industrial and commercial applications worldwide. The company's products and services are focused on:

- --Energy storage systems;
- --Backup power supplies;
- --Automotive start-stop power supplies;
- -- Motive power supplies;



Large scale automated production line





Test Center

Since its establishment, Leoch testing and verification center has been operating strictly accordance with the requirements of CNAS. It has industry-leading testing and verification equipments and a high-level tester team, and has professional testing and verification capabilities for lithium battery products, including material testing, performance testing, and safety and reliability testing, which is able to ensure the quality of battery products is safe and reliable.

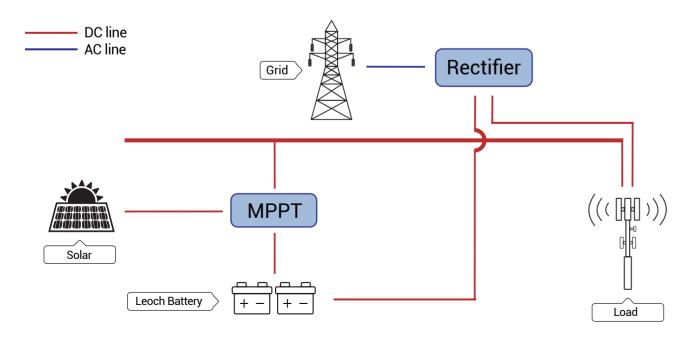
Leoch manufacturing team has experience in large-scale lithium battery manufacturing and the ability of long-term stable product delivery. The company's lithium battery production line has achieved a high degree of automation and intelligence in production. By Introducing a new EMS intelligent system and integrating data acquisition channels (RFID, PLC, IPC, PC, etc.) to cover the entire factory manufacturing site, it can ensue real-time, accurate, and comprehensive collection of big data, multi-dimensional protection of product stability, consistency, service, which helps customers establish safe and reliable energy storage systems.

Leoch Global Operation



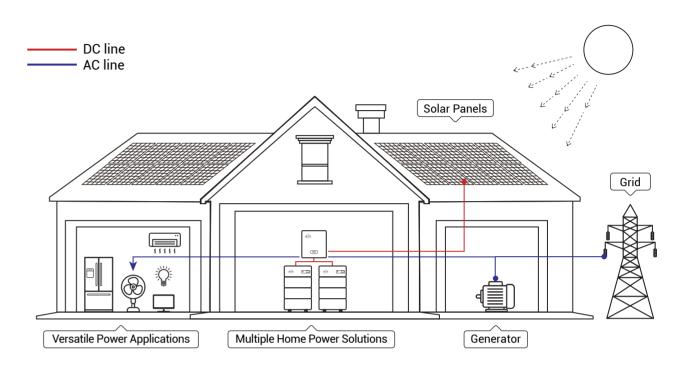
Leoch Network Power Solution

Leoch manufactures a wide range of Lithium Network Power Batteries to cover any telecommunications requirement. Aiming to deliver an unprecedented value to your needs, these solutions offer exceptional performance, long life, high energy density, ease of installation, and hassle-free operation for a broad spectrum of telecom applications.



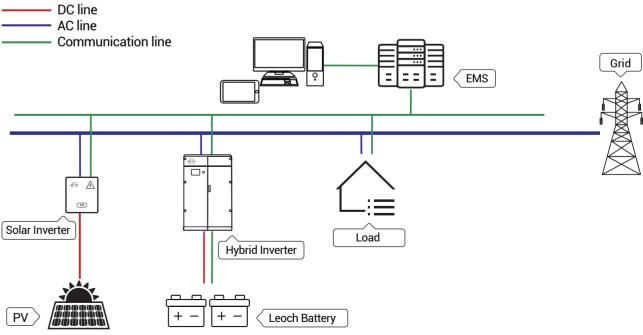
Residential Solar Power Storage Solution

With the deepening of the low-carbon concept and the improvement of the economic benefits of energy storage; Home energy storage systems are increasingly widely used. Based on a thorough understanding of market and industry trends, Leoch has developed household energy storage products that can flexibly adapt to multiple scenarios, making it easier and more efficient for users to use electricity.



Industrial & Commercial Energy Storage Solution

In the field of industrial and commercial energy storage, Leoch can provide modular products and more integrated container energy storage systems, flexibly adapting to customer needs. The system is characterized by convenient installation, safety, and efficiency, which can significantly improve the return on investment of customers.



Network Power



48V Communication Lithium Battery



Product Feature

Ore reliable and safety

Support gyroscope anti-theft and GPS anti-theft

G Advanced monitoring control

• Optimized monitoring strategy through remote control and diagnosis

Wide working temperature

• Excellent high-temperature performance with a working environment temperature of -20-60 Celsius degrees



• Friendly human-machine interface for easy operation



路 More compatible to monitoring system

• Support RS232 and RS485 communication to be connected to the power environment monitoring system

48V Communication Lithium Battery

Model	LFeLi-4850TB	LFeLi-48100TB	LFeLi-48150 TBG-A	LFeLi-48150 TBG-B	LFeLi-48200TB
Rated Capacity (5HR)	50 AH	100 Ah	150 AH	150 AH	200 Ah
Nominal Voltage	48.0 V	48.0V	48.0 V	48.0 V	48V
Discharge Ending Voltage	40.5 V	40.5 V	40.5 V	40.5 V	40.5 V
Charging Limited Voltage	54.0V	54.0 V	54.0 V	54.0 V	54V
Max. Charging Current	50.0 A	100 A	100 A	100 A	100 A
Max. Continue Discharging Current	50.0 A	100A	100 A	100 A	100A
Weight	Approx. 32 Kg	Approx. 41 Kg	Approx. 65 Kg	Approx. 65 Kg	Approx.83 Kg
Display	With a LCD display screen	With a LCD display screen	Without a display screen	With a LCD display screen	With a LCD display screen
Parallel Connection	Parallel connection is optional (up to 16P)	Parallel connection is optional (up to 16P)	Parallel connection is optional (up to 32P) Parallel connect is optional (up to 16P)		
Dimensions (W*D*H) mm	442 * 442 * 132	442 * 450 * 132	442*520*198 442*550*24		
Containing Cell	3.2V 50Ah	3.2V 100Ah	3.2V 150Ah 3.2V 200Ah		
Design Life	More than 15 years				
Cycle Life	More than 5000 cycles at 80% DOD				
IP Class			IP31		
Outer Package Material	Black	bake lacquer stee	l case (battery rac	k or cabinet is op	otional)
Operating Temperature	Charging: 0°	°C to +50°C Disch	arging: -20°C to +	60°C Storage: -2	20°C to +60°C



48V Intelligent Lithium Battery

48V Intelligent Lithium Battery

Model	LFeLi-48100ZN
Rated Capacity (5HR)	100 Ah
Nominal Voltage	48V
Discharge Ending Voltage	40.5V
Charging Limited Voltage	54V
Max. Charging Current	100 A
Max. Continue Discharging Current	100 A
Weight	Approx. 42 Kg
Display	Without a display screen
Parallel Connection	Parallel connection is optional (up to 32P). When paralleling, the max. charging current is 20A
Dimensions (W*D*H) mm	442 * 450* 132
Containing Cell	3.2V 50Ah
Design Life	More than 15 years
Cycle Life	5000cycles at 80%DOD
IP Class	IP30
Outer Package Material	Black aluminum and sheet metal case (battery rack or cabinet is optional)
Operating Temperature	Charging: 0°C to + 45°C Discharging: -20 to + 60°C Storage: -20°C to + 60°C



• Compatible with existing DC power system and mixed batteries

Auxiliary power supply

Save the expansion costs for base station

• Compensating for the drop voltage and reducing the investment cost for booster

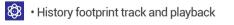
🔀 Up to 32 groups in parallel connection

• Expandable battery capacity to cater for different level demand



48V GPS Communication Lithium Battery





• Maintenance by nearby staff to improve the service efficiency

48V GPS Communication Lithium Battery

Model	LFeLi-48150 EG	LFeLi-48100EG		
Rated Capacity (5HR)	150 Ah	100 Ah		
Nominal Voltage	48.0 V	48.0 V		
Discharge Ending Voltage	40.5 V	40.5 V		
Charging Limited Voltage	54.0 V	54.0 V		
Max. Charging Current	100 A	100 A		
Max. Continue Discharging Current	100A	100A		
Weight	Approx. 65 Kg	Approx. 41 Kg		
Display	Without LCD display			
Parallel Connection	Parallel connection is optional (up to 16P)			
Dimensions (W*D*H) mm (inches)	442 * 520 * 198 442 * 450 * 132			
Anti-theft Feature	T-Sensor & GPS			
Internal Storage	Five minutes a record,	a total of three years		
Cell	3.2V 150Ah	3.2V 100Ah		
Design life	More than 15 years			
Cycle Life	More than 5000 cycles at 80% DOD			
IP Class	IP3	1		
Outer Package Material	Black bake lacquer steel case (ba	ttery rack or cabinet is optional)		
Operating Temperature	Charging: 0 °C to + 50 °C Discharging: -20)°C to + 60 °C Storage: -20°C to +60 °C		



PU High Power Series





High Rate Charge & Discharge Battery string supports high rate charge & discharge

Modular Design

PACK with modular design can be maintained independently



Flexible Configuration

Flexible in series or parallel connection, support three-level UPS system if the module quantity is even number

High Compatibility Replace lead acid battery without modifying the UPS

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Product Feature

🕒 Safest and durable life

• Adopt high energy density and safetest lithium iron battery

E Multiple output communication interfaces

• Compatible to most leading inverters by more comms port options.

3-level architecture for battery manangement

• Multiple classes battery management, reliable and high efficiency

Automatic circulating current control and parallel or offline control

• Easily realize the parallel operation by automatic circulating current control and parallel control

다가 Battery Module

1. Multiple communication interfaces, supporting most of PCS and UPS communication in the market.

2. Adopt internal cell equalization function. The maximum equalization current can reach 300mA.

3. Precise data collection for battery. Support high precision collection of battery voltage and temperature: \pm 3mv, \pm 1 C;

4. Complete self-check and operation status detection function with HMI display

PU High Power Series

Model	PU240V50	PU384V50	PU480V50	PU512V50	PU720V50
Nominal Voltage	240V(1P75S)	384V(1P1205)	480V(1P150S)	512V(1P160S)	720V(1P225S)
Rated Capacity	50Ah	50Ah	50Ah	50Ah	50Ah
Rack Specification					
Dimension	600*800*2000mm	600*800*2000mm	600*800*2000mm	600*800*2000mm	600*1600*2000mm
Modules	5	8	10	10	15
Module Specification					
Connection Method	1P15S	1P15S	1P15S	1P16S	1P15S
Dimension	440*330*176mm	176*630*265mm	176*630*265mm	176*630*265mm	176*630*265mm
Weight	20kg	20kg	20kg	22kg	20kg
Chemistry	LFP	LFP	LFP	LFP	LFP
Electrical Specification					
Operation Voltage	203V~270V	324V~432V	405V~540V	432V~576V	607V~810V
Charge Voltage	263V	420V	525V	560V	787V
Charge Method	CC/CV	CC/CV	CC/CV	CC/CV	CC/CV
Standard Charge Current	15A	15A	15A	15A	15A
Standard Discharge Current	50A	50A	50A	50A	50A
Max Charge Current	30A	30A	30A	30A	30A
Max Discharge Current	200A(4C)	200A(4C)	200A(4C)	200A(4C)	200A(4C)
Backup Time	15minutes (45kW)	15minutes (72kW)	15minutes (90kW)	15minutes (100kW)	15minutes (135kW)
Max Parallel	15	15	15	15	15
Others Specification					
Operation Temperature			Charge: 0°C ~ 45°C ischarge: -20°C ~ +6 Storage: -30°C ~ +60	0°C	
Humanity			5%~95%		
Thermal Management			fan cooling		
Communication Method			RS 485		



BU Long-time Backup Power Series





High Rate Charge & Discharge

Battery string supports high rate charge & discharge



Modular Design

PACK with modular design can be maintained independently

Flexible Configuration Flexible in series or parallel connection, support three-level UPS system if the module quantity is even number

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High Compatibility Replace lead acid battery without modifying the UPS

Product Feature

🕒 Safest and durable life

• Adopt high energy density and safetest lithium iron battery

E Multiple output communication interfaces

· Compatible to most leading inverters by more comms port options.

C4J' Battery Module

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2. Adopt internal cell equalization function. The maximum equalization current can reach 300mA.

3-level architecture for battery manangement

• Multiple classes battery management, reliable and high efficiency

Automatic circulating current control and parallel or offline control

• Easily realize the parallel operation by automatic circulating current control and parallel control

3. Precise data collection for battery. Support high precision collection of battery voltage and temperature: $\pm 3mv$, $\pm 1^{\circ}C$;

4. Complete self-check and operation status detection function with HMI display

BU Long-time Backup Power Series

Model	BU240V100	BU384V100	BU480V100	BU512V100	BU720V100
Nominal Voltage	240V(1P75S)	384V(1P120S)	480V(1P150S)	512V(1P160S)	732.8V(1P229)
Rated Capacity	100Ah	100Ah	100Ah	100Ah	100Ah
Rack Specification					
Dimension	600*800*2000mm	600*800*2000mm	600*800*2000mm	600*800*2000mm	600*1600*2000mm
Modules	5	8	10	10	10
Module Specification					
Connection Method	1P15S	1P15S	1P15S	1P16S	1P22s&1P23s
Dimension	440*330*176mm	176*630*265mm	176*630*265mm	176*630*265mm	176*630*265mm
Weight	35Kg	35Kg	35Kg	37Kg	52.9Kg
Chemistry	LFP	LFP	LFP	LFP	LFP
Electrical Specification					
Operation Voltage	203V~270V	324V~432V	405V~540V	432V~576V	6183V-824.4V
Charge Voltage	263V	420V	525V	560V	787V
Charge Method	CC/CV	CC/CV	CC/CV	CC/CV	CC/CV
Standard Charge Current	25A	25A	25A	25A	25A
Standard Discharge Current	50A	50A	50A	50A	50A
Max Charge Current	50A	50A	50A	50A	50A
Max Discharge Current	200A(2C)	200A(2C)	200A(2C)	200A(2C)	200A(2C)
Backup Time	30minutes (45kW)	30minutes (72kW)	30minutes (90kW)	30minutes (100kW)	30minutes (135kW)
Max Parallel	15	15	15	15	15
Others Specification					
Operation Temperature	Charge: 0°C ~ 45°C Discharge: -20°C ~ +60°C Storage: -30°C ~ +60°C				
Humanity			5%~95%		
Thermal Management			fan cooling		
Communication Method			RS 485		



Residential Battery Energy Storage Solution



Power Your Home with Solar Energy During the Day







Backup for Critical Loads During Power Qutages

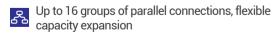


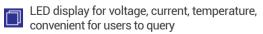
Stackable design, effortlessly installation

Home Energy Storage (Wall-mounted)



Product Introduction







Compatible with mainstream inverters in the market, providing more options



Built-in BMS provides multiple protection functions

Home Energy Storage (Wall-mounted)

ltem	Parameters				
Specifications and models	LFeLi-4850	LFeLi-48100	LFeLi-48150	LFeLi-48200	
Nominal voltage	51.2v				
Nominal capacity	50Ah	100Ah	150Ah	200Ah	
"Maximum continuous charge/ discharge current"	25/50A	100A/100A	100A/100A	100A/100A	
Discharge voltage/Maximum charge	43.2 V/58.4 V	43.2 V/58.4 V	43.2 V/58.4 V	43.2 V/58.4 V	
Weight	30kg	43kg	65kg	90kg	
$\label{eq:dimensions} \mbox{Dimensions(W \times D \times H)} \ (mm)$	450*450*130	450*500*140	400*600*200	500*620*245	
Cycle life	5000 cycles @ 25°C 80% DOD				
"Number of parallel connections supported"	15				
Self-discharge (month)@25°C	≤3%				
BMS communication types	RS485/RS232/CAN				
Cooling Mode	Free Cooling				
IP Class	IP54				
Display Fuction		LCD D	isplay		
Design Life	10 Years				
Certification	CE UN38.3 UL IEC TUV				
Storage Temperature	0°C to 40°C				
Operate Temperature	charge: 0°C to 45°C; discharge: -10°C to 55°C				
Relative Humidity		5% to	95%		
Working Pressure		61kPa~	113kPa		





LeoEco Stackable Power Bank (LV)

LFELI48100H-DJ





Compatible with a variety of mainstream inverter

- Maximum Flexibility for any Applications with up to 64 Modules Connected in Parallel
- LFP battery, safest and long cycle life





and Off-Grid Function

Capable of High-Powered Emergency-Backup

[4] Battery Module

• 5.12 kWh per Module

• Modular and Stack Installation Design to simplify the maintenance

· Connect up to 64 module in parallel for a maximum size of 320 kWh.

Home Energy Storage (Stackble Battery)

					4	
Plug Connection No Additional Wiring Required	5-60k Tailored Sizir Applica	ng for Each	Extend A Easily Adapi Requirer	s to New	High Pov Power for E Applicatio	very
Technical Parameters						
Battery Module			LFELI4	3100H-DJ		
Number of Modules	1	2	3	4	5	6
Usable Energy [1]	5 kwh	10 kwh	15 kwh	20 kwh	25 kwh	30 kw
Max Cont. Output Current [2]	100 A 100 A 100 A 100 A 100 A 100 A				100 A	
Nominal Voltage		51.2 V				
Operating Voltage			43.2	-58.4 V		
Operating Temperature		-10°C to +50°C				
Battery Cell Technology		Lithium Iron Phosphate				
Communication			CAN	/ RS485		
Enclosure Protection Rating			I	² 55		
Round-Trip Efficiency	95%					
Scalability [3]		Max. 64 Modules in Parallel (320 kWh)				
		UN38.3				
Applications			ON Grid + Ba	ckup / OFF Gr	id	











LeoEco Stackable Power System (LV)

LFELI48100H-DJ-ESS020



Product Introduction

- Scalable from 5 kWh to 60 kWh
- Self-Consumption Optimization
- Maximum Flexibility for any Applications with up to 12 Modules Connected in Parallel
- Integrated with inverter to avoid the compatibility problem

F LFP battery, safest and long cycle life

- Stackable design, effortlessly installation
- Capable of High-Powered Emergency-Backup and Off-Grid Function

Home Energy Storage (Stackble Battery)

Flexible, Efficient, Simple



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5-60KWH

Application

Plug Connection No Additional Wiring Required

Technical Parameters						
Item		Parameters				
Rated Power	5600W					
Maximum PV Array Open Circuit voltage			500	/DC		
MPPT Range			120-4	50V		
Nomial Output Voltage			220/230/	240VAC		
Output Voltage Range			184-26	5VAC		
Nomial Output Current			25.5A/24.3	3A/23.3A		
Efficiency			Up to 9	93.5%		
Grid Input Voltage Range	120-280VAC					
Grid Frequency Range	50/60Hz(Auto Sensing)					
Maximum AC Charge Current	120A					
Maximum Solar Charge Current	120A					
Nominal DC Voltage	48VDC					
Battery Module	LFELI48100H-DJ-ESS020					
Number of Modules	1	2	3	4	5	6
Usable Energy [1]	5 kwh	10 kwh	15 kwh	20 kwh	25 kwh	30 kwh
Max Cont. Output Current [2]	100 A	100 A	100 A	100 A	100 A	100 A
Nominal Voltage			51.2	2 V		
Operating Voltage			43.2-5	8.4 V		
Operating Temperature	-10°C to +50°C					
Battery Cell Technology	Lithium Iron Phosphate					
Communication	CAN / RS485					
Enclosure Protection Rating	IP55					
Round-Trip Efficiency			95	%		
Scalability [3]		Max.	64 Modules in	Parallel (320 l	‹Wh)	
			UN3	8.3		
Applications		(ON Grid + Back	up / OFF Grid		

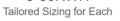
[4] Battery Module

- 5.12 kWh per Module
- Modular and Stack Installation Design to simplify the maintenance
- · Connect up to 64 module in parallel for a maximum size of 320 kWh.











Extend Anytime Easily Adapts to New

Requirements



LeoEco Stackable Power Bank (HV)

LFELI307100H-DJ030 307V100A







High Efficiency Max. efficiency 100%

Easy installation 45 Kg Battery modules

Safe and Reliable Lithium iron phosphate battery cells



Perfect Compatibility Work with leading branded inverters

Product Introduction

- 🛱 LFP Battery, Safe and long Cycle life
- E Stackable design, easy installation
- Compatible with a variety of mainstream inverter



品 Supports off-grid and grid-connected scenarios

High voltage solution makes higher conversion efficiency

[서] Battery Module

- 5.12 kWh per Module
- Modular and Stack Installation Design to simplify the maintenance
- · Connect up to 64 module in parallel for a maximum size of 320 kWh.

Home Energy Storage (Stackble Battery)

Flexible, Efficient, Simple _____ **Plug Connection** 5-60KWH Tailored Sizing for Each No Additional Wiring Required Application **Technical Parameters** LE020 **Battery Module** 20.45 Usable Energy (kWh)*1 Number of Modules 4 Cell Type Nominal Voltage (V) 204.8 Operating Voltage Range (V) 179.2~23 Nominal Dis- / Charge Current (A)*2 Operating Temperature Range (°C) Communication Weight (kg) 186 Dimensions ($W \times H \times D$ mm) 1000*360 Ingress Protection Rating

Round-Trip Efficiency

Applications









Extend Anytime Easily Adapts to New Requirements



High Power Power for Every Application

D	LE025	LEO30			
5	25.6	30.72			
	5	6			
	LFP(LiFePO4)				
3	256	307.2			
33.6	224~292	268.8~350.4			
50					
Charge: 0°	Charge: 0°C ~ +50°C; Discharge: -10°C ~ +50°C				
	CAN/RS485				
	238	290			
*820	1000*360*1020	1000*360*1220			
	IP55				
	≥95%				
C	N Grid + Backup / OFF Grid				

LeoEco Stackable Power System (HV)

LFELI307100H-ESS030 307V100A



High voltage solution makes higher conver-

sion energe fficiency.

G Support 3 Phase Output

- 1<u>7</u>1 Self-Consumption Optimization
- Maximum Flexibility for any Applications with up to 64 Modules Connected in Parallel 圮
- Representation of the compatibility problem

[4] Battery Module

- 5.12 kWh per Module
- · Modular and Stack Installation Design to simplify the maintenance
- · Connect up to 64 module in parallel for a maximum size of 320 kWh.

Home Energy Storage (Stackble Battery)

Flexible, Efficient, Simple

5	-60K\	NΗ

Application

Plug Connection No Additional Wiring Required

ItemParametersMaximum Photovoltaic Input yolvage	Technical Parameters					
Rated Photovoltaic DC input voltage620VMPPT operating voltage range200-950VMPPT Quantity2Maximum Photovoltaic Input Current15A/15ARated Output Power to Gird10KWRated Voltage3L/N/PE; 220/380V;230/400V;24/415VFrequency of Grid50/60HzMaximum Output Current to Grid16.5ABattery Voltage Range135-750VMaximum Battery Charge/Discharge Current25A/25ARated output voltage to Load110KWRated output Voltage to Load16.5ABattery Module16.5ALEO20LEO25LEO3016.5A	Item	Parameters				
MPPT operating voltage range200-950VMPPT Quantity2Maximum Photovoltaic Input Current15A/15ARated Output Power to Gird10KWRated Voltage3L/N/E; 220/380V;230/400V;24/15VFrequency of Grid50/60HzMaximum Output Current to Grid16.5ABattery Voltage Range135-750VMaximum Battery Charge/Discharge Current25A/25ARated Output Power to Load10KWRated output voltage to Load3L/N/E; 220/380V;230/400V;24/415VMaximum Output Current to Load10KWBattery Module16.5ALEO20LEO25LEO30Usable Energy (kWh)*120.4525.6No. A content of the load30.72	Maximum Photovoltaic Input power		15KW			
MPPT Quantity2Maximum Photovoltaic Input Current15A/15ARated Output Power to Gird10KWRated Voltage3L/N/PE; 220/380V;230/400V;24U/415VFrequency of Grid50/60HzMaximum Output Current to Grid16.5ABattery Voltage Range135-750VMaximum Battery Charge/Discharge Current25A/25ARated Output Power to Load10KWRated output voltage to Load3L/N/PE; 220/380V;230/400V;24U/415VMaximum Output Current to Load10KWBattery Module16.5ALEO20LEO25LEO3030.72	Rated Photovoltaic DC input voltage		620V			
Maximum Photovoltaic Input Current15A/15ARated Output Power to Gird10KWRated Voltage3L/N/PE; 220/380V;230/400V;24/15VFrequency of Grid50/60HzMaximum Output Current to Grid16.5ABattery Voltage Range135-750VMaximum Battery Charge/Discharge Current25A/25ARated Output Power to Load10KWRated output voltage to Load110KWBattery Module10KWBattery Module10KWRated output voltage to Load16.5ABattery Module20.45LE020LE025LE03030.72	MPPT operating voltage range		200-950V			
Rated Output Power to Gird10KWRated Voltage10KWRated Voltage3L/N/PE; 220/380V;230/400V;240/415VFrequency of Grid50/60HzMaximum Output Current to Grid16.5ABattery Voltage Range25A/25AMaximum Battery Charge/Discharge Current25A/25ARated Output Power to Load3L/N/PE; 220/380V;230/400V;24/VERated output voltage to Load3L/N/PE; 220/380V;230/400V;24/VEMaximum Output Current to Load16.5ABattery ModuleLEC020LE025LE030Usable Energy (kWh)*120.4525.630.72	MPPT Quantity	2				
Rated Voltage 3L/N/PE; 220/380V;230/400V;24/15V Frequency of Grid 50/60Hz Maximum Output Current to Grid 16.5A Battery Voltage Range 135-750V Maximum Battery Charge/Discharge Current 25A/25A Rated Output Power to Load 10KW Rated output voltage to Load 3L/N/PE; 220/380V;230/400V;24/15V Maximum Output Current to Load 116.5A Battery Module LE020 LE025 LE030 30.72	Maximum Photovoltaic Input Current	15A/15A				
Frequency of Grid50/60HzMaximum Output Current to Grid16.5ABattery Voltage Range135-750VMaximum Battery Charge/Discharge Current25A/25ARated Output Power to Load10KWRated output voltage to Load3L/N/E; 220/380V;230/400V;24/15VMaximum Output Current to Load16.5ABattery ModuleLEO20LEO25Usable Energy (kWh)*120.4525.630.72	Rated Output Power to Gird		10KW			
Maximum Output Current to Grid16.5ABattery Voltage Range135-750VMaximum Battery Charge/Discharge Current25A/25ARated Output Power to Load10KWRated output voltage to Load3L/N/PE; 220/380V;230/400V;24U/415VMaximum Output Current to Load16.5ABattery ModuleLEO20LEO25LEO30Usable Energy (kWh)*120.4525.630.72	Rated Voltage	3L/N/P	PE; 220/380V;230/400V;240	/415V		
Battery Voltage Range135-750VMaximum Battery Charge/Discharge Current25A/25ARated Output Power to LoadOKWRated output Voltage to Load3L/N/PE; 220/380V;230/400V;24/415VMaximum Output Current to LoadLEO20LEO25LEO30Battery ModuleLEO20LEO25LEO30Usable Energy (kWh)*120.4525.630.72	Frequency of Grid	50/60Hz				
Maximum Battery Charge/Discharge Current25A/25ARated Output Power to Load10KWRated output voltage to Load3L/N/PE; 220/380V;230/400V;240/415VMaximum Output Current to Load16.5ABattery ModuleLEO20LEO25LEO30Usable Energy (kWh)*120.4525.630.72	Maximum Output Current to Grid	16.5A				
Rated Output Power to Load 10KW Rated output voltage to Load 3L/N/PE; 220/380V;230/400V;24/415V Maximum Output Current to Load 16.5A Battery Module LEO20 LEO25 LEO30 Usable Energy (kWh)*1 20.45 25.6 30.72	Battery Voltage Range	135-750V				
Rated output voltage to Load 3L/N/PE; 220/380V;230/400V;24/415V Maximum Output Current to Load 16.5A Battery Module LE020 LE025 LE030 Usable Energy (kWh)*1 20.45 25.6 30.72	Maximum Battery Charge/Discharge Current	25A/25A				
Maximum Output Current to Load 16.5A Battery Module LEO20 LEO25 LEO30 Usable Energy (kWh)*1 20.45 25.6 30.72	Rated Output Power to Load	10KW				
Battery Module LEO20 LEO25 LEO30 Usable Energy (kWh)*1 20.45 25.6 30.72	Rated output voltage to Load	3L/N/PE; 220/380V;230/400V;240/415V				
Usable Energy (kWh)*1 20.45 25.6 30.72	Maximum Output Current to Load	16.5A				
	Battery Module	LEO20	LE025	LEO30		
Number of Modules 4 5 6	Usable Energy (kWh)*1	20.45	25.6	30.72		
т б б	Number of Modules	4	5	6		
Cell Type LFP(LiFePO4)	Cell Type		LFP(LiFePO4)			
Nominal Voltage (V) 204.8 256 307.2	Nominal Voltage (V)	204.8	256	307.2		
Operating Voltage Range (V) 179.2~233.6 224~292 268.8~350.4	Operating Voltage Range (V)	179.2~233.6	224~292	268.8~350.4		
Nominal Dis- / Charge Current (A)*2 50	Nominal Dis- / Charge Current (A)*2	50				
Operating Temperature Range (°C)Charge: 0°C ~ +50°C; Discharge: -10°C ~ +50°C	Operating Temperature Range (°C)	Charge: 0°0	C ~ +50°C; Discharge: -10°C	°∼ +50°C		
Communication CAN/RS485	Communication		CAN/RS485			
Weight (kg) 186 238 290	Weight (kg)	186	238	290		
Dimensions (W × H × D mm) 1000*360*820 1000*360*1020 1000*360*1220	Dimensions (W \times H \times D mm)	1000*360*820	1000*360*1020	1000*360*1220		
Ingress Protection Rating IP55	Ingress Protection Rating		IP55			
Round-Trip Efficiency ≥95%	Round-Trip Efficiency		≥95%			
Applications ON Grid + Backup / OFF Grid	Applications	C)N Grid + Backup / OFF Grid			







Tailored Sizing for Each



Extend Anytime Easily Adapts to New Requirements



High Power Power for Every Application

Industrial & Commercial Battery Energy Storage Solution



I.e.

All In One Battery Storage Cabinet







Photovoltaic Energy Storage Wind Power Energy Storage



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Rural Areas Without Electricity

Product Feature

Flexible configuration

All in one design, high integrationCompact size, high power density

Optimal algorithm

• Optimal Compatibility Design of PCS and cell cluster voltages

• On-demand deployment with automatic peak-load and valley- filling operation

A High efficiency and stabability

Max.system efficiency 90%High-efficiency three-level topology

Safety and reliable

Support coordination of BMS and EMSSystem multiple classes protection

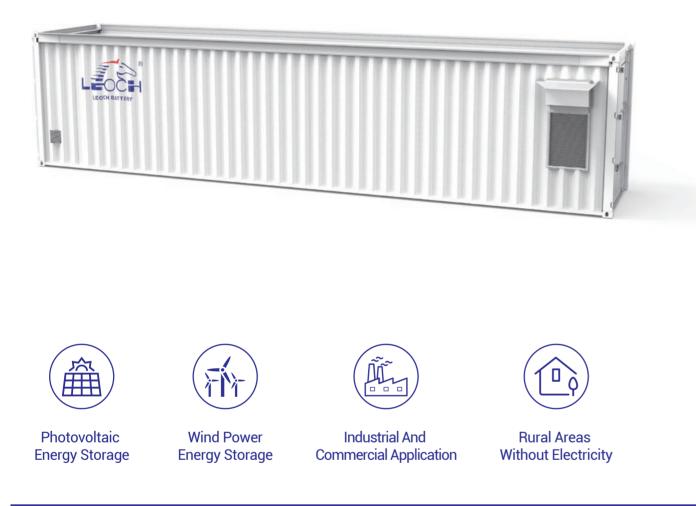
All In One Battery Storage Cabinet

AC parameter	
Rated AC power	
Wiring connection	
AC overload capacity	
Allowable grid voltage	
Allowable grid freq.	
Total current harmonic distortion rate	
Power factor	
Battery side parameter	
Cell type	
Battery system configuration	
Rated voltage	
Battery voltage range	
Battery energy	
System parameter	
Noisy	
Protection rate	
Allowable environment temp.	
Allowable environment temp.	
Allowable environment temp. Cooling method	
Allowable environment temp. Cooling method Allowable humidity	
Allowable environment temp. Cooling method Allowable humidity Cabinet size(WxHxD)	
Allowable environment temp. Cooling method Allowable humidity Cabinet size(WxHxD) Allowable Altitude	
Allowable environment temp.Cooling methodAllowable humidityCabinet size(WxHxD)Allowable AltitudeCabinet weight	
Allowable environment temp.Cooling methodAllowable humidityCabinet size(WxHxD)Allowable AltitudeCabinet weightMax.system efficiency	
Allowable environment temp. Cooling method Allowable humidity Cabinet size(WxHxD) Allowable Altitude Cabinet weight Max.system efficiency Communication parameter	



100kW
3P3W
110kW
380/400 (-15%~10%)Vac
50/60 (-2.5~2.5)Hz
≤3%
0.99/-1~1
LFP 280Ah
1P224S
716.8V
627.2~795.2V
200kWh
<75dB
IP54
-20~60°C
Fan
0~95% (No condensation)
1700*2200*1000 mm
3000m (derated over 3000m)
3.5tons
90%
RS 485, Ethernet, CAN
Modbus TCP/RTU, CAN2.0

LEOCH Containerized Energy Storage System



Product Feature

Flexible configuration

All in one design, high integration Compact size, high power density

Ocmmercial and Industrial application

• Versatile application scenarios, improve quality of power supply

\bigtriangleup High efficiency and stabability

Max.system efficiency 90%High-efficiency three-level topology

Safety and reliable

Support coordination of BMS and EMS
System multiple classes protection

LEOCH Containerized Energy Storage System

Model	LEO2000KWH	LEO2400KWH	LEO2800KWH	LEO3200KWH
Inverter Type	Hybrid Inverter	Hybrid Inverter	Hybrid Inverter	Hybrid Inverter
Rated Battery Capacity(standard)	2000KWh	2400KWh	2800KWh	3200KWh
Utility Voltage Range	380V/360V-440Vac; 480V/432V - 528Vac 50/45~55Hz; 60/55~65Hz			
AC (Off Grid)	AC400V, 3W+PE, 50/60HZ			
Battery system structure	BMM/BCM/EMS ;			
DC Side Volt.Range	600-900VDC			
Battery Racks	Steel Racks	Steel Racks	Steel Racks	Steel Racks
Design Life	15 years OR 6000cycles@25°C80%D0D 0.5CP			
Rated rate	≤0.5CP			
Data Monitor	Wifi Monitor/4G Terminal Monitor			
Installation type	plug-and-play			
Working temperature	-20°C~55°C			
Protection level	IP54			
Packing base	Standard container			
Fire Suppression	HFC-EA			
Max round-up efficiency	90%			
Noisy(dB)	<75			
Cooling method	HVAC			
Altitude	5000m(derate at over 3000m)			
Wiring type	3W+PE			
BMS comms. type	RS485/CAN			
EMS comms type	RS485, TCP/IP, Ethernet			



Motive Power



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Model	LFeLi-4860	LFeLi-4880	LFeLi-48100GC1
Rated Capacity (5HR)	60 Ah	80 Ah	100 Ah
Nominal Voltage	51.2 V	51.2 V	51.2 V
Discharge Ending Voltage	40.0 V	40.0 V	40.0 V
Charging Limited Voltage	58.4V	58.4V	58.4V
Max. Charging Current	30 A	40 A	50 A
Max. Continue Discharging Current	60A	80A	100A
Weight	Approx. 30Kg	Approx. 43Kg	Approx. 43Kg
Display	Optional	Optional	Optional
Parallel Connection	w/o	w/o	Parallel connection is optional (up to 16P)
Dimensions (W*D*H) mm (inches)	540 * 250 * 360	540 * 250 * 360	540 * 250 * 360
Communication	CAN		
Design life	More than 10 years		
Cycle Life	More than 3000 cycles at 80% DOD 80%		
IP Class	IP54		
Outer Package Material	Black bake lacquer steel case		
Operating Temperature	Charging: 0°C to + 55°C Discharging: -20°C to + 60°C Storage: -20°C to +60°C		



Specification	48V 20Ah	48V 40Ah
L(mm)	278	475
W(mm)	165	165
H(mm)	172	172
Nominal Voltage(V)	48	48
Charge Current(A)	10	20
Charge Limit(V)	54	54
Discharge Current(A)	20	40
E.O.V(V)	40	40

