

LESSO



Guangdong Lesso Energy Storage Technology Co., Ltd

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LESSO Group (2128) is listed in the Stock Exchange of Hong Kong.

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Energy Storage Product Manual

Solar Inverter | Battery | Portable Energy Storage | EV Charger

A Bright and Exciting Journey

LESSO Group is a Hong Kong-listed (2128.HK) manufacturer of building materials with an annual revenue of over USD 4.38 billion from its global operations.

Guangdong Lesso Energy Storage Technology Co., Ltd. is a comprehensive energy storage technology integrator that specializes in R&D, production, sales, and after-sales services.

Our comprehensive product line ranges from residential energy storage, portable energy storage, industrial and commercial energy storage, inverters and EV charging equipment to other energy storage products. We are committed to providing safe, efficient, and comprehensive energy storage solutions.



USD4.38 bil
Annual Sales Revenue



38 years
Production Experience



3.5GWh+
Production Capacity



Product Certification And Achievements Recognition



CQC



CE



3C



TUV



TUV Rheinland



CB



FCC



PSE



RoHS



UKCA



UL



ETL



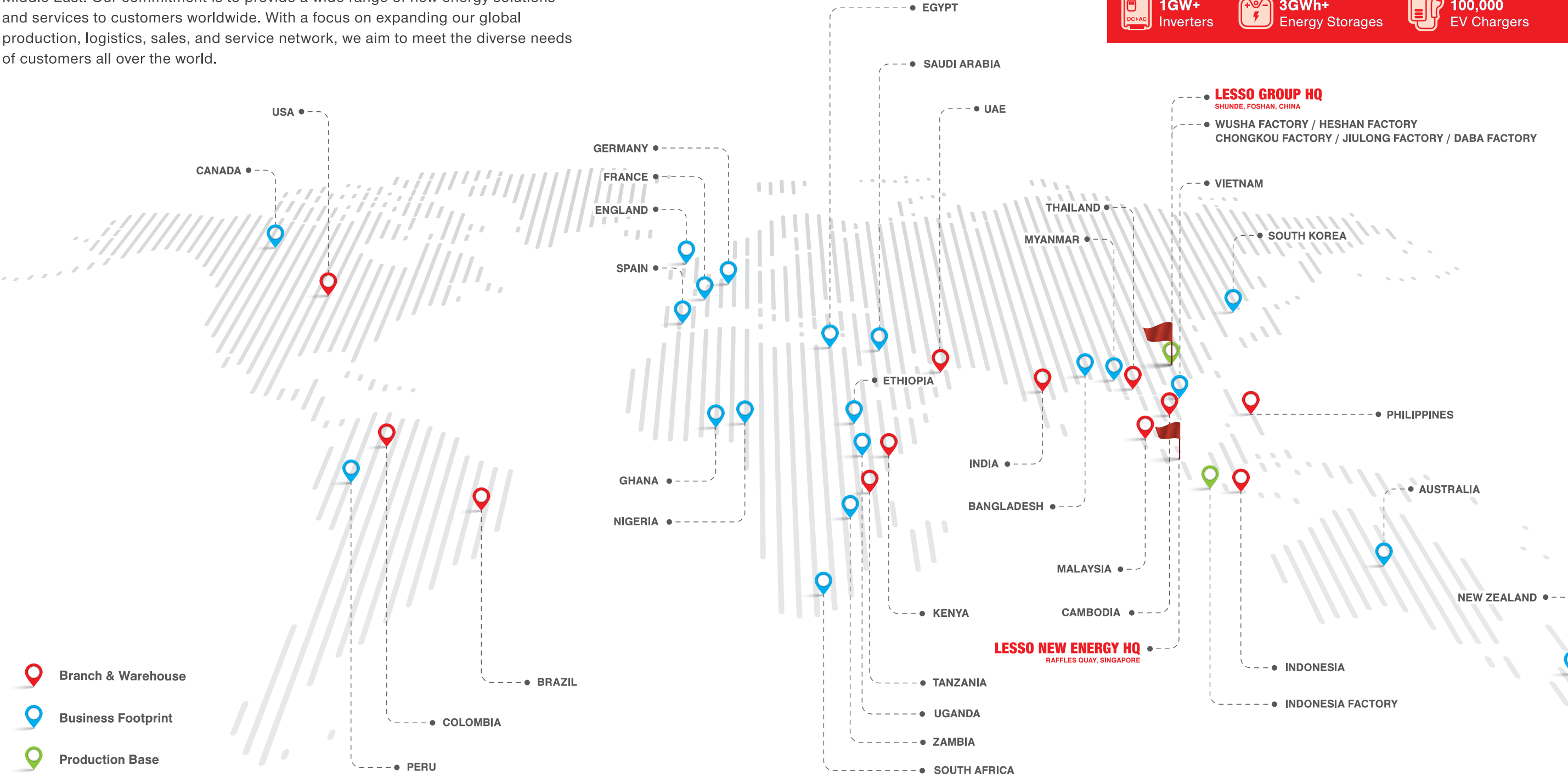
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MSDS

LESSO Solar Global Footprint

Drawing upon the extensive resources of LESSO, the global footprint of LESSO solar has covered Asia, North America, South America, Europe, South Africa, and the Middle East. Our commitment is to provide a wide range of new energy solutions and services to customers worldwide. With a focus on expanding our global production, logistics, sales, and service network, we aim to meet the diverse needs of customers all over the world.



CHONGKOU FACTORY



1GW+
Inverters



3GWh+
Energy Storages



100,000
EV Chargers

Inverter series

Safe and Reliable, User-friendly and Economical

- Residential Inverters
- Commercial & Industrial Inverters
- Residential Storage Inverters





Micro PV Inverter

LSMT300TL-H1
LSMT350TL-H1
LSMT400TL-H1

Micro PV Inverter Highlights

1. Single unit connects up to 1 PV module.

2. Maximun 300W/350W/400W AC output power.

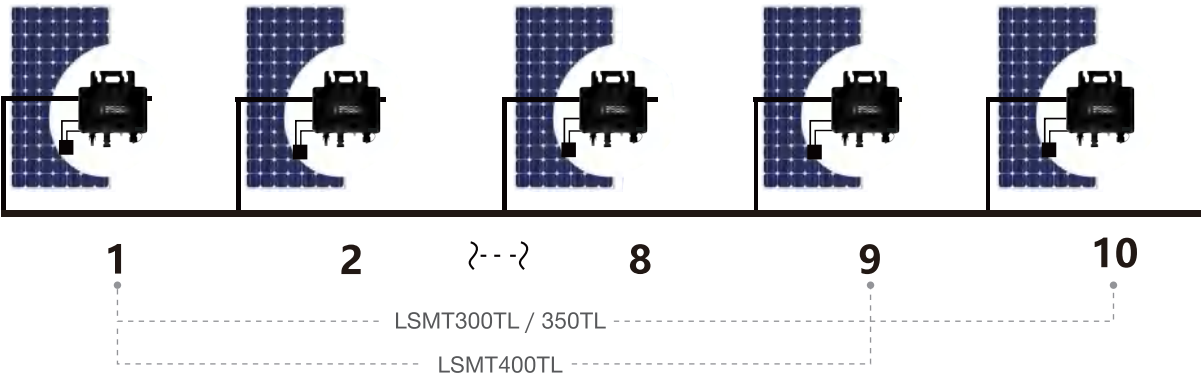
3. Single phase output, Flexible 3-phase PV system.

4. WIFI communication and cloud monitoring.
5. Customizable various input (DV PV) voltage range.

6. Integrated AC bus cable,ready-To-Use.

7. Low cost,easy installation.

Single phase connection method of micro inverter



- LSMT300TL / 350TL Up to 10 units per branch (230V); LSMT400TL Up to 9 units per branch (230V).
- The VOC of PV modules should not be greater than the max DC input voltage of micro PV inverter



Micro PV Inverter

DC Input	Model	LSMT300TL-H1		LSMT350TL-H1	LSMT400TL-H1
	Number of input MC4 connector	1 set			
	MPPT voltage range	16V-48V			
	Operation voltage range	20-50V			
	Maximum Input voltage	50V			
	Startup voltage	18V			
	Maximum input power	300W		350W	400W
	Maximum input current	12A		14A	16A
AC Output	Single-phase grid type	L,N,PE 120V/230V			
	Rated output power	300W		350W	400W
	Maximum output power	300W		350W	400W
	Nominal output current	@120VAC:2.5A/@230VAC:1.3A			
	Nominal output voltage	120VAC /230VAC			
	Default output voltage range	@120VAC:80V-160V/@230VAC:180V-270V			
	Nominal output frequency	50Hz / 60Hz			
	Default output frequency range	@50Hz:48Hz-51Hz/@60Hz:58Hz-61Hz			
	Power Factor	>0.99%			
	Total harmonic distortion	THD <5%			
	Maximum units per branch	@120VAC:5units /300W-350W @230VAC: 10units; 400W @230VAC: 9units			
Eifficiency	Nominal MPPT efficiency	99.5%			
	Peak efficiency	95%			
	Night power consumption	<1W			
Mechanical Data	Operating ambient temperature range	-40°C to +65°C			
	Storage temperature range	-40°C to +85°C			
	Dimensions (L × W ×H)	195mm x 185mm x 40mm			
	Weight	1.6kg			
	Max current of AC bus cable	20A			
	Waterproof rating	IP66			
	Cooling mode	Natural convection - no fans			
Other Features	Communication	WIFI(cloud monitoring)			
	Power transmission mode	Reverse transfer, load priority			
	Monitoring system	Mobile APP, PC browser			
	Transformer design	High frequency transformers,galvanically isolated			
	Integrated ground	Equipment ground is provided by the PE in the AC cable. No additional ground is required			
	Protection Functions	Isolated island protection,voltage protection, frequency protection, temperature protection, current protection, etc.			
	Design compliance	EN IEC61000-3-2:2019+A1:2021, EN 61000-3-3:2013+A1:2019+A2:2021, EN IEC55014-2:2021			
	Certificate	CE			



Micro PV Inverter

LSMT600TL-H1
LSMT700TL-H1
LSMT800TL-H1

Micro PV Inverter Highlights

1. Single unit connects up to 2 PV module.

2. Maximun 600W/700W/800W AC output power.

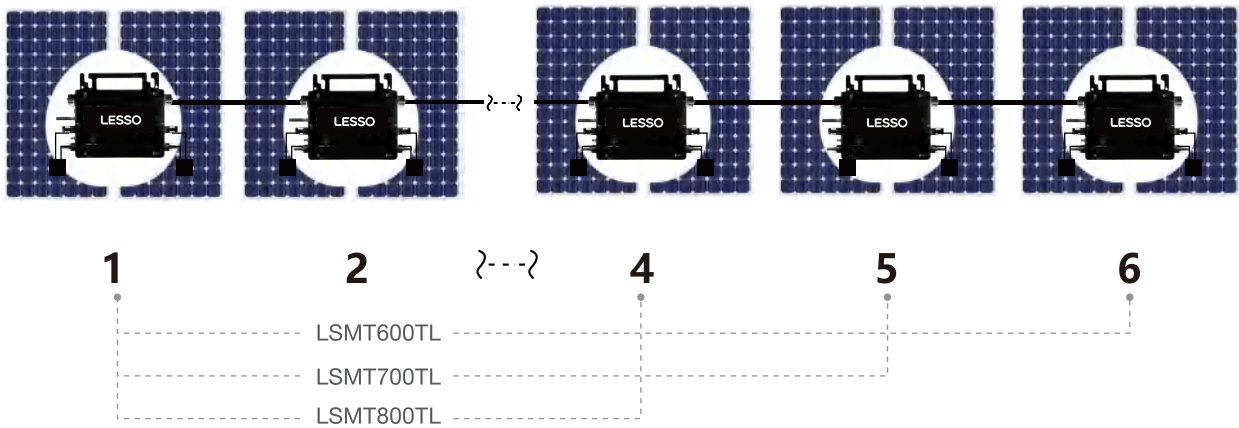
3. Single phase output, Flexible 3-phase PV system.

4. WIFI communication and cloud monitoring.
5. Customizable various input (DV PV) voltage range.

6. Integrated AC bus cable,ready-To-Use.

7. Low cost,easy installation.

Single phase connection method of micro inverter



- LSMT600TL Up to 6 units per branch (230V); LSMT700TL Up to 5 units per branch (230V); LSMT800TL Up to 4 units per branch (230V).
- The VOC of PV modules should not be greater than the max DC input voltage of micro PV inverter.



Micro PV Inverter

DC Input	Model	LSMT600TL-H1	LSMT700TL-H1	LSMT800TL-H1
	Number of input MC4 connector	2 sets		
	MPPT voltage range	22V-48V		
	Operation voltage range	20-50V		
	Maximum Input voltage	52V		
	Startup voltage	18V		
	Maximum input power	600W	700W	800W
	Maximum input current	12A*2	14A*2	16A*2
AC Output	Single-phase grid type	L,N,PE 120V/230V		
	Rated output power	600W	700W	800W
	Maximum output power	600W	700W	800W
	Nominal output current	@120VAC:5A @230VAC:2.6A	@120VAC:5.8A @230VAC:3A	@120VAC:6A @230VAC:3.5A
	Nominal output voltage	120VAC /230VAC		
	Default output voltage range	@120VAC:80V-160V/@230VAC:180V-270V		
	Nominal output frequency	50Hz / 60Hz		
	Default output frequency range	@50Hz:48Hz-51Hz/@60Hz:58Hz-61Hz		
	Power Factor	>0.99%		
	Total harmonic distortion	THD <5%		
	Maximum units per branch	LSMT600TL-H1: @120VAC:3units /@230VAC: 6units LSMT700TL-H1: @120VAC:3units /@230VAC: 5units LSMT800TL-H1: @120VAC:3units /@230VAC: 4units		
Eifficiency	Nominal MPPT efficiency	99.5%		
	Peak efficiency	95%		
	Night power consumption	<1W		
Mechanical Data	Operating ambient temperature range	-40°C to +65°C		
	Storage temperature range	-40°C to +85°C		
	Dimensions (L × W ×H)	230mm x 185mm x 45mm		
	Weight	2kg		
	Max current of AC bus cable	20A		
	Waterproof rating	IP66		
	Cooling mode	Natural convection - no fans		
	Communication	WIFI(cloud monitoring)		
Other Features	Power transmission mode	Reverse transfer, load priority		
	Monitoring system	Mobile APP, PC browser		
	Transformer design	High frequency transformers,galvanically isolated		
	Integrated ground	Equipment ground is provided by the PE in the AC cable. No additional ground is required		
	Protection Functions	Isolated island protection,voltage protection, frequency protection, temperature protection, current protection, etc.		
	Design compliance	EN IEC61000-3-2:2019+A1:2021, EN 61000-3-3:2013+A1:2019+A2:2021, EN IEC55014-2:2021		
	Certificate	CE		



Micro PV Inverter

LSMT1200TL-H1
LSMT1400TL-H1
LSMT1600TL-H1
LSMT2000TL-H1

Micro PV Inverter Highlights

1. Single unit connects up to 4 PV module.

2. Maximun 1200W/1400W/1600W/2000W AC output power.

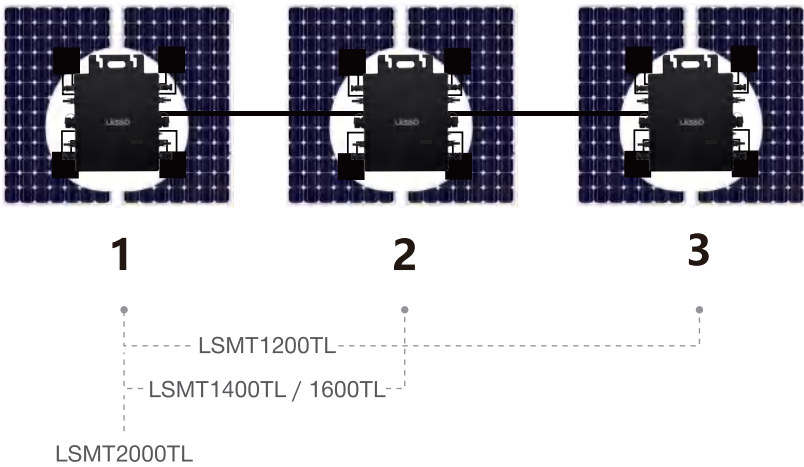
3. Single phase output, Flexible 3-phase PV system.

4. WIFI communication and cloud monitoring.
5. Customizable various input (DV PV) voltage range.

6. Integrated AC bus cable,ready-To-Use.

7. Low cost,easy installation.

Single phase connection method of micro inverter



- LSMT1200TL Up to 3 units per branch (230V); LSMT1400TL Up to 2 units per branch (230V); LSMT1600TL Up to 2 units per branch (230V); LSMT2000TL Up to 1 units per branch (230V).
- The VOC of PV modules should not be greater than the max DC input voltage of micro PV inverter.



Micro PV Inverter

DC Input	Model	LSMT1200TL-H1		LSMT1400TL-H1	LSMT1600TL-H1	LSMT2000TL-H1
	Number of input MC4 connector	4 sets				
	MPPT voltage range	22V-48V				
	Operation voltage range	18-60V				
	Maximum Input voltage	60V				
	Startup voltage	22V				
	Maximum input power	1200W	1400W	1600W	2000W	
	Maximum input current	12A*4	14A*4	15A*4	16A*4	
	AC Output	Single-phase grid type	L,N,PE 120V/230V			
Rated output power		1200W	1400W	1600W	2000W	
Maximum output power		1200W	1400W	1600W	2000W	
Nominal output current		@120VAC:10A @230VAC:5.2A	@120VAC:11.6A @230VAC:6A	@120VAC:13A @230VAC:6.9A	@120VAC:16.6A @230VAC:8.A	
Nominal output voltage		120VAC /230VAC				
Default output voltage range		@120VAC:80V-160V/@230VAC:180V-270V				
Nominal output frequency		50Hz / 60Hz				
Default output frequency range		@50Hz:48Hz-51Hz/@60Hz:58Hz-61Hz				
Power Factor		>0.99%				
Total harmonic distortion		THD <5%				
Maximum units per branch		LSMT1200TL-H1: @120VAC:2units /@230VAC: 4units LSMT1400TL / 1600TL-H1: @120VAC:2units /@230VAC: 4units (AC cable 3*2.5mm²) LSMT2000TL-H1: @120VAC:2units /@230VAC: 1units (AC cable 3*2.5mm²)				
Efficiency		Nominal MPPT efficiency	99.5%			
	Peak efficiency	95%				
	Night power consumption	<1W				
Mechanical Data	Operating ambient temperature range	-40°C to +65°C				
	Storage temperature range	-40°C to +85°C				
	Dimensions (L × W ×H)	255mm x 340mm x 45mm				
	Weight	3.7kg			3.5kg	
	Max current of AC bus cable	20A				
	Waterproof rating	IP66				
	Cooling mode	Natural convection - no fans				
Other Features	Communication	WIFI(cloud monitoring)				
	Power transmission mode	Reverse transfer, load priority				
	Monitoring system	Mobile APP, PC browser				
	Transformer design	High frequency transformers,galvanically isolated				
	Integrated ground	Equipment ground is provided by the PE in the AC cable. No additional ground is required				
	Protection Functions	Isolated island protection,voltage protection, frequency protection, temperature protection, current protection, etc.				
	Design compliance	EN IEC61000-3-2:2019+A1:2021, EN 61000-3-3:2013+A1:2019+A2:2021, EN IEC55014-2:2021				
	Certificate	CE				



PV Inverter

LSBH (6~30) KTL3-OC1

Product Model		LSBH6KTL3-OC1	LSBH8KTL3-OC1	LSBH10KTL3-OC1	LSBH12KTL3-OC1	LSBH15KTL3-OC1	LSBH17KTL3-OC1
Input	Max. DC Input Power	7800W	10400W	13000W	15600W	19500W	22600W
	Max. DC Input Voltage	1100V					
	Max. DC Input Current	18/18A				18/30A	
	MPPT Voltage Range	180~1000V					
	Recommended Working Voltage	650V					
	MPPT Number	2					
	Max. Input Strings per MPPT	1/1				1/2	
	Output	Rated Output Power	6000W	8000W	10000W	12000W	15000W
Max. AC Power		6.6kVA	8.8kVA	11kVA	13.2kVA	16.5kVA	18.7kVA
Max. Output Current		10A	13.3A	16.7A	20A	25A	28.3A
Rated Power Grid Voltage		400V					
Power Grid Voltage Range		310~480Vac					
Rated Power Grid Frequency		50Hz/60Hz					
Grid Frequency Range		45~55Hz/55~65Hz					
THD		<2% (under rated power)					
Power Factor		>0.99 (under rated power) / Adjustable range0.8(leading)~0.8(lagging)					
DC Component		<0.5% (under rated power)					
System Data		Max. Efficiency	98.5%	98.5%	98.6%	98.7%	98.7%
	Euro. efficiency	98%	98%	98.2%	98.1%	98.2%	98.2%
	Humidity	0~100%, no condensation					
	Cooling	Fan					
	Ambient Temperature Range	-25~+60℃					
	Consumption During Night	<1W					
	Altitude	4000m					
	Display	LED/LCD (optional)					
	Communication Interface	RS485/GPRS/Wifi (optional)					
Mechanical Data	Size	427x510x190mm				427x439x212mm	
	Weight	15kg				18kg	
	Protection Level	IP66					
Conforming Standards	Standards for Grid Connection	NB/T 32004-2018；IEC61727					
	Safety Standard	NB/T 32004-2018；EC 62109-1/2					
	EMC	IEC61000-6-2/4					

Product Model		LSBH20KTL3-OC1	LSBH23KTL3-OC1	LSBH25KTL3-OC1	LSBH28KTL3-OC1	LSBH30KTL3-OC1
Input	Max. DC Input Power	26000W	29900W	32500W	36400W	36000W
	Max. DC Input Voltage	1100V				
	Max. DC Input Current	30/30A		36/30A	36/36A	36/36A
	MPPT Voltage Range	180~1000V				
	Recommended Working Voltage	650V				
	MPPT Number	2				
	Max. Input Strings per MPPT	2/2				2/2
Output	Rated Output Power	20000W	23000W	25000W	28000W	30000W
	Max. AC Power	22kVA	25.3kVA	27.5kVA	30.8kVA	33kVA
	Max. Output Current	32A	36.5A	42A	45A	48A
	Rated Power Grid Voltage	400V				
	Power Grid Voltage Range	310~480Vac				
	Rated Power Grid Frequency	50Hz/60Hz				
	Grid Frequency Range	45~55Hz/55~65Hz				
	THD	<2% (under rated power)				
	Power Factor	>0.99 (under rated power) / Adjustable range0.8(leading)~0.8(lagging)				
	DC Component	<0.5% (under rated power)				
System Data	Max. Efficiency	98.7%	98.8%	98.8%	98.8%	98.8%
	Euro. efficiency	98.2%	98.2%	98.2%	98.2%	98.2%
	Humidity	0~100%, no condensation				
	Cooling	Fan				
	Ambient Temperature Range	-25~+60℃				
	Consumption During Night	<1W				
	Altitude	4000m				
	Display	LED/LCD (optional)				
	Communication Interface	RS485/GPRS/Wifi (optional)				
Mechanical Data	Size	427*439*212mm				
	Weight	18kg				
	Protection Level	IP66				
Conforming Standards	Standards for Grid Connection	NB/T 32004-2018；IEC61727				
	Safety Standard	NB/T 32004-2018；EC 62109-1/2				
	EMC	IEC61000-6-2/4				

Remarks: Specifications are subject to change without notice; Special voltage and power requirements can be customized designed



LSBH (18-30)KTL3LV-OC1

On-grid PV Inverter



Items	LSBH18KTL3LV-OC1	LSBH20KTL3LV-OC1	LSBH25KTL3LV-OC1	LSBH30KTL3LV-OC1
DC Input Data				
Max. DC input power	27000W	30000W	37500W	45000W
Max. DC input voltage	1000VDC			
Max. DC input current	30/30/30/30A		36/36/20/20A	
MPPT voltage range	180~1000VDC			
Recommended working voltage	650VDC			
MPPT number	4			
Max. input strings per MPP tracker	2			



On-grid PV Inverter

Items	LSBH18KTL3LV-OC1	LSBH20KTL3LV-OC1	LSBH25KTL3LV-OC1	LSBH30KTL3LV-OC1
AC Output Data				
Rated output power	18000W	20000W	25000W	30000W
Max. AC power	19.8kVA	22kVA	27.5kVA	33kVA
Max. output current	51.9A	57.7A	72.1A	86.6A
Rated power grid voltage	400V			
Power grid voltage range	310-480			
Rated power grid frequency	50Hz/60Hz			
Grid frequency range	45~55Hz/55~65Hz			
THD	<2%(Under the rated power)			
Power factor	>0.99(Under rated power)/Adjustable range0.8(Leading)~0.8(Lagging)			
DC component	<0.5%(Under rated power)			
System Data				
Max. Efficiency(%)	98.7%	98.7%	98.7%	98.7%
Euro. efficiency(%)	98.2%	98.1%	98.2%	98.2%
Humidity	0~100% , No condensation			
Cooling	Fan			
Allowed ambient temperature range	-25°C~+60°C			
Consumption during night	<1W			
Altitude allowed	4000m			
Communication interface	RS485/WIFI/GPRS(optional)			
Display	LED/LCD(optional)			
Mechanical Data				
Size (width x height x depth)	610mm×564mm×218mm			
Weight	39kg			
Protection class	IP66			
Conforming standards				
Standards for grid connection	NB/T32004-2018;IEC61727			
Safety standard	NB/T32004-2018; IEC62109-1/2			
EMC	IEC61000-6-2/4			

Remarks: Specifications are subject to change without notice.



PV Inverter

LSBH (33~50) KTL3-OC1

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PV Inverter

Product Model		LSBH33KTL3-OC1	LSBH36KTL3-OC1	LSBH40KTL3-OC1	LSBH50KTL3-OC1
Input	Max. DC Input Power	39600W	43200W	48000W	60000W
	Max. DC Input Voltage	1100V			
	Max. DC Input Current	36A/36A/20A	36A/36A/20A/20A		
	MPPT Voltage Range	200~1000Vdc			
	Recommended Working Voltage	650V			
	MPPT Number	3	4		
	Max. Input Strings per MPPT	2/2/2	2/2/2/2		
	Output	Rated Output Power	33000W	36000W	40000W
Max. AC Power		36.3kVA	39.6kVA	44kVA	55kVA
Max. Output Current		53A	56A	65A	80A
Rated Power Grid Voltage		400V			
Power Grid Voltage Range		310~480Vac			
Rated Power Grid Frequency		50Hz/60Hz			
Grid Frequency Range		45~55Hz/55~65Hz			
THD		<2% (under rated power)			
Power Factor		>0.99 (under rated power) / Adjustable range0.8(leading)~0.8(lagging)			
DC Component	<0.5% (under rated power)				
System Data	Max. Efficiency	98.6%	98.6%	98.6%	98.7%
	Euro. efficiency	98.1%	98.1%	98.2%	98.2%
	Humidity	0~100%, no condensation			
	Cooling	Fan			
	Ambient Temperature Range	-25~+60℃			
	Consumption During Night	<1W			
	Altitude	4000m			
	Display	LED /LCD (optional)			
	Communication Interface	RS485/GPRS/Wifi (optional)			
Mechanical Data	Size	610 x 564 x 218mm			
	Weight	37kg			39kg
	Protection Level	IP66			
Conforming Standards	Standards for Grid Connection	NB/T 32004-2018； IEC61727			
	Safety Standard	NB/T 32004-2018； EC 62109-1/2			
	EMC	IEC61000-6-2/4			

Remarks: Specifications are subject to change without notice; Special voltage and power requirements can be customized designed



LSBH (36-50)KTL3LV-OC1

On-grid PV Inverter

Items	LSBH36KTL3LV-OC1	LSBH40KTL3LV-OC1	LSBH50KTL3LV-OC1
DC Input Data			
Max. DC input power	54000W	60000W	75000W
Max. DC input voltage	1000VDC		
Max. DC input current	40/40/20/40/40/20A		40/40/20/20/40/40/20/20A
MPPT voltage range	180~1000VDC		
Recommended Max Power working voltage	550~850VDC		
MPPT number	6		8
Max. input strings per MPP tracker	2		



On-grid PV Inverter

Items	LSBH36KTL3LV-OC1	LSBH40KTL3LV-OC1	LSBH50KTL3LV-OC1
AC Output Data			
Rated output power	36000W	40000W	50000W
Max. AC power	39.6kVA	44kVA	55kVA
Max. output current	103.9A	115.4A	144.3A
Rated power grid voltage	43/(N)/PE, 220V		
Power grid voltage range	170-265Vac		
Rated power grid frequency	50Hz/60Hz		
Grid frequency range	47.5~52.5Hz/57.5~62.5Hz		
THD	<3%(Under the rated power)		
Power factor	>0.99(Under rated power)/Adjustable range0.8(Leading)~0.8(Lagging)		
DC component	<0.5%(Under rated power)		
System Data			
Max. Efficiency(%)	98.7%	98.7%	98.8%
Euro. efficiency(%)	98.1%	98.2%	98.2%
Humidity	0~100%, No condensation		
Cooling	Fan		
Allowed ambient temperature range	-25°C~+60°C		
Consumption during night	<1W		
Altitude allowed	4000m		
Communication interface	RS485/WIFI/GPRS((optional)		
Display	LED/LCD(optional)		
Mechanical Data			
Size (width x height x depth)	1160mm×611mm×286mm		
Weight	92kg		
Protection class	IP66		
Conforming standards			
Standards for grid connection	NB/T32004-2018;IEC61727		
Safety standard	NB/T32004-2018; IEC62109-1/2		
EMC	IEC61000-6-2/4		

Remarks: Specifications are subject to change without notice.



LSBH (225-230)KTL3HV-OC1

On-grid PV Inverter

Items	LSBH225KTL3HV-OC1	LSBH230KTL3HV-OC1
Import		
Maximum DC input power	337.5kW	
Maximum DC input voltage	1500VDC	
Maximum DC input current	40A * 12A	
MPPT Voltage Range	500~1500VDC	
Recommended MPP Operating Voltage	1080VDC	
MPPT quantity	12	
Max. input string number per MPPT	2	



On-grid PV Inverter

Items	LSBH225KTL3HV-OC1	LSBH230KTL3HV-OC1
Output		
Rated output power	225kW	230kW
Maximum output power	247.5kW	253kW
Maximum output current	178.7A	182.6A
Rated Grid Voltage	800V	
Power Grid Voltage Range	640~920Vac	
Rated power grid frequency	50Hz/60Hz	
Power grid frequency range	45~55Hz/55~65Hz	
THD	<2% (rated power rate)	
Power factor	> 0.99 (rated power) / adjustable range 0.8 (advance) ~0.8 (Lagging lag)	
DC component	<0.5% (rated power)	
System		
Max. Efficiency	99.02%	
Euro. efficiency	98.52%	
Humidity	0~100% , with no condensation	
Cooling	Intelligent speed conditioning air cooling	
Allowed ambient temperature range	-25°C~+60°C	
Consumption during night	<2W	
Max. working altitude	5000m (> 4000m drop)	
Display	LED / LCD (optional)	
Communication interface	RS485 / WIFI / GPRS (Optional)	
Mechanical		
Size (width x height x depth)	1008mm×700mm×351mm	
Weight	107kg	
Protection class	IP66	
Standard		
Grid-connected standards	NB/T32004-2018;IEC61727	
Safety standards	NB/T32004-2018; IEC62109-1/2	
electromagnetic compatibility	IEC61000-6-2/4	

Remarks: Specifications are subject to change without notice.



Residential Off-grid Inverter

- Dual MCU design, excellent performance;
 - Power frequency, adapt to various types of loads;
 - Comprehensive digital LCD display, easy to understand the working status of the machine
- Wide input voltage range, high-precision output, fully automatic voltage stabilization function
 - LVD , HVD , charging voltage and turn off voltage, battery type/charging current settable
 - Toroidal transformer, low no-load loss

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Residential Off-grid Inverter

Product Model	LSOT1K-C1	LSOT1K-C2	LSOT2K-C2	LSOT2K-C4	LSOT3K-C2	LSOT3K-C4	LSOT4K-C4	LSOT5K-C4	LSOT6K-C4
Rated Power	1000W		2000W		3000W		4000W	5000W	
Battery Voltage	12V	24V	24V	48V	24V	48V	48V		
Size (W*D*H mm)	540x265x180						580x340x210		
Package Size (W*D*H mm)	580x310x220						620x390x270		
Net Weight (kg)	10.5		15		17.5		20	24	
Gross Weight (kg)	13		17.5		20		23	27	
Input									
Phase	L+N+G								
AC Input Range	220V: 170-275VAC								
Frequency	45Hz~55Hz								
Output									
Voltage	Inverter mode: 220VAC±5%; AC mode: 220VAC±10%;								
Frequency (AC mode)	Auto-detect								
Frequency (inverter mode)	50Hz±1%								
Over Load Capacity (AC mode)	(100%~110%: 10min, 110%~130%: 1min, >130%: 1s)								
Over Load Capacity (inverter mode)	(100%~110%: 30s, 110%~130%: 10s, >130%: 1s)								
Crest Ratio	3:1 max								
Transfer Time	<10ms (typical loads)								
Waveform	Pure sine wave								
Efficiency	>85% (80%resistive loads)								
Protection Function	Battery overvoltage protection, battery undervoltage protection, overload protection, short circuit protection, overtemperature protection, etc.								
Cooling Method	Fans cooling								
Environmental Conditions									
Operation Temperature	0~40 ℃ (battery life decreases at ambient temperatures above 25 degrees Celsius)								
Operation Humidity	<95% without condensing								
Operation Altitude	<1000m (with increase of 100m, it will reduce output of 1%, max 5000m)								
Noise	<58dB (distance to machine 1m)								
Management									
Display	LCD+LED								
Communication Interface	RS232 (optional)								

Remarks: Specifications are subject to change without notice; Special voltage and power requirements can be customized designed

Product Model	LSOT1K-U1	LSOT1K-U2	LSOT2K-U2	LSOT2K-U4	LSOT3K-U2	LSOT3K-U4
Rated Power	1000W		2000W		3000W	
Battery Voltage	12V	24V	24V	48V	24V	48V
Size (W*D*H mm)	540x265x180					
Package Size (W*D*H mm)	580x310x220					
Net Weight (kg)	10.5		15		17.5	
Gross Weight (kg)	13		17.5		20	
Input						
Phase	L+N+G					
AC Input Range	110V: 85-138VAC					
Frequency	55Hz~65Hz					
Output						
Voltage	Inverter mode: 110VAC±5%; AC mode: 110VAC±10%;					
Frequency (AC mode)	Auto-detect					
Frequency (inverter mode)	60Hz±1%					
Over Load Capacity (AC mode)	(100%~110%: 10min, 110%~130%: 1min, >130%: 1s)					
Over Load Capacity (inverter mode)	(100%~110%: 30s, 110%~130%: 10s, >130%: 1s)					
Crest Ratio	3:1 max					
Transfer Time	<10ms (typical loads)					
Waveform	Pure sine wave					
Efficiency	>85% (80%resistive loads)					
Protection Function	Battery overvoltage protection, battery undervoltage protection, overload protection, short circuit protection, overtemperature protection, etc.					
Cooling Method	Fans cooling					
Environmental Conditions						
Operation Temperature	0~40 ℃ (battery life decreases at ambient temperatures above 25 degrees Celsius)					
Operation Humidity	<95% without condensing					
Operation Altitude	<1000m (with increase of 100m, it will reduce output of 1%, max 5000m)					
Noise	<58dB (distance to machine 1m)					
Management						
Display	LCD+LED					
Communication Interface	RS232 (optional)					

Remarks: Specifications are subject to change without notice; Special voltage and power requirements can be customized designed

Product Model	LSOT1K-D1	LSOT1K-D2	LSOT2K-D2	LSOT2K-D4	LSOT3K-D2	LSOT3K-D4
Rated Power	1000W		2000W		3000W	
Battery Voltage	12V	24V	24V	48V	24V	48V
Size (W*D*H mm)	540x265x180					
Package Size (W*D*H mm)	580x310x220					
Net Weight (kg)	10.5		15		17.5	
Gross Weight (kg)	13		17.5		20	
Input						
Phase	L+N+G					
AC Input Range	120V: 85-138VAC					
Frequency	55Hz~65Hz					
Output						
Voltage	Inverter mode: 120VAC±5%; AC mode: 120VAC±10%;					
Frequency (AC mode)	Auto-detect					
Frequency (inverter mode)	60Hz±1%					
Over Load Capacity (AC mode)	(100%~110%: 10min, 110%~130%: 1min, >130%: 1s)					
Over Load Capacity (inverter mode)	(100%~110%: 30s, 110%~130%: 10s, >130%: 1s)					
Crest Ratio	3:1 max					
Transfer Time	<10ms (typical loads)					
Waveform	Pure sine wave					
Efficiency	>85% (80%resistive loads)					
Protection Function	Battery overvoltage protection, battery undervoltage protection, overload protection, short circuit protection, overtemperature protection, etc.					
Cooling Method	Fans cooling					
Environmental Conditions						
Operation Temperature	0~40 ℃ (battery life decreases at ambient temperatures above 25 degrees Celsius)					
Operation Humidity	<95% without condensing					
Operation Altitude	<1000m (with increase of 100m, it will reduce output of 1%, max 5000m)					
Noise	<58dB (distance to machine 1m)					
Management						
Display	LCD+LED					
Communication Interface	RS232 (optional)					

Remarks: Specifications are subject to change without notice; Special voltage and power requirements can be customized designed



Residential Off-grid Inverter

Features

- The front and rear stage dual control chip and drive chip adopt the new imported intelligent control chip, better anti-interference ability,more stable and durable performance.
- The power device adopts the new imported IGBT-MOS tube, with guaranteed quality, stronger performance and stronger impact resistance.
- The heat dissipation effect of independent aluminum alloy radiator is better, so as to achieve the purpose of higher conversion efficiency.
- Heat dissipation fan adopts double ball high-speed fan for faster heat dissipation and longer service life.
- The transformer coil adopts a pure copper strip winding system,which ensures a high conversion efficiency.
- USB charging function of the device built-in fast charging protocol chip to improve the charging speed, and there is a built-in output over voltage protection circuit to protect our charging equipment.

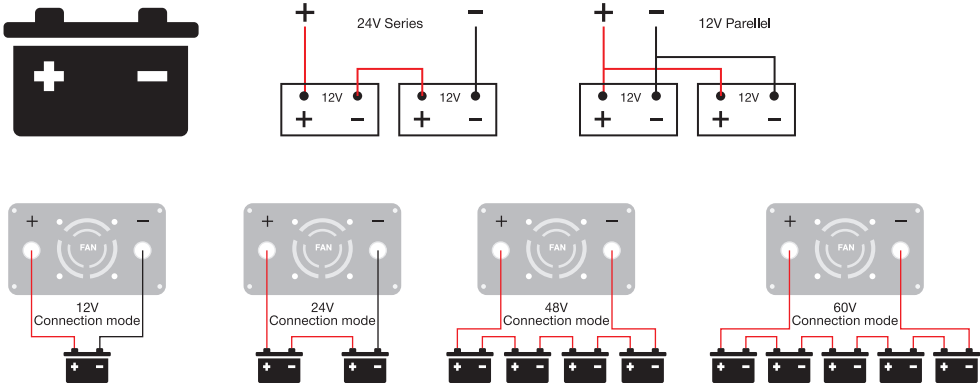
Appearance

- Aluminum alloy shell, fireproof
- LED display
- One button switch
- QC2.0/5V USB interface
- AC socket

Product Model	LSOT300	LSOT600	LSOT1K	LSOT1K5	LSOT2K	LSOT2K5	LSOT3K
Output Power	300W	600W	1000W	1500W	2000W	2500W	3000W
Peak Power	600W	1200W	2000W	3000W	4000W	5000W	6000W
Input Voltage	12V/24V/48V/60V						
Output Voltage	100V/110V/120V/220V/230V/240V						
Output Frequency	50Hz/60Hz						
Output Wave	Pure sine wave						
Convert Efficiency	95%						
Dimensions	230×120×70mm	250×119×70mm	310×216×95mm	350×216×95mm	426×216×95mm	426×216×95mm	520×218×95mm
Voltage							
12V Series	Operating voltage range 9.5V-16V						
24V Series	Operating voltage range 20V-30V						
48V Series	Operating voltage range 40V-60V						
60V Series	Operating voltage range 48V-72V						

Remarks: Specifications are subject to change without notice.

Battery connection diagram



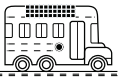


LGA-HJ Series
Off-grid Inverter

LGA-HJ series is a high-frequency pure sine wave inverter that can convert 12/24/48VDC to 220/230/240VAC (or 100/110/120VAC) and power the AC loads. It is designed according to the international standard with higher quality, reliability, and safety. Ranging from 350W to 5000W, LGA-HJ series is compatible with lithium-ion battery perfectly and suits any situation of DC to AC, such as RVs, boats, residentials, and places where require high quality of electrical power.

Features

- Pure sine wave output
- Input to output electrical isolation
- Digital dual closed-loop control of voltage and current
- Input surge current suppression for lithium battery systems
- Output power factor up to 1
- Simple system wiring & 180 degrees rotating LCD
- Input Protection: Reverse polarity, Low-voltage, Over-voltage
- Output Protection: Overload, Short circuit, Overheating
- Phone and PC remote control through RS485 port
- Extra external switch port
- Safety (EN/IEC62109) & EMC approved by international standards



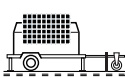
Solar Car



Solar Home



Solar Boat



Solar Power Generator



Parameters	LGA-351ALC1-HJ	LGA-351BLC1-HJ	LGA-501ALC1-HJ	LGA-501BLC1-HJ	LGA-102ALC1-HJ	LGA-102BLC1-HJ	LGA-102DLC1-HJ
Continuous Output Power	350W@35°C@ Rated input voltage		500W@35°C@ Rated input voltage		1000W@35°C@ Rated input voltage		
Surge Power	700W@5S		1000W@5S		2000W@5S		
Surge Current When Power On	<30A		<50A		<100A		<35A
Output Voltage	100VAC/110VAC (±3%); 120VAC (-7%~+3%)				100VAC/110VAC (±3%); 120VAC (-7%~+3%)		100VAC/110VAC /120VAC (±3%)
Output Frequency	50/60Hz ± 0.2%						
Output Wave	Pure Sine Wave						
Output Distortion THD	THD ≤ 4% (Resistive load)	THD ≤ 3% (Resistive load)	THD ≤ 4% (Resistive load)		THD ≤ 4% (Resistive load)	THD ≤ 3% (Resistive load)	THD ≤ 3% (Resistive load)
Load Power factor	0.2~1 (Lad power ≤ Continuous output power)						
Rated Input Voltage	12VDC	24VDC	12VDC	24VDC	12VDC	24VDC	48VDC
Input Voltage Range	10.8~16.0VDC	21.6~32VDC	10.8~16.0VDC	21.6~32VDC	10.8~16.0VDC	21.6~32.0VDC	43.2~64.0VDC
Rated Output Efficiency①	>87.0%	>90.0%	>87.5%	>90.0%	>87.0%	>90.0%	>91.0%
Max. Output Efficiency②	>89.0% (70% loads)	>90.5% (70% loads)	>90.0% (40% loads)	>91.0% (40% loads)	>92.0% (40% loads)	>92.5% (30% loads)	>92.5% (40% loads)
Idle Current	<0.15A	<0.10A	<0.15A	<0.10A	<0.2A	<0.15A	<0.1A
No-load Current	<0.8A	<0.4A	<0.8A	<0.5A	<0.8A	<0.6A	<0.5A
USB Output	5VDC/Max.1A						—
RS485 com.prt	5VDC/200mA						
Input Terminal	M6						
Dimension (L*W*H)	229×163.5×75mm (with decorative cover) 229×160×73mm (without decorative cover)		286×163.5×78mm (with decorative cover) 286×160×78mm (without decorative cover)		371×231.5×123mm		332×231.5×123 mm
Mounting Size (L*W)	205×75mm		262×75mm		345×145mm		306×145mm
Mounting Hole Size	Φ5mm				Φ6mm		
Net Weight	1.47kg		2.00kg		5.15kg	4.86kg	4.36kg

① It is measured in the condition of continuous output power and rated input voltage.
② It means the max. output efficiency when the inverter is connected with different loads under the rated input voltage.
Remarks: Specifications are subject to change without notice.

Parameters	LGA-152ALC1-HJ	LGA-152BLC1-HJ	LGA-152DLC1-HJ	LGA-202ALC1-HJ	LGA-202BLC1-HJ	LGA-202DLC1-HJ
Continuous Output Power	1500W@35°C@ Rated input voltage			2000W@35°C@ Rated input voltage		
Surge Power	3000W@5S			4000W@5S		
Surge Current When Power On	<100A		<50A	<100A		<50A
Output Voltage	100VAC/110VAC (±3%); 120VAC (-7%~+3%)			100VAC/110VAC (±3%); 120VAC (-7%~+3%)		
Output Frequency	50/60Hz ± 0.2%					
Output Wave	Pure Sine Wave					
Output Distortion THD	THD ≤ 4% (Resistive load)			THD ≤ 5% (Resistive load)	THD ≤ 4% (Resistive load)	THD ≤ 4% (Resistive load)
Load Power factor	0.2~1 (Lad power ≤ Continuous output power)					
Rated Input Voltage	12VDC	24VDC	48VDC	12VDC	24VDC	48VDC
Input Voltage Range	10.8~16.0VDC	21.6~32.0VDC	43.2~64.0VDC	10.8~16.0VDC	21.6~32.0VDC	43.2~64.0VDC
Rated Output Efficiency①	>88.0%	>88.0%	>90.0%	>85.0%	>88.0%	>88.0%
Max. Output Efficiency②	>93.0% (30% loads)	>92.5% (30% loads)	>92.0% (30% loads)	>92.0% (30% loads)	>92.0% (30% loads)	>93.0% (30% loads)
Idle Current	<0.2A	<0.15A	<0.1A	<0.2A	<0.15A	<0.1A
No-load Current	<1.0A	<0.9A	<0.5A	<1.2A	<0.9A	<0.5A
USB Output	5VDC/Max.1A		—	5VDC/Max.1A		—
RS485 com.prt	5VDC/200mA					
Input Terminal	M6			M10	M6	
Dimension (L *W *H)	387×231.5×123mm			420×231.5×123 mm	421×231.5×123mm	
Mounting Size (L *W)	361×145mm			395×145mm		
Mounting Hole Size	Φ6mm					
Net Weight	5.90kg	5.70kg	5.53kg	7.45kg	6.28kg	6.20kg

① It is measured in the condition of continuous output power and rated input voltage.

② It means the max. output efficiency when the inverter is connected with different loads under the rated input voltage.

Remarks: Specifications are subject to change without notice.

Parameters	LGA-302ALC1-HJ	LGA-302BLC1-HJ	LGA-302DLC1-HJ	LGA-402DLC1-HJ
Continuous Output Power	3000W@35°C@ Rated input voltage			4000W@35°C @ Rated input voltage
Surge Power	4800W@5S	6000W@5S	6000W@5S	8000W@5S
Surge Current When Power On	<100A	<100A	<65A	<65A
Output Voltage	100VAC/110VAC (±3%); 120VAC (-7%~+3%)			
Output Frequency	50/60Hz ± 0.2%			
Output Wave	Pure Sine Wave			
Output Distortion THD	THD ≤ 4% (Resistive load)	THD ≤ 5% (Resistive load)	THD ≤ 4% (Resistive load)	THD ≤ 4% (Resistive load)
Load Power factor	0.2~1 (Lad power ≤ Continuous output power)			
Rated Input Voltage	12VDC	24VDC	48VDC	48VDC
Input Voltage Range	10.8~16.0VDC	21.6~32.0VDC	43.2~64.0VDC	43.2~64VDC
Rated Output Efficiency①	>85.0%	>87.0%	>89.5%	>88.0%
Max. Output Efficiency②	>93.0% (30% loads)	>91.5% (30% loads)	>93.5% (30% loads)	>93.0% (30% loads)
Idle Current	<0.2A	<0.15A	<0.1A	<0.1A
No-load Current	<1.6A	<1A	<0.4A	<0.6A
USB Output	5VDC/Max.1A	5VDC/Max.1A	—	—
RS485 com.prt	5VDC/200mA			
Input Terminal	M10		M6	
Dimension (L *W *H)	550×274×148mm	521×274×148mm	516×2315×123mm	521×274×148mm
Mounting Size (L *W)	525×145mm	495×145mm	490×145mm	495×145mm
Mounting Hole Size	Φ6mm			
Net Weight	11.60kg	9.00kg	7.35kg	10.65kg

Environment Parameters		Certification	
Work Temperature	-20°C~+60°C (Referto the Derating Curve)	safety	EN/IEC62109-1, UL1741, UL458, CSA C22.2#107.1
Storage Temperature	-35°C~+70°C	EMC (Electromagnetic compatibility)	EN61000-6-1/EN61000-6-3 FCC 47 CFR Part15, Subpart B
Relative Humidity	≤95% (N.C)	ROHS	IEC62321-3- 1
Enclosure	IP20	---	

① It is measured in the condition of continuous output power and rated input voltage.

② It means the max. output efficiency when the inverter is connected with different loads under the rated input voltage.

Remarks: Specifications are subject to change without notice.

LESSO

LESSO

Residential Off-grid Inverter with MPPT

Product Model		LSOTH3KTL-P2	LSOTH3K5TL-P2	LSOTH5KTL-P2	LSOTH5K5TL-P2	LSOTH6K2TL-P2	LSOTH8KTL-P2	LSOTH10KTL-P2	LSOTH11KTL-P2
Input	Input sources	L+N+PE							
	Rated input voltage	220/230/240VAC							
	Voltage range	90-280VAC±3V (APL Mode) 170-280VAC±3V (UPS Mode)							
	Frequency	50Hz/60Hz (Auto Adaptive)							
Output	Rated power (battery inverter)	3000W	3500W	5000W	5500W	6200W	8000W	10000W	11000W
	Rated power (PV inverter)	3000W	4500W	6500W	6500W	6500W	11000W	11000W	11000W
	Output voltage	220/230/240VAC±5%							
	Output frequency	50/60Hz±0.1%							
	Waveform	Pure Sine Wave							
	Transfer time (adjustable)	Computers(UPS Mode)10ms , Appliance(APL Mode)20ms							
	Peak power	6000VA	7000VA	10000VA	11000VA	12400VA	16000VA	20000VA	22000VA
	Over load ability	Battery Mode:11s@105%~150% Load, 2s@150%~200% Load, 400ms@>200% Load							
Grid-connected operation	Output Voltage	220/230/240VAC±5%							
	Feed into the grid Voltage range	195-253VA							
	Feed into the grid frequency range	49-51±1Hz/59-61±1Hz							
	Nominal output current	13A	15.7A	21.7A	23.9A	26.9A	34.7A	43.4A	47.8A
	Power factor range	> 0.99							
	Max. conversion efficiency (DC/AC)	98%							
Battery	Battery voltage	24Vdc	24Vdc	48Vdc	48Vdc	48Vdc	48Vdc	48Vdc	48Vdc
	Constant charging voltage	28.2Vdc	28.2Vdc	56.4Vdc	56.4Vdc	56.4Vdc	56.4Vdc	56.4Vdc	56.4Vdc
	Floate charging voltage	27Vdc	27Vdc	54Vdc	54Vdc	54Vdc	54Vdc	54Vdc	54Vdc
Charges	PV charging mode	MPPT	MPPT	MPPT	MPPT	MPPT	MPPT Dual MPPT	MPPT Dual MPPT	MPPT Dual MPPT
	Max PV input power	5000W	5000W	6200W	7500W	7500W	2*5500W	2*5500W	2*5500W
	MPPT tracking range	60-500Vdc	60-500Vdc	60-500Vdc	60-500Vdc	60-500Vdc	90-500Vdc	90-500Vdc	90-500Vdc
	Best voltage	300-400Vdc	300-400Vdc	300-400Vdc	300-400Vdc	300-400Vdc	300-400Vdc	300-400Vdc	300-400Vdc
	Max PV input voltage	500Vdc	500Vdc	500Vdc	500Vdc	500Vdc	500Vdc	500Vdc	500Vdc
	PV max input current	18A	18A	18A	27A	27A	18A/18A	18A/18A	18A/18A
	Max PV charging current	100A	120A	100A	100A	120A	150A	150A	150A
	Max AC charging current	60A	100A	60A	100A	100A	150A	150A	150A
	Max charging current	100A	120A	100A	100A	120A	150A	150A	150A
	Display	LCD interface	CAN display runing mode/load/input/output, etc						
Interface	RS232	Baud rate 2400							
	Communication port	Lithium Battery BMS Communication Card WifiCard, Dry Contact							
	Parallel connect interface	No parallel function		Parallel machine (network) function					
Environment	Operating temperature	-10-50°C							
	Humidity	20%-95% (non-condensing)							
	Storage temperature	-15-60°C							
	Altitude	Altitude not over 1000m, derating over 1000m, max 4000m, refer to IEC62040							
	Noise	≤50db							
Standards and certifiacion		EN-IEC 60335-1, ENIEC 60335-2-29, IEC 62109-1							

1: The paralel addition of inverters requires the addition of accesories and paralel boards. For more information, please contact the sales manager.
Remarks: Specifications are subject to change without notice.Special voltage and power requirements can be customized designed.The specific appearance is subject to the actual product.

Residential Off-grid Inverter With MPPT

Feature:

- Pure sine wave inverter

Built-in MPPT solar charge controller

Selectable charging current based on applications

Configurable AC/Solar input priority via LCD setting

Compatible to mains voltage or generator power
- Auto restart while AC is recovering

Overload and short circuit protection

Smart battery charger design for optimized battery performance

Cold start function

Parallel operation with up to 6 units (optional)

V1.3

Guangdong Lesso Energy Storage Technology Co., Ltd
Daba Industrial Area, Longjiang Town, Foshan Clty, Guangdong Province, China

energy@lessosolar.com www.lessosolar.com



LSOTH1-6KS-M01

Off-grid Inverter with MPPT

- >> Models:
- LSOTH1KS-M01

LSOTH1K5S-M01

LSOTH2KS-M01

LSOTH3KS-M01

LSOTH4KS-M01

LSOTH5KS-M01

LSOTH6KS-M01



Feature

- Split phase output

• Toroidal low-loss transformer, high inverter efficiency, pure sine wave output

• Intelligent LCD integrated display

• New appearance design, built-in photovoltaic MPPT controller

• Mains charging current is adjustable, allowing users to configure battery capacity more flexibly

• Three working modes can be set (AC mode, battery mode, energy saving mode)

• The startup peak power is more than 3 times, with fully automatic and complete protection functions

• Added fault code query function to facilitate users to monitor operating status in real time

• Supports diesel generators and can be used in harsh power environments

• Suitable for both industrial and residential scenarios, wall-mounted design, easy to install



LSOTH Off-grid Inverter with MPPT

Type		LSOTH1KS-M01	LSOTH1K5S-M01	LSOTH2KS-M01	LSOTH3KS-M01	LSOTH4KS-M01	LSOTH5KS-M01	LSOTH6KS-M01
Rated Power		1000W	1500W	2000W	3000W	4000W	5000W	6000W
Peak Power(20ms)		3000VA	4500VA	6000VA	9000VA	12000VA	15000VA	18000VA
Start Motor		1HP	1.5HP	2HP	3HP	3HP	4HP	4HP
Battery Voltage		12/24/48VDC			24/48VDC	24/48VDC	48VDC	
Max AC charging current		0~30A (Depending on model)						
Size(L * W * Hmm)		500x300x140					530x335x150	
Packing Size(L * W * Hmm)		565x395x225					605x420x235	
N.W.(kg)		12	13.5	18	20	22	24	26
G.W.(kg)		13.5	15	19.5	21.5	24	26	28
Installation Method		Wall-Mounted						
Input	DC Input Voltage Range	10.5-15VDC (Single battery voltage)						
	AC Input Voltage	110V /120AC or 220VAC/240AC						
	AC Input Voltage Range	85VAC~138VAC (110VAC) / 95VAC~148VAC (120VAC) / 170VAC~275VAC(220VAC) / 190VAC~295VAC(240VAC)						
	AC Input Frequency Range	45Hz~55Hz(50Hz) / 55Hz~65Hz(60Hz)						
	AC charging method	Three-stage (constant current, constant voltage, floating charge)						
Output	Efficiency(Battery Mode)	≥85%						
	Output Voltage(Battery Mode)	110VAC or 120VAC ; 220VAC or 240AC						
	Output Frequency(Battery Mode)	50/60Hz±1%						
	Output Wave(Battery Mode)	Pure Sine Wave						
	Efficiency(AC Mode)	≥99%						
	Output Voltage(AC Mode)	110VAC or 120VAC ; 220VAC or 240AC						
	Output Frequency(AC Mode)	Follow input						
	Output waveform distortion (Battery Mode)	≤3% (Linear load)						
	No load loss(Battery Mode)	≤0.8% rated power						
	No load loss(AC Mode)	≤0.8% rated power						
	No load loss (Energy saving Mode)	≤10W						
Battery Type	VRLA Battery	Charge Voltage :14.2V; Float Voltage:13.8V (Single battery voltage)						
	Customize battery	Charging and discharging parameters of different types of batteries can be customized according to user requirements (charging and discharging parameters of different types of batteries can be set through the operation panel)						
Protection		Battery under voltage alarm , Battery under voltage protection , Battery over voltage alarm , Battery over voltage protection Battery over voltage recovery voltage , Overload power protection , Inverter output short circuit protection , Temperature protectionnel)						
Alarm	A	Normal working condition, buzzer has no alarm sound						
	B	Buzzer sounds 4 times per second when battery failure, voltage abnormality, overload protection						
	C	When the machine is turned on for the first time, the buzzer will prompt 5 when the machine is normal						
Solar controller	Charging current	2V/24V:40A; 48V:30A	12V/24V:60A; 48V:30A	12V/24V:60A; 48V:30A	60A	24V:60A; 48V:60Aor100A	60Aor100A	160Aor100A
	PV Input Voltage Range	15V-120V(12V System); 30V-120V(24V System); 60V-120V(48V System)						
	Max PV Input Voltage(Voc) (At the lowest temperature)	150V						
	PV Array Maximum Power	12V System: 560W (40A)/840W(60A); 24V System: 1120W(40A)/1680W(60A); 48V System: 1680W(30A)/3360W(60A)/5600W(100A)						
	Standby loss	≤3W						
	Maximum conversion efficiency	>95%						
Working Mode		Battery First/AC First/Saving Energy Mode (Can be set)						
Transfer Time		≤4ms						
Display		LCD						
Thermal method		Cooling fan in intelligent control						
Communication		RS485/APP (WIFI monitoring or GPRS monitoring)						
Environment	Operating temperature	-10°C~40°C						
	Storage temperature	-15°C~60°C						
	Noise	≤55dB						
	Elevation	2000m (More than derating)						
	Humidity	0%~95% ,No condensation						

Note: All specifications are subject to charge without prior notice

LESSO



Residential Off-grid Inverter
With MPPT

(Single Phase Power Frequency)

Models:

- LSOTH1KL
LSOTH2KL
LSOTH3KL
LSOTH4KL
LSOTH5KL
- LSOTH6KL
LSOTH8KL
LSOTH10KL
LSOTH12KL



LESSO

Residential Off-grid Inverter with MPPT
(Single Phase Power Frequency)

Product Model		LSOTH1KL	LSOTH2KL	LSOTH3KL	LSOTH4KL	LSOTH5KL	LSOTH6KL	LSOTH8KL	LSOTH10KL	LSOTH12KL
Rated Power		1kW	2kW	3kW	4kW	5kW	6kW	8kW	10kW	12kW
Max. Power		3kW	6kW	9kW	12kW	15kW	18kW	24kW	30kW	36kW
Rated Battery Voltage		12/24/48V	12/24/48V	12/24/48V	24/48V	24/48V	24/48V	48V	48V	48V
MPPT Control Module	Charge Current	60A	80A	80A	80A	80A	80A	80A	80A	80A
	PV Module Input	1 circuit (80A)								
	PV Input Operating Voltage	15V-180V (12V System) ;30V-180V (24V System) ; 60V-230V (48V System)								
	Maximum PV Array Power	60A: 720W(12V System) 1440W(24V System) ; 3840W (48V System) ;								
	Max. Charge Current (Adjustable)	OFF/30A/60A								
	Control Module Efficiency	≈99%								
	Unattended mode	MPPT Control Module continues to charge battery from PV module even when device is switched off								
Input	DC Input Voltage Range	10.5VDC-15VDC (12V voltage unit) (lead acid battery)								
	Mains AC Input Voltage Range	110Vac: (80-130)Vac; 220Vac: (160-260)Vac/(130-280)Vac (Adjustable)								
	Mains AC Input Frequency	45HZ-65HZ automatic match								
	Mains AC Charge Current (Adjustable)	ON/OFF (Adjustable)								
Output	Inverter output voltage waveform	Pure sine wave								
	Inverter output Efficiency	≈90%								
	Inverter output voltage	200V/210V/220V/230V240V (Adjustable)								
	Inverter output Frequency	50Hz/60Hz (Adjustable)								
	AC output voltage	110VAC±10%/220VAC±10%								
	AC output Frequency	Automatic tracking								
Operating Mode	Inverter operating mode	Mains AC priority mode, battery priority mode, ECO mode, unattended mode, power generation mode								
	Supported battery type	Lead acid battery / LiFePO ₄ battery / NiCoMn battery / Gel battery / Customer self-defined								
Battery Parameter	Battery defining parameter	Constant-voltage charging setting, float-voltage charging setting, battery recovery voltage setting, mains AC recovery voltage setting, low voltage alarm setting, low voltage protection setting								
	Battery charging mode	Lead acid battery: constant current, constant voltage, float charging LiFePO ₄ battery: constant current, constant voltage								
	Lithium type battery selection	LiFePO ₄ battery: 3.2V per unit NiCoMn battery: 3.7V per unit								
Protection	System Protection	Battery low voltage protection / Battery high voltage protection / Overload protection / Over heating protection,etc								
Display	LCD display	Mains AC status, DC-AC status, charging status, alarm								
	Operating display	Operating status, Input & output voltage, PV module operating information, Inverter operating information and etc.								
	Language	English/Chinese (Adjustable)								
Switch Time		< 5ms								
Cooling Method		Smart temperature control system								
Communication		RS232/RS485 (optional)								
Operating Temperature		(-10℃~40℃)								
Operating Altitude		≤3000m								
Product Dimensions		495*320*220mm						560*390*200mm		
Package Dimensions		600*380*290mm						715*420*316mm		
Net Weight (kg) (Approx)		11kg	16.5kg	19.5kg	22kg	25kg	28kg	31.5kg	36kg	40kg
Gross Weight (kg) (with wooden crate) (Approx)		14kg	19.5kg	22kg	25kg	28kg	31kg	36kg	41kg	45kg

Remarks: Specifications are subject to change without notice; Special voltage and power requirements can be customized designed

Guangdong Lesso Energy Storage Technology Co., Ltd

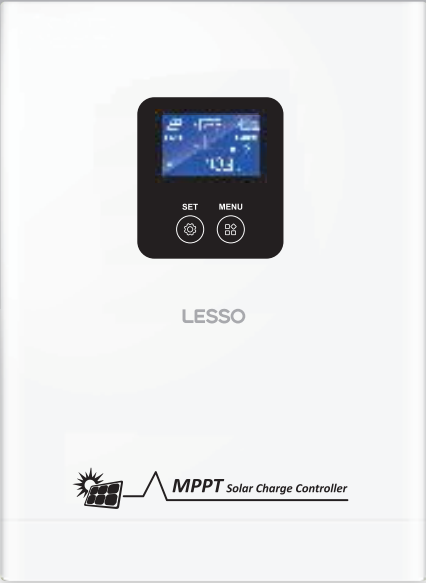
Daba Industrial Area, Longjiang Town, Foshan Clty, Guangdong Province, China

LESSO Solar

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LET-G10/20/30/40/50/60/80/100LF-XT
LET-D10/20/30/40/50/60/80/100HF-XT
MPPT Solar Charge Controller



Model	LET-G10/20/30LF-XT	LET-D10/20/30HF-XT	LET-G40/50/60LF-XT	LET-D40/50/60HF-XT	LET-G80/100LF-XT	LET-D80/100HF-XT
Rated Current	10/20/30A		40/50/60A		80/100A	
Rated System Voltage	12/24V	48V	12/24V	48V	12/24V	48V
Max PV Input Voltage	120V	180V	120V	180V	120V	180V
MPPT Tracking Voltage Range	12V system: 15V-80V; 24V system: 30V-100V; 48V system: 60V-140V;					
Recommended operating Voltage Range	12V system: 15V-30V; 24V system: 30V-60V; 48V system: 60V-90V;					
PV array Max power	12V system: 140W(10A)/280W(20A)/420W(30A)/560W(40A)/700W(50A)/840W(60A)/1120W(80A)/1400W(100A); 24V system: 280W(10A)/560W(20A)/840W(30A)/1120W(40A)/1400W(50A)/1680W(60A)/2240W(80A)/2800W(100A); 48V system: 560W(10A)/1120W(20A)/1680W(30A)/2240W(40A)/2800W(50A)/3360W(60A)/4480W(80A)/5600W(100A);					



MPPT Solar Charge Controller

Model	LET-G10/20/30LF-XT	LET-D10/20/30HF-XT	LET-G40/50/60LF-XT	LET-D40/50/60HF-XT	LET-G80/100LF-XT	LET-D80/100HF-XT
Battery Type	Lead acid battery/Lithium battery(Users can customize charging parameters for other types of batteries)					
Floating Voltage	12V system: 13.8V; 24V system: 27.6V; 48V system: 55.2V					
Charge Voltage	12V system: 14.2V; 24V system: 28.4V; 48V system: 56.8V					
Charging Protection Voltage	12V system: 15.5V; 24V system: 31.0V; 48V system: 62.0V					
Increase Protection Voltage	12V system: 14.5V; 24V system: 29.0V; 48V system: 58.0V					
Low Voltage Recovery Point	12V system: 12.5V; 24V system: 25.0V; 48V system: 50.0V					
Discharge Limiting Voltage	12V system: 10.5V; 24V system: 21.0V; 48V system: 42.0V					
Temperature Compensation Coefficient	-3mV/°C/2V(25°C is base line) (Optional)					
Charging Mode	MPPT maximum power point tracking					
Charging Method	Three stages: constant current(MPPT); constant voltage; floating charge					
Protection	Over-voltage/under-voltage/over-temperature/Anti-reverse connection protection					
Conversion Efficiency	>98%					
MPPT Tracking Efficiency	>99%					
Machine Size(L*W*H)	214×155×72.8mm		238×180×82mm		315×210×106.5mm	
Package Size(L*W*H)	243×184×115(1pc)		267×209×124(1pc)		344×239×149(1pc)	
	497×379×247(8pcs)		639×278×265(6pcs)		489×355×315(4pcs)	
N.W(kg)	1.6(1pc)		2.4(1pc)		4.2(1pc)	
G.W(kg)	1.8(1pc)		2.7(1pc)		4.6(1pc)	
Display	LCD					
Thermal Method	Cooling fan in intelligent control					
Type of Mechanical Protection	IP20					
Operating Temperature	-15°C~+50°C					
Storage Temperature	-20°C~+60°C					
Elevation	2000m(Dreating above 2000m)					
Humidity	5%~95%(No condensation)					
Communication(Optional)	RS485/APP(WIFI monitoring or GPRS monitoring)					

Remarks: Specifications are subject to change without notice.

LET-XB1-HJ Series

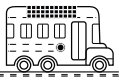
MPPT Solar Charge Controller

The LET-XB1-HJ Series is a new generation of MPPT solar charge and discharge controllers with an integrated Bluetooth module*. Users can easily read or modify settings parameters through the EPEVER APP. It boasts rapid tracking speed and response for high-power points, ensuring maximal utilization of solar energy. The device features an adaptive three-stage charging mode and a stable function for lithium battery activation, which safeguards battery charging and enhances the overall system performance and lifespan. It also offers a constant voltage output function, which allows the PV to directly supply power to the load in sunlight without a battery, significantly broadening the system's applications. With an IP33 protection and a low self-consumption, along with optimized EMC and comprehensive protection functions, it is suitable for various fields including RVs, residential systems, and field monitoring, meeting a variety of needs.

* Only LET-XB1-HJ Series has built-in Bluetooth module

Features

- Constant voltage output
- Rated Charging Power & Current Limitation
- Certain models support Bluetooth for parameter reading and modification via app
- Operates at full load within the working temperature range
- Innovative MPPT technology & ultra-fast tracking speed
- Tracking efficiency is no less than 99.5%
- Compatible with various types of batteries: lithium, gel, sealed, etc
- Wide MPPT voltage range, maximizes the utilization of PV modules
- Automatic temperature compensation for lead-acid batteries and stable self-activation for lithium batteries
- RS485 communication interface with optional 4G or Wi-Fi modules for remote monitoring
- Low self-consumption, lower than 10mA
- IP33 enclosure, Comprehensive electronic protections



Solar Car



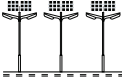
Solar Home



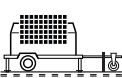
Solar Backpack



Solar Boat



Solar Street Light



Solar Power Generator

Model	LET-G10KN2R1-HJ/ LET-G10KN2B1-HJ	LET-G20KN2R1-HJ/ LET-G20KN2B1-HJ	LET-G10TN2R1-HJ/ LET-G10TN2B1-HJ	LET-G20TN2R1-HJ/ LET-G20TN2B1-HJ	LET-G30TN2R1-HJ/ LET-G30TN2B1-HJ
Electrical Parameters					
Battery Rated Voltage	12/24VDC★Auto				
Rated Charging Current	10A	20A	10A	20A	30A
Rated Discharging Current	10A	20A	10A	20A	30A
Controller Work Voltage Range	8~31V				
PV Maximum Open-Circuit Voltage	60V(At minimum operating environment temperature) 46V(At 25°C environment temperature)		100V(At minimum operating environment temperature) 92V(At 25°C environment temperature)		
MPPT Voltage Range	(Battery voltage+2V)~36V		(Battery voltage+2V)~72V		
Rated Charging Power	130W/12V 260W/24V	260W/12V 520W/24V	130W/12V 260W/24V	260W/12V 520W/24V	390W/12V 780W/24V
Maximum Conversion Efficiency	97.90%	98.30%	98.20%	98.30%	98.60%
Maximum Load Efficiency	97.00%	96.70%	96.20%	96.40%	96.60%
Static Losses (Enable the com.port)	≤10mA(12V) ≤7mA(24V)	≤10mA(12V) ≤7mA(24V)	≤15mA(12V) ≤9mA(24V)	≤15mA(12V) ≤9mA(24V)	≤15mA(12V) ≤9mA(24V)
Static Losses (Disable the com.port)	≤8mA(12V) ≤5mA(24V)	≤8mA(12V) ≤5mA(24V)	≤8mA(12V) ≤6mA(24V)	≤8mA(12V) ≤6mA(24V)	≤8mA(12V) ≤5mA(24V)
Discharge-Circuit Voltage Drop	≤0.23V				
Temperature Compensation	-3mV/°C/2V(Default)				
Grounding Type	Common negative				
RS485 Port	5VDC/200mA(RJ45)				
LCD Backlight Time	Default: 60s, Range: 0~999s(0s: the back ight is ON all the time)				
Mechanical Parameters					
Dimension (L*W*H)	175×143×48mm	217×158×56.5mm	175×143×48mm	217×158×56.5mm	230×165×63mm
Mounting Size (L*W)	120×134mm	160×149mm	120×134mm	160×149mm	173×156mm
Mounting Hole size	Φ5mm				
Terminal	12AWG(4mm²)	6AWG(16mm²)	12AWG(4mm²)	6AWG(6mm²)	6AWG(16mm²)
Recommended Wire Size	12AWG(4mm²)	10AWG(6mm²)	12AWG(4mm²)	10AWG(6mm²)	8AWG(10mm²)
Net Weight	0.58kg	0.97kg	0.59kg	0.97kg	1.30kg
Work Temperature Range	-25°C~+50°C				
Storage Temperature Range	-20°C~+70°C				
Relative Humidity	≤95%, N.C.				
Enclosure	IP33 (3 -protection againstsolid objects: protected against solids objects over 2.5mm. 3-protected against sprays to 60°from the vertical.				
Pollution Degree	PD2				

Remarks: Specifications are subject to change without notice.

	LET-G40TN2R1-HJ/ LET-G40TN2B1-HJ	LET-G30LN2R1-HJ/ LET-G30LN2B1-HJ	LET-G40LN2R1-HJ/ LET-G40LN2B1-HJ	LET-H30LN2R1-HJ/ LET-H30LN2B1-HJ	LET-H40LN2R1-HJ/ LET-H40LN2B1-HJ
Electrical Parameters					
Battery Rated Voltage	12/24VDC★Auto			12/24/36/48VDC★Auto	
Rated Charging Current	40A	30A	40A	30A	40A
Rated Discharging Current	40A	30A	40A	30A	40A
Controller Work Voltage Range	8~31V			8~62V	
PV Maximum Open-Circuit Voltage	100V(At minimum operating environment temperature) 92V(At 25°C environment temperature)	150V(At minimum operating environment temperature) 138V(At 25°C environment temperature)			
MPPT Voltage Range	(Battery voltage+2V)~72V	(Battery voltage+2V)~108V			
Rated Charging Power	520W/12V 1040W/24V	390W/12V 780W/24V	520W/12V 1040W/24V	390W/12V 780W/24V 1170W/36V 1560W/48V	520W/12V 1040W/24V 1560W/36V 2080W/48V
Maximum Conversion Efficiency	98.60%	97.60%	97.90%	98.10%	98.50%
Maximum Load Efficiency	96.50%	95.10%	95.40%	96.90%	97.20%
Static Losses (Enable the com.port)	≤15mA(12V) ≤9mA(24V)	≤15mA(12V) ≤9mA(24V)	≤15mA(12V) ≤9mA(24V)	≤14mA(12V) ≤9mA(24V) ≤8mA(36V) ≤7mA(48V)	≤14mA(12V) ≤9mA(24V) ≤8mA(36V) ≤7mA(48V)
Static Losses (Disable the com.port)	≤8mA(12V) ≤5mA(24V)	≤8mA(12V) ≤5mA(24V)	≤8mA(12V) ≤5mA(24V)	≤8mA(12V) ≤5mA(24V) ≤5mA(36V) ≤5mA(48V)	≤8mA(12V) ≤5mA(24V) ≤5mA(36V) ≤5mA(48V)
Discharge-Circuit Voltage Drop	≤0.23V				
Temperature Compensation	-3mV/°C/2V(Default)				
Grounding Type	Common negative				
RS485 Port	5VDC/200mA(RJ45)				
LCD Backlight Time	Default: 60s, Range: 0~999s(0s: the back ight is ON all the time)				
Mechanical Parameters					
Dimension (L *W *H)	255×185×67.8mm	255×185×67.8mm	255×187×75.7mm	255×187×75.7mm	255×189×83.2mm
Mounting Size (L *W)	200×176mm	200×176mm	200×178mm	200×178mm	200×180mm
Mounting Hole size	Φ5mm				
Terminal	6AWG(16mm²)	6AWG(16mm²)	6AWG(16mm²)	6AWG(16mm²)	6AWG(16mm²)
Recommended Wire Size	6AWG(16mm²)	8AWG(10mm²)	6AWG(16mm²)	8AWG(10mm²)	6AWG(16mm²)
Net Weight	1.72kg	1.66kg	2.08kg	2.16kg	2.60kg
Work Temperature Range	-25°C~-+50°C	-25°C~-+45°C			
Storage Temperature Range	-20°C~-+70°C				
Relative Humidity	≤95%, N.C.				
Enclosure	IP33 (3 -protection againstsolid objects: protected against solids objects over 2.5mm. 3-protected against sprays to 60°from the vertical.)				
Pollution Degree	PD2				

Remarks: Specifications are subject to change without notice.



LET-XB2-HJ Series

MPPT Solar Charge Controller

The LET-XB2-HJ series is a new generation of high-current MPPT charge and discharge controller. It features load output capability and delivers superior MPPT tracking and conversion efficiency. The series is compatible with various lithium battery types and supports three-stage charging management to extend battery lifespan. Its exceptional low-power design significantly reduces static consumption, prolonging system standby time.

Comprehensive electronic protection and flexible communication options (WiFi, Bluetooth, 4G, etc.) further enhance system reliability and monitoring capabilities. It is widely used in RVs, boats, industrial monitoring, and small to medium-sized solar power systems.

Features

- Supports 12V/24V/36V/48V systems; Charge/Discharge current: 50A~100A
- All metal die-casting shell, IP43(1)
- Supports two PV inputs(2)
- Max. MPPT tracking efficiency: 99.9%; Max. Conversion efficiency: 98.5%
- Compatible with AGM, Gel, Flooded, LiFePO4 batteries, etc.
- Constant voltage output functio: Enables direct load supply with sufficient PV energy
- Communication interface with electrical isolation
 - CAN: Parallel operation of up to 6 devices(with or without batteries)
 - BMS: Ensures reliable lithium battery charge/discharge management(3)
 - RS485: Optional Bluetooth, WiFi, or 4G modules(4)
- Real-time data recording, event logging, and power statistics function
- EMC compliant (CLASS B)
 - (1) IP32 without terminal cover
 - (2) LET-H100LN242-HJ, LET-H100LN2B2-HJ; LET-H100HN2R2-HJ;LET-H80HN242-HJ support two PV inputs
 - (3) Requires BMS-LINK module for others company batteries
 - (4) LET-XXXXXXBXX-HJ models feature integrated Bluetooth

Model	LET-H50HN2R1-HJ		LET-H60LN2R1-HJ LET-H60LN2B1-HJ		LET-H60HN2R1-HJ	LET-H75LN2R1-HJ
Electrical Parameters						
Battery Rated Voltage	12/24/48VDC~Auto					
Controller Operating Voltage Range	8~62V					
Battery Type	AGM (Default) / Gel / Flooded / User					
Lithium Battery Type	LiFePO4 / Li (NiCoMn)O2 / User					
Rated Charging / Discharging Current	50A	60A				75A
Rated Charging Power	650W/12V; 1,300W/24V; 2,600W/48V	780W/12V; 1,560W/24V; 3,120W/48V				975W/12V; 1,950W/24V; 3,900W/48V
Maximum Charging Power	650W/12V; 1,300W/24V; 2,600W/48V	780W/12V; 1,560W/24V; 3,120W/48V				975W/12V; 1,950W/24V; 3,900W/48V
Rated Load Current	50A	60A				75A
Maximum Load Current	50A	60A				75A
PV Maximum Open-circuit Voltage	200V (@ lowest temperature); 180V (@ 25°C)	150V (@ lowest temperature); 138V (@ 25°C)		200V (@ lowest temperature); 180V (@ 25°C)		150V (@ lowest temperature); 138V (@ 25°C)
MPPT Operating Voltage Range	(Battery voltage plus 2V, and>28V) to 144V (@ 25°C)	(Battery voltage plus 2V, and>28V) to 108V (@ 25°C)		(Battery voltage plus 2V, and>28V) to 144V (@ 25°C)		(Battery voltage plus 2V, and>28V) to 108V (@ 25°C)
Tracking Efficiency	≥ 99.5%					
Maximum Conversion Efficiency	98.30%	98.60%		98.10%		98.60%
Full Load Efficiency	97.10%	98.00%		98.00%		98.00%
Temperature Compensation Coefficient	-3mV/°C/2V (Default)					
Self-consumption (Enabled Communication)	98mA/12V; 60mA/24V; 46mA/48V					
Self-consumption (Disabled Communication)	48mA/12V; 25mA/24V; 14mA/48V					
Grounding Type	Common negative grounding					
Dry Contact (Oil Generator / Utility)	Rated value: 5A/30VDC; Maximum value: 0.5A/60VDC					
RS485 Communication Port	5VDC/200mA (RJ45)					
Mechanical Parameters						
Dimension (L*W*H) IP43 (Controller & White Terminal Cover)	307×253×143mm	320×263×143mm				320×263×158mm
Dimension (L*W*H) IP32 (Controller Only)	307×202×134mm	320×212×134mm				320×212×149mm
Mounting Dimension (L*W)	295×130mm	308×140mm				
Mounting Hole Size	Φ7mm					
Wiring Terminal	6AWG/16mm²	2AWG/35mm²				
Recommended Cable	6AWG/16mm²					4AWG/25mm²
Net Weight IP43 (Controller & White Terminal Cover)	5.07kg	5.88kg		5.93kg		6.56kg
Net Weight IP32 (Controller Only)	4.86kg	5.66kg		5.71kg		6.34kg
Environmental Parameters						
Operating Temperature Range	-25°C to +60°C (Derating when temperature is higher than 40°C)					
LCD Temperature Range	-20°C to +70°C					
Storage Temperature Range	-30°C to +70°C					
Relative Humidity	5%~95% (N.C)					
Altitude	< 5,000M (Derating when altitude is higher than 2,000m)					
Enclosure	Ip43 (Controller & White Terminal Cover); IP32 (Controller Only)					
Pollution Degree	PD2					
Certification						
Safety	EN/IEC62109-1					
EMC	EN61000-6-1 / EN61000-6-3					
FCC	47 CFR Part 15, Subpart B					
ROHS	IEC62321-3-1					

Remarks: Specifications are subject to change without notice.

Model	LET-H75HN2R1-HJ	LET-H80HN2R2-HJ	LET-H100LF2R2-HJ LET-H100LF2B2-HJ	LET-H100HF2R2-HJ
Electrical Parameters				
Battery Rated Voltage	12/24/48VDC~Auto			
Controller Operating Voltage Range	8~62V			
Battery Type	AGM (Default) / Gel / Flooded / User			
Lithium Battery Type	LiFePO4 / Li (NiCoMn)O2 / User			
Rated Charging / Discharging Current	75A	80A	100A	
Rated Charging Power	975W/12V; 1,950W/24V; 3,900W/48V	1,040W/12V; 2,080W/24V; 4,160W/48V	1,300W/12V; 2,600W/24V; 5,200W/48V	
Maximum Charging Power	975W/12V; 1,950W/24V; 3,900W/48V	1,040W/12V; 2,080W/24V; 4,160W/48V	1,300W/12V; 2,600W/24V; 5,200W/48V	
Rated Load Current	75A	80A	100A	
Maximum Load Current	75A	80A	100A	
PV Maximum Open-circuit Voltage	200V (@ lowest temperature); 180V (@ 25°C)	200V (@ lowest temperature); 180V (@ 25°C)	150V (@ lowest temperature); 138V (@ 25°C)	200V (@ lowest temperature); 180V (@ 25°C)
MPPT Operating Voltage Range	(Battery voltage plus 2V, and>28V) to 144V (@ 25°C)		(Battery voltage plus 2V, and>28V) to 108V (@ 25°C)	(Battery voltage plus 2V, and>28V) to 144V (@ 25°C)
Tracking Efficiency	≥ 99.5%			
Maximum Conversion Efficiency	98.10%	98.50%	98.60%	98.50%
Full Load Efficiency	97.50%	97.50%	98.00%	97.60%
Temperature Compensation Coefficient	-3mV/°C/2V (Default)			
Self-consumption (Enabled Communication)	98mA/12V; 60mA/24V; 46mA/48V			
Self-consumption (Disabled Communication)	48mA/12V; 25mA/24V; 14mA/48V			
Grounding Type	Common negative grounding			
Dry Contact (Oil Generator / Utility)	Rated value: 5A/30VDC; Maximum value: 0.5A/60VDC			
RS485 Communication Port	5VDC/200mA (RJ45)			
Mechanical Parameters				
Dimension (L*W*H) IP43 (Controller & White Terminal Cover)	320×263×158mm	352×263×158mm		
Dimension (L*W*H) IP32 (Controller Only)	320×212×149mm	352×212×149mm		
Mounting Dimension (L*W)	308×140mm	340×140mm		
Mounting Hole Size	Φ7mm			
Wiring Terminal	2AWG/35mm²			
Recommended Cable	4AWG/25mm²		4AWG/35mm²	
Net Weight IP43 (Controller & White Terminal Cover)	6.62kg	7.79kg	7.87kg	7.87kg
Net Weight IP32 (Controller Only)	6.40kg	7.55kg	7.63kg	7.63kg
Environmental Parameters				
Operating Temperature Range	-25°C to +60°C (Derating when temperature is higher than 40°C)			
LCD Temperature Range	-20°C to +70°C			
Storage Temperature Range	-30°C to +70°C			
Relative Humidity	5%~95% (N.C)			
Altitude	< 5,000M (Derating when altitude is higher than 2,000m)			
Enclosure	Ip43 (Controller & White Terminal Cover); IP32 (Controller Only)			
Pollution Degree	PD2			
Certification				
Safety	EN/IEC62109-1			
EMC	EN61000-6-1 / EN61000-6-3			
FCC	47 CFR Part 15, Subpart B			
ROHS	IEC62321-3-1			

Remarks: Specifications are subject to change without notice.



Residential Hybrid Inverter

Split-Phase Hybrid Inverter

Battery Low Voltage

Key strengths

- Plug & Play.
- Capable of supporting 100% unbalanced loads.
- 3 phase 208Vac & paralel function available.
- 100A pass through.
- AC couple to retrofit existing solar system(on-grid & off-grid).
- Grid & diesel Generator separately connected, support storing energy from diesel generator.

Type	LSRTH5KTLS-ML01	LSRTH6KTLS-ML01	LSRTH7K6TLS-ML01	LSRTH8KTLS-ML01	LSRTH10KTLS-ML01
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PV input

Max.DC input power (kW)	7.5	9	12	12	15
No. of MPPT trackers	4				
MPPT voltage range (V)	120~500				
MAX.DC input voltage (V)	500				
MAX. input current (A)	14				
MAX. short circuit current (A)	22				

Battery input

Nominal voltage (V)	48				
MAX.charging/discharging current (A)	120/120	135/135	190/190	190/190	190/210
Battery voltage range (V)	40~60				
Battery type	Lithium /Lead-acid				
Charging strategy for Li-Ion battery	Self-adaption to BMS				

Type	LSRTH5KTLS-ML01	LSRTH6KTLS-ML01	LSRTH7K6TLS-ML01	LSRTH8KTLS-ML01	LSRTH10KTLS-ML01
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AC output(on-grid)

Nominal output power output to grid (kVA)	5	6	7.6	8	10
MAX. apparent power output to grid (kVA)	5.5	6.6	8.4	8.8	11
Output voltage range (V)	(110~120)/(220~240)split phase, 240V single phase				
Output frequency (Hz)	60(55 to 65)				
Nominal AC current output to grid (A)	20.8	25	31.7	33.3	41.7
Max. AC current output to grid (A)	22.9	27.5	34.8	36.7	45.8
Max. grid passthrough current (A)	100				
Output THDi	<3%				

AC output(back-up)

Nominal. apparent power (kVA)	5	6	7.6	8	10
Max. apparent power (kVA)	5.5	6.6	8.4	8.8	11
Nominal output voltage L-N/L1-L2 (V)	120/240				
Nominal output frequency (Hz)	60				
Automatic switchover time (ms)	<20				
Output power factor	0.8leading~0.8lagging				
Output THDu	<2%				

Protection

Grounding detection	Yes
Arc fault protection	Yes
Island protection	Yes
Battery reverse polarity	Yes
Insulation resistor detection	Yes
Residual current monitoring unit	Yes
Output over current protection	Yes
Back-up output short protection	Yes
Output over voltage protection	Yes
Output under voltage protection	Yes

General data

Mppt efficiency	99.9%
Europe efficiency (PV)	96.5%
PV to grid efficiency (PV)	97.2%
Battery to load efficiency	95.2%
PV to battery charing efficiency	96.1%
Grid to battery charing efficiency	95.0%
Output conduit (mm)	25.4
PV input conduit (mm)	25.4
BAT input conduit (mm)	35.4
Operating temperature range (C)	-25~+60
Relative humidity	0-95%
Operating altitude	0~4,000m(Derating above 2,000m altitude)
Ingress protection	IP65/NEMA 3R
Built-in breaker	Optional
Weight (kg)	48kg(50kg with breaker)
Dimensions W*H*D (mm)	450 x 820 x 240
Cooling	FAN cooling
Noise emission (dB)	38
Display	LCD,Touch panel(optional)
Communication with BMS/Meter/EMS	RS485, CAN
Supported communication interface	RS485, WLAN, 4G (optional)
Self-consumption	<25W
Safety	UL1741SA all options, UL1699B, CSA 22.2
EMC	FCC part 15 class B
Support diesel generator	YES

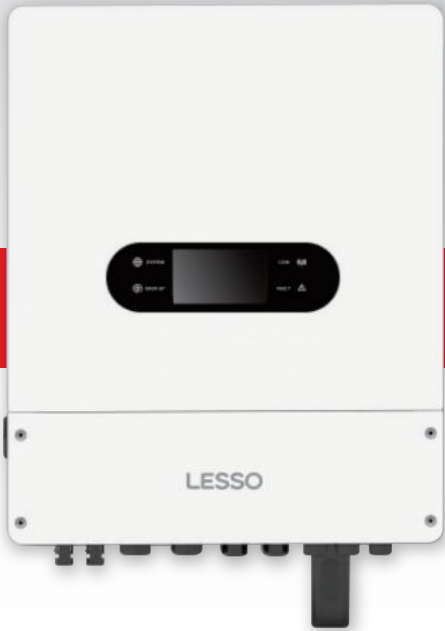
Other data

Peak power (off grid)	105%,60s / 110%,30s / 120%,10s / 150%,20ms
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LEC-ABN Series

Residential Hybrid Inverter

3-8kW | Single phase



The LEC-ABN Series (3-8kW) delivers a powerful and adaptive solution for residential solar storage, combining high efficiency, robust protection, and intelligent energy management. Designed for homes in high electricity-cost regions, it maximizes solar self-consumption, slashes energy bills, and ensures uninterrupted backup power during outages.

190A Ultra-Fast Charge/Discharge
Manage heavy loads instantly

Industry-Leading IP66 Protection
Dustproof, waterproof, install anywhere

Scale to 6 Units in Parallel
Expand power seamlessly for grid/off-grid

4-Stage Smart Charging
Cut costs via customizable energy schedules

Universal Battery Compatibility
Support lead-acid/lithium-iron battery

Remote & Touchscreen Control
Monitor and adjust via 4G/WiFi or touchscreen

Product Model	LEC-302A 3BN	LEC-362A 3BN	LEC-402A 3BN	LEC-462A 3BN	LEC-502A 3BN	LEC-602A 3BN	LEC-702A 3BD	LEC-762A 3BD	LEC-802A 3BD
PV input									
Max input voltage (V)	500								
Isc PV (A)	22.5	22.5/22.5	22.5/22.5	22.5/22.5	22.5/22.5	22.5/22.5	37.5/22.5	37.5/22.5	37.5/22.5
Max input current (A)	18	18/18	18/18	18/18	18/18	18/18	30/18	30/18	30/18
Number of MPPT channels	1			2					
MPPT range (Vdc)	150~450								
Vdc range @ full power (Vdc)	240~425								
Max input PV power (VA)	6000	7200	8000	9200	10000	12000	14000	15200	16000
Battery (charge/discharge)									
Battery type	Li-ion/Lead-acid								
Rated battery voltage	48V(44-57V)								
Max charge/discharge current (A)	75	90	100	110	120	120	175	190	190
Max charge/discharge power (W)	3300	3960	4400	5000	5500	6000	7000	7600	8000
AC Grid (input and output)									
Rated AC voltage (VAC)	230(single phase)								
Rated frequency (Hz)	50(49-51default) (47-53 adjustable)								
Max. output current (A)	15	18	20	22	25	27	35	38	40
Max. output power (W)	3300	3960	4400	5000	5500	6000	7000	7600	8000
Max. apparent power (VA)	3300	3960	4400	5000	5500	6000	7700	8360	8800
Power factor (adjustable)	1~(0.8 leading to 0.8 lagging)								
AC Load output (stand alone)									
Rated voltage (VAC)	230(single phase)						220/230(single phase)		
Rated frequency (Hz)	50						50/60		
Rated current (A)	14	16	18	21	23	27	35	38	40
Max. output power (W)	3000	3600	4000	4600	5000	6000	7000	7600	8000
Overload capability (off grid)	>200% for 15 sec								
Output power factor (off grid)	1~(0.8 leading to 0.8 lagging)								
Output current harmonic distortion	THD<3%(Nonlinear load); THD<1.5%(Linear load)								
Others									
Ingress protection (IP)	IP66								
Protective class	Class I								
Temperature (°C)	-25°C~+60°C								
Inverter Isolation	Non-isolated PV- AC; High frequency isolated(Battery Side)								
Overvoltage category	OVC III (AC Main), OVC II (PV)								
Dimensions D*W*H (mm)	198*427*554								
Weight (kg)	20								
Altitude (m)	2000								

Remarks: Specifications are subject to change without notice; Special voltage and power requirements can be customized designed

LEC-BBD Series

Residential Hybrid Inverter

5-12kW | Three Phase



The LEC-BBD Series(5-12kW) stands out as a top-tier choice in the residential and light commercial hybrid inverter market, combining industrial-grade durability with intelligent energy management. Designed for homes, villas, and small enterprises in high electricity-cost regions, it maximizes solar self-consumption, slashes energy bills, and delivers zero-carbon resilience.

250A Ultra-Fast Charge/Discharge
Manage heavy loads instantly

Industry-Leading IP66 Protection
Dustproof, waterproof, install anywhrer

Scale to 6 Units in Parallel
Expand power seamlessly for grid/off-grid

6-Stage Smart Charging
Cut costs via customizable energy schedules

Universal Battery Compatibility
Support lead-acid/lithium-iron battery

Remote & Touchscreen Control
Monitor and adjust via 4G/WiFi or touchscreen

Product Model	LEC-502B3BD	LEC-602B3BD	LEC-702B3BD	LEC-802B3BD	LEC-103B3BD	LEC-123B3BD
PV input						
Max PV (Vdc)	1000					
Isc PV (A)	22.5	22.5	22.5	22.5/22.5	45/22.5	45/22.5
Max. PV input current/strings (A)	18	18	18	18/18	36/18	36/18
Number MPPT trackers	1			2		
MPPT range (Vdc)	200~800					
Vdc range @ full power (Vdc)	350~800					
PV Max (kW)	10	12	14	16	20	24
Battery (charge/discharge)						
Battery type	Li-ion/Lead-acid					
Battery norma voltage (Range) (Vdc)	48V(40-60V)					
Max charge/discharge current (A)	120	125	150	190	210	250
Max charge/discharge power (W)	5000	6000	7000	8000	10000	12000
AC Grid (input and output)						
Normal AC voltage (VAC)	380/400(3W+N+PE)					
Frequency (Hz)	50/60					
Max. cont output current (A)	8.3	10	11.6	13.3	16.7	20
Max. cont output power (W)	5000	6000	7000	8000	10000	12000
Max. cont. apparent power (VA)	5500	6600	7700	8800	11000	13200
Power factor (adjustable)	0.8 leading to 0.8 lagging					
AC Load output (stand alone)						
Normal voltage (VAC)	380/400(3W+N+PE)					
Frequency (Hz)	50/60					
Nominal current (A)	8.3	10	11.6	13.3	16.7	20
Max. cont. power (W)	5000	6000	7000	8000	10000	12000
Overload capability (off grid)	>200% for 15 sec					
Output power factor (off grid)	0.8 leading to 0.8 lagging					
Output current harmonic distortion	THD<3%(Nonlinear load); THD<1.5%(Linear load)					
Others						
Ingress protection (IP)	IP66					
Protective class	Class I					
Temperature (°C)	-25°C~+60°C					
Inverter Isolation	Non-isolated PV- AC; High frequency isolated(Battery Side)					
Overvoltage category	OVC III (AC Main), OVC II (PV)					
Dimensions D*W*H (mm)	475*683*256					
Weight (kg)	38					
Altitude (m)	2000					

Remarks: Specifications are subject to change without notice; Special voltage and power requirements can be customized designed

Batteries series

Light Up Every Household





LSMO 25.6V120AH-ZY Battery Module

LSMO Battery Module be mainly used in electric vehicles, electric mobility; Solar/wind energy storage system; UPS, backup power; Telecommunication; Medical equipment; Lighting.

Features



Longer Cycle Life

life than lead acid battery, helping to minimize replacement cost and reduce total cost of owner.



Lighter Weight

About 40% of the weight of a comparable lead acid battery. A 'drop in' replacement for lead acid batteries.



Higher Power

Delivers twice power of lead acid battery, even high discharge rate, while maintaining high energy capacity.



Superior Safety

Automatic protection with internal battery management system.



Increased Flexibility

Modular design enables deployment of up to two batteries in series and up to four batteries in parallel.



Wider Temperature Range

-20°C~60°C



Battery Module

Items	LSMO 25.6V120AH-ZY
Nominal voltage	25.6V
Voltage range	25.6V~26.4V
Nominal capacity	120Ah
Minimum capacity	120Ah
Initial impedance	≤180mΩ
Charge limit voltage	28.8V
Discharge cut-off voltage	18.4V
Standard charge current	50A
Maximum charge current	100A
Standard discharge current	50A
Max continuous discharge current	100A
Charging time	Standard charging: 2~3 hours Rapid charge: 1~2 hours
Cycle Life	≥4000 Cycle life Test condition: Charge: 0.2C to 28.8V/Cell , then stored for 10 minutes. Discharge: 0.5C to over discharge protection, then stored for 10 minutes. When the discharge capacity drops to 80% of the initial capacity, the number of cycles completed is defined as the cycle life of the energy storage.
Operating temperature	Charging temperature: 0°C~55°C Discharging temperature: -20°C~55°C
Storage temperature	0°C~+45°C (< 1 month) 0°C~+35°C (< 6 month)
Storage humidity	<75% RH
Standard testing condition	Temperature: 25±2°C Humidity: ≤75%RH
Product dimension	522*238*218mm
Weight	≈ 25kg

Remarks: Specifications are subject to change without notice.



LSMO 25.6V200AH-ZY Battery Module

LSMO Battery Module be mainly used in electric vehicles, electric mobility; Solar/wind energy storage system; UPS, backup power; Telecommunication; Medical equipment; Lighting.

Features



Longer Cycle Life

life than lead acid battery, helping to minimize replacement cost and reduce total cost of owner.



Lighter Weight

About 40% of the weight of a comparable lead acid battery. A 'drop in' replacement for lead acid batteries.



Higher Power

Delivers twice power of lead acid battery, even high discharge rate, while maintaining high energy capacity.



Superior Safety

Automatic protection with internal battery management system.



Increased Flexibility

Modular design enables deployment of up to two batteries in series and up to four batteries in parallel.



Wider Temperature Range

-20°C~60°C



Battery Module

Items	LSMO 25.6V200AH-ZY
Nominal voltage	25.6V
Voltage range	25.6V~26.4V
Nominal capacity	200Ah
Minimum capacity	200Ah
Initial impedance	≤180mΩ
Charge limit voltage	28.8V
Discharge cut-off voltage	18.4V
Standard charge current	50A
Maximum charge current	100A
Standard discharge current	50A
Max continuous discharge current	100A
Charging time	Standard charging: 2~3 hours Rapid charge: 1~2 hours
Cycle Life	≥6000 Cycle life Test condition: Charge: 0.2C to 28.8V/Cell , then stored for 10 minutes. Discharge: 0.5C to over discharge protection, then stored for 10 minutes. When the discharge capacity drops to 80% of the initial capacity, the number of cycles completed is defined as the cycle life of the energy storage.
Operating temperature	Charging temperature: 0°C~55°C Discharging temperature: -20°C~55°C
Storage temperature	0°C~+45°C (< 1 month) 0°C~+35°C (< 6 month)
Storage humidity	<75% RH
Standard testing condition	Temperature: 25±2°C Humidity: ≤75%RH
Product dimension	522*238*218mm
Weight	≈ 35kg

Remarks: Specifications are subject to change without notice.

LESSO



LSRW51V100AH-LFP

Residential Wall-mounted Energy Storage

LSRW series battery packs are wall-mounted residential lithium batteries, designed entirely for residential ESS applications. With our battery technology, you can easily combine it with a mainstream inverter in diferent scenarios to save your electrical bill & back-up your power during grid outage or unavailable.

Features



Safety

High safety LiFePO₄ battery; Fire-safe, non-toxic;Lithium ferrous phosphate (LFP) cells.Meet UL1973,IEC62619 UN38.3 certification



Flexible

Long cycle life (>6000cycles@ 80% DOD)
Wall mounted



Environment protection

Non-toxic and pollution-free



Long-lasting

15 years life design.
Long cycle life and superior performance



Wide compatibility

Compatible with multiple brands of mainstream inverter use



Smart WiFi

Support wifi APP and cloud platform monitor



UL1973
UN38.3

LESSO

Residential Wall-Mounted Energy Storage

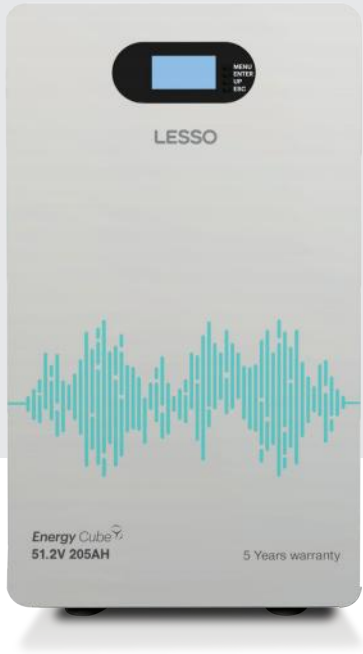
Items	LSRW51V100AH-LFP
Nominal voltage	51.2V
Nominal capacity	100Ah
Nominal energy	5.12kWh
Usable energy	5.0kWh
Recommended charge current	50A
Max. continuous charge current	80A
Max. continuous discharge current	80A
Peak discharge current	300A/3s
Max. continuous discharge power	5kW
Peak discharge power	15kW/3s
Self-discharge rate (Sleep mode)	Capacity: ≤ 3% / month; ≤ 20% / years
Standard charge voltage	56.0V
Floating charge voltage	54.0V
End of discharge voltage	43.2V
Communication	RS485 / CAN
IP rating	IP55
Cycle life	≥ 6000 cycles @80%DOD
Net weight	60.7kg
Dimension of product (L*W*H)	454*170*698mm
Dimension of packaging (L*W*H)	558*407*768mm
Battery housing	SGCC with white coating
Operation temperature	0~45°C (32~113°F)
Recommended operation temperature	15~30°C (59~86°F)
Storage temperature for short time	-10~45°C (14~113°F)
Storage temperature for long time	10~35°C (50~95°F)
Operation humidity	5~95%
Install altitude	≤ 4000m
Install location	Under the roof
Installation	Wall mounted
Certification	CE / IEC62619 / UL1973 / UN38.3

Guangdong Lesso Energy Storage Technology Co., Ltd

Daba Industrial Area, Longjiang Town, Foshan Clty, Guangdong Province, China

LESSO Solar

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Residential Wall-mounted Energy Storage

LSRW series battery packs are wall-mounted residential lithium batteries, designed entirely for residential ESS applications. With our battery technology, you can easily combine it with a mainstream inverter in diferent scenarios to save your electrical bill & back-up your power during grid outage or unavailable.

Features



Safety

High safety LiFePO₄ battery; Fire-safe, non-toxic;Lithium ferrous phosphate (LFP) cells.



Long-lasting

10 years life design. Long cycle life and superior performance



Portable installation

Wall-mounted installation method, does not occupy ground space.



Wide compatibility

Compatible with multiple brands of mainstream inverter use



Environment protection

Non-toxic and pollution-free

LESSO

Residential Wall-Mounted Energy Storage

Items	LSRW51V205AH-LFP
Nominal voltage	51.2V
Nominal capacity	205Ah
Nominal energy	10.49kWh
Usable energy	10kWh
Recommended charge current	100A
Max. continuous charge current	120A
Max. continuous discharge current	150A
Max. continuous discharge power	7.6kW
Self-discharge rate (Sleep mode)	Capacity: ≤ 3.5% / month
Standard charge voltage	56.0V
End of discharge voltage	40V
Communication	RS485 / CAN
IP rating	IP55
Cycle life	≥ 6000 cycles @90%DOD
Net weight	86.5kg
Dimension of product (L*W*H)	700*400*240mm
Battery housing	SGCC with white coating
Operation temperature	0~60°C (32~140°F)
Recommended operation temperature	15~30°C (59~86°F)
Storage temperature for short time	-10~45°C (14~113°F)
Storage temperature for long time	10~35°C (50~95°F)
Operation humidity	5~95%
Install altitude	≤ 4000m
Install location	Under the roof
Installation	Wall mounted, Floor standing
Certification	UN38.3 / MSDS



Residential Wall-mounted Energy Storage

LSRW series battery packs are wall-mounted residential lithium batteries, designed entirely for residential ESS applications. With our battery technology, you can easily combine it with a mainstream inverter in diferent scenarios to save your electrical bill & back-up your power during grid outage or unavailable.

Features



Safety

High safety LiFePO₄ battery; Fire-safe, non-toxic;Lithium ferrous phosphate (LFP) cells.



Long-lasting

10 years life design. Long cycle life and superior performance



Portable installation

Wall mounted installation method, wheeled mobility.



Wide compatibility

Compatible with multiple brands of mainstream inverter use



Environment protection

Non-toxic and pollution-free

Items	LSRW51V280AH-LFP
Nominal voltage	51.2V
Nominal capacity	280Ah
Nominal energy	14.3kWh
Usable energy	14kWh
Recommended charge current	140A
Max. continuous charge current	200A
Max. continuous discharge current	200A
Max. continuous discharge power	10kW
Self-discharge rate (Sleep mode)	Capacity: ≤ 3% / month
Standard charge voltage	56.0V
End of discharge voltage	40V
Communication	RS485 / CAN
IP rating	IP55
Cycle life	≥ 6000 cycles @90%DOD
Net weight	122kg
Dimension of product (L*W*H)	700*600*248mm
Battery housing	SGCC with white coating
Operation temperature	0~60°C (32~140°F)
Recommended operation temperature	15~30°C (59~86°F)
Storage temperature for short time	-10~45°C (14~113°F)
Storage temperature for long time	10~35°C (50~95°F)
Operation humidity	5~95%
Install altitude	≤ 4000m
Install location	Floor standing
Certification	UN38.3 / MSDS

LESSO



Residential Stacked Energy Storage

LSRS series battery packs are stack type residential lithium batteries, designed entirely for residential ESS applications. With our battery technology, you can easily combine it with any mainstream inverter in different scenario to save your electrical bill & back-up your power during grid outage or when power is unavailable.

Features

Safety
Safer lithium iron phosphate, designed to comply with IEC, UL standards.

Wide compatibility
Compatible with multiple brands of mainstream inverter use.

Convenient installation
The installation can be completed by simple stacking.

Long-lasting
15 years life design.
Long cycle life and superior performance.

Scalability
10.24 KWh ~ 20.48 KWh can be extended.

WiFi optional
WIFI configuration is optional.



5025601
CONFORMS TO ANSI/CAN/UL STD. 1973

UL1973
UN38.3



LESSO

Residential Stacked Energy Storage

Items	LSRS205V50AH-LFP	LSRS307V50AH-LFP	LSRS410V50AH-LFP
Number of battery modules	2	3	4
Manage battery energy	10.24kWh	15.36kWh	20.48kWh
Nominal voltage	204.8V	307.2V	409.6V
Operation voltage range	185.6V~233.6V	278.4V~350.4V	371.2V~467.2V
Manage battery capacity	50Ah		
Max. charge current	50A		
Max. discharge current	50A		
Communication to inverter	CAN / RS485		
Wifi	Support		
Display	SOC status indicator LED		
IP rating	IP55		
Cycle life	6000 Cycles @25°C @70%EOL @0.2C charge & 0.5C discharge, 90% DOD		
Battery module weight	≈ 60kg		
Module dimension (L*W*H)	630*440*590 mm	630*440*745 mm	630*440*900 mm
Cell type	LFP - Lithium iron phosphate (LiFePO ₄)		
Design life	15 years (25°C/77°F)		
Charge temp. range	0~50°C(32~122°F)		
Discharge temp. range	-10~50°C(14~122°F)		
Operating temperature	Charge:0~50°C(32~122°F) Discharge: -10~55°C (14~131°F)		
Relative humidity	5%~95%		
Install altitude	≤4000m		
Certification	CE / IEC62619 / UL1973 / UL9540A/UN38.3		

1. Test conditions: 90% depth of discharge (DOD), 0.2C rate charge & discharge at 25°C.
2. Charge/discharge derating occurs when the operating temperature from -20°C to 5°C & 45°C to 55°C.
3. The maximum charge and discharge is 1C, the maximum requested charge and discharge current size according to the agreement when connected to the inverter.

Guangdong Lesso Energy Storage Technology Co., Ltd

Daba Industrial Area, Longjiang Town, Foshan Clty, Guangdong Province, China

LESSO Solar

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LESSO



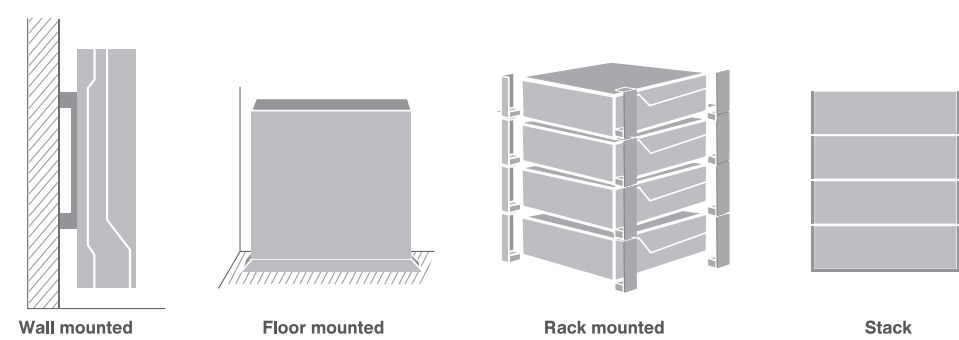
LSRR51V100AH-LFP
Residential Rack Energy Storage

LSRR series battery packs are rack type residential lithium batteries, designed entirely for residential ESS applications. With our battery technology, you can easily combine it with any mainstream inverter in different scenarios to reduce your electrical bill & back-up your power during grid outage or when power is unavailable

- 

Modular
Support up to 32 units in parallel, scale from 5 kWh to 160 kWh configuration without external controller
- 

4 types of installation
Compact & Flexible. 3U (133mm) standard height design. Optional bracket kits for different installation senarios.



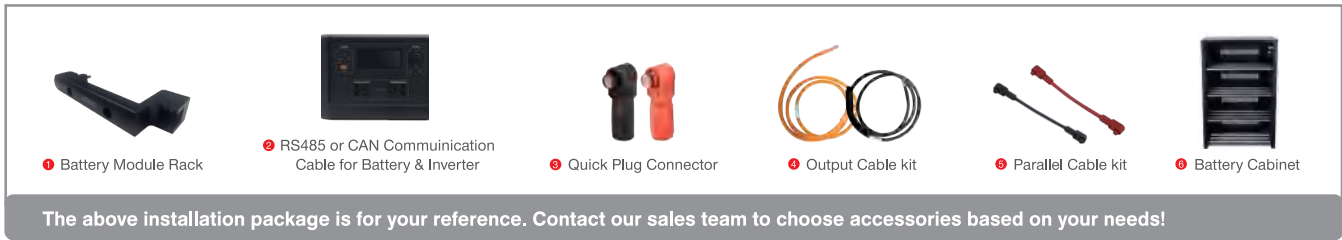
CE UK CA UN38.3

LESSO

Residential Rack Energy Storage

Items	LSRR51V100AH-LFP
Nominal voltage	51.2V
Nominal capacity	100Ah
Nominal energy	5.12kWh
Usable energy	4.92kWh
Operating voltage range	44.8V~56.0V
Charge voltage	56V
Float voltage	54.6V
Recommended charge current	50A
Max. charge current	70A
Recommended discharge current	50A
Max. discharge current	100A
Communication	RS485 /CAN
Peak discharge current / unit	101~119A@5mins 120~149A@15S
IP rating	IP20
Cycle life	≥ 6000 cycles @90%DOD
Net weight / unit	47kg
Gross weight / unit	50kg
Dimension of product / unit	482*133.5*460mm
Dimension of packaging / unit	574*217*526mm
Cell type	Lithium-iron phosphate (LiFePO ₄)
Design life	15 years
Operation temperature	-10~50°C (14~122°F)
Storage temperature	-10~45°C(14~113°F)
Relative humidity	5% - 90%, No condensation
Install altitude	≤ 4000m
Install location	Indoor
Installation	Wall mounted / Floor mounted / Stack / Rack mounted
Certification	CE / IEC62619 / UL1973 / UN38.3

[1] Test conditions: 90% depth of discharge (DOD), 0.2C rate charge & discharge at 25°C
[2] Available energy of the system may be different from various inverter brands
[3] Derating occurs when the operating temperature from -10°C to 10°C & 40°C to 50°C



- 1 Unique rack for stacking installation battery modules.

2 The data exchange between the battery and the inverter is necessary, and some models use RS485 mode or CAN mode for communication. Please refer to the user manual for specific model information. The length of this communication cable is 2 meters.

3 The terminals of the battery are equipped with specially designed quick plug connector for easy installation and disassembly. Can be used for the battery parallel wires & output wires fabrication.
- 4 Pre fabricated with quick plug connector and pre-insulated terminal, which use for wiring between battery and inverter or combiner box. The length of this cable kit is 2 meters with 25 mm².

5 Pre fabricated with quick plug connectors, which use for wiring battery parallel connction. The length of this cable kit is 0.25 meter with 35 mm².

6 Battery installation cabanet, there has 6 version for selection. (2/3/6/10/12/16 layers)

Portable Energy Storage

Let There Be Light, Anywhere, Anytime

- Portable Battery
- Foldable PV Panel





P3 Plus

Portable Energy Storage

Features

-  Paired with a powerful 300W inverter, be able to power 80% of household device.
-  With ultra-safe LiFePO4batteries and high-quality BMS technology protection, making it areliable backup power supply.
-  Offering 4 charing methods, to ensure that the device maintains the charge reserve anytime and anywhere.
-  4 outputs, AC ports, standard USB-A/Type-C/car port and wireless charging pad, meeting various needs.

Product Model		P3 Plus
Builtin Battery		Lithium iron phosphate battery (378Wh)
Input Charging		Power adapter: 120W/20V
Solar Panel Input		MPPT, 12.5V~25V/8A Max
Fully Charged Time		FDC solar: 4h; Power adapter: 3.5h
USB Output	USB1	QC3.0/5V2.4A 9V2A 12V 1.5A /BC1.2 AFC FCP
	USB2	QC3.0/5V2.4A 9V2A 12V 1.5A /BC1.2 AFC FCP
	TYPE-C1	PD65W 5V3.25A 9V3.25A 12V3.25A 15V3.25A 20V3.25A
DC Output		12V/8.3A
AC Output	Sine Wave Output	CN: 220V+10V, 60Hz/50Hz+3Hz
		US: 110V+10V, 60Hz/50Hz+3Hz
		JP: 100V+10V, 60Hz/50Hz+3Hz
		EU/UK: 230V+10V, 60Hz/50Hz+3HZ
AC Continuous Output		300W
AC Max Output		600W about 1s
Solar Input		12.5V-25V 120W (Max)
Operation Temperature		-10~40°C
Charging Temperature		0~40°C
Battery Capacity		378Wh
Cycle Life		2000 times
Dimensions(mm)		280 × 210 × 170
Weight(kg)		5.3

Remarks: specifications are subject to change without notice

LESSO

Portable Energy Storage

Features

- UPS uninterruptible charging, emergency support, supports charging while discharging.
- Brand new dual fast charging, fully charged in 2 hours with mains power, fully charged in 4 hours with solar power.
- Compact size, rich interfaces, equipped with outdoor lighting, supports charging with AC and solar panels.

LESSO

Portable Energy Storage

Product Model			P5 Pro
Battery			LiCoO2 22.2V 499.5Wh
Input			Fast charging CN: 200V-240V/50HZ, rated input power: 430W US/JP: 100V-120V/60Hz, rated input power: 430W EU/AU/UK: 220V-240V/50Hz, rated input power: 430W
			Solar panel: MPPT 100W, 18V~24V, 5.6A
Output	USB Output	USB-A	MAX 36W 5V3A 9V3A 12V3A support Apple 2.4A, QC2.0/3.0, FCP, AFC, DCP, SCP
		TYPE-C	MAX 60W 5V3A 9V3A 12V3A 15V3A 20V3A support Apple 2.4A, PPS/PD3.0/PD2.0; QC4+/QC4/QC3.0/QC2.0; AFC; FCP; SCP; PE2.0/PE1.1; SFCP fast charging protocol
	DC Output	Car Port	12V 10A 120W Max
	AC Output	Sine wave	CN: 220V~240VAC single-phase output, 50Hz, rated output power: 600W US/JP: 100V~120VAC single-phase output, 60Hz, rated output power: 600W EU/AU/UK: 220V~240VAC single-phase output, 50Hz, rated output power: 600W
LED Light			Bright - Off - SOS (3 modes cycle)
Cycle Life			>1000 times
Protections			A. over voltage protection B. low voltage protection C. discharge over current protection D. short circuit protection E. charge over current protection F. temperature protection
Accessories			AC charging line / instruction book
Dimensions(mm)			251*145*152
Weight(kg)			5.1
Charging Temperature			0~45℃
Working Temperature			-20~60℃

Remarks: specifications are subject to change without notice

Product Specification





P6 Plus

Portable Energy Storage

Features

-  Paired with a powerful 600W inverter, be able to power 99% of household device.
-  With ultra-safe LiFePO4batteries and high-quality BMS technology protection, making it areliable backup power supply.
-  Offering 4 charing methods, to ensure that the device maintains the charge reserve anytime and anywhere.
-  8 outputs, AC ports, standard USB-A/Type-C/car port and wireless charging pad, meeting various needs.

Product Model		P6 Plus
Builtin Battery		Lithium iron phosphate battery (576Wh)
Input Charging		Power adapter: 120W/20V
Solar Panel Input		MPPT, 12.5V~25V/8A Max
Fully Charged Time		FDC solar: 5.5h Power adapter: 5h
USB Output	USB1	QC3.0/5V2.4A 9V2A 12V 1.5A /BC1.2 AFC FCP
	USB2	QC3.0/5V2.4A 9V2A 12V 1.5A /BC1.2 AFC FCP
	TYPE-C1	PD65W 5V3.25A 9V3.25A 12V3.25A 15V3.25A 20V3.25A
	TYPE-C2	PD30W 5V2.5A 9V2.5A 12V2.5A
DC Output		12V/8.3A
AC Output	Sine Wave Output	CN: 220V+10V, 60Hz/50Hz+3Hz
		US: 110V+10V, 60Hz/50Hz+3Hz
		JP: 100V+10V, 60Hz/50Hz+3Hz
		EU/UK: 230V+10V, 60Hz/50Hz+3HZ
AC Continuous Output		600W
AC Max Output		900W about 1s
Solar Input		12.5V-25V 120W (Max)
Operation Temperature		-10~40°C
Charging Temperature		0~40°C
Battery Capacity		576Wh
Cycle Life		2000 times
Dimensions(mm)		320 × 210 × 226
Weight(kg)		7.1

Remarks: specifications are subject to change without notice

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CE FC RoHS

Portable Energy Storage

Features

-  Rich output interfaces, suitable for various charging scenarios.
-  High power, large capacity, supporting most electrical appliances.
-  Adapted to 200W solar foldable panel charging, supporting simultaneous charging and discharging.
-  8 output ports, capable of supporting eight devices using electricity simultaneously.

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Portable Energy Storage

Product model	P10
Built-in Battery	Lithium iron phosphate battery (1008Wh)
Input Charging	Power adapter: 200W/20V
Solar Panel Input	MPPT,18V~22V/10.0A Max
Fully Charged Time	FDC solar:4h Power adapter:6.5h
USB Output	USB1: QC3.0/5V2.4A 9V2A 12V 1.5A /BC1.2 AFC FCP USB2: 5V2.4A Type-C1: PD65W 5V5A 9V5A 12V5A 15V5A 20V5A Type-C2: 5V2.4A
DC Output	13.5V/9A
AC Output	AC SineWave Output CN: 220V±10V, 60Hz/50Hz±3Hz US/JP: 110V±10V, 60Hz/50Hz±3Hz EU/UK: 230V±10V, 60Hz/50Hz±3Hz
AC Continuous Ouput	1200W
AC Max Output	2000W about 1s
Solar input	12V-30V 200W (Max)
Operation temperature	-10~40°C
Charging temperature	0~40°C
Battery capacity	1008Wh
Lifecycle	2000 times
Size/weight	290mm*220mm*230mm
Weight	10.5kg

Remarks: specifications are subject to change without notice

Product Specification



CN



UK



EU



US/JP

Portable Energy Storage



Features

- Wireless charging function, new fast charging, fully charged in 1.5-2 hours with AC power, 5 hours with solar power.
- AC/USB/car charging and other different interface outputs, convenient for users in various scenarios.
- 4 Type-A ports (36W*4 Max) & 2 Type-C ports (100W*2).
- Built-in fan for intelligent heat dissipation.

Product model			P20 Pro
Battery			LiCoO2 43.2V 2203.2Wh
Input			Fast charging CN: 200V-240V/50HZ, rated input power: 1800W US/JP: 100V-120V/60Hz, rated input power: 1800W EU/AU/UK: 220V-240V/50Hz, rated input power: 1800W
			Solar panel: MPPT>99% 400W/800W, 18V/36V, 11.2A
Output	USB Output	USB-A	24W 5V3A 9V2.5A 12V2A support Apple 2.4A; PPS/PD3.0/PD2.0; QC4+/QC4/QC3.0/QC2.0; AFC; FCP; SCP; PE2.0/PE1.1; SFCP fast charging protocol
		TYPE-C	100W 5V3A 9V3A 12V3A 15V3A 20V5A support Apple 2.4A; PPS/PD3.0/PD2.0; QC4+/QC4/QC3.0/QC2.0; AFC; FCP; SCP; PE2.0/PE1.1; SFCP fast charging protocol
	DC Output	Car Port	13.2V 10A 132W Max
		DC5525	13.2V 5A 132W Max
	AC Output	Sine Wave	CN: 4 sets 220V~240VAC single-phase output, 50Hz , rated output power: 2200W US/JP: 4 sets 100V~120VAC single-phase output, 60Hz, rated output power: 2200W EU/AU/UK: 4 sets 220V-240VAC single-phase output, 50Hz, rated output power: 2200W
	Wireless Charging		5V/1A; 12V/1.25A support Qi protocol
LED Light			Medium bright - High bright - SOS - Flash - Off (5 modes cycle)
Cycle Life			>1000 times
Protections			A. over voltage protection B. low voltage protection C. discharge over current protection D. short circuit protection E. charge over current protection F. temperature protection
Accessories			AC charging line / car charging line
Dimensions(mm)			422*288*306
Weight(kg)			21
Charging Temperature			0~45°C
Working Temperature			-10~45°C

Remarks: specifications are subject to change without notice

Product Specification

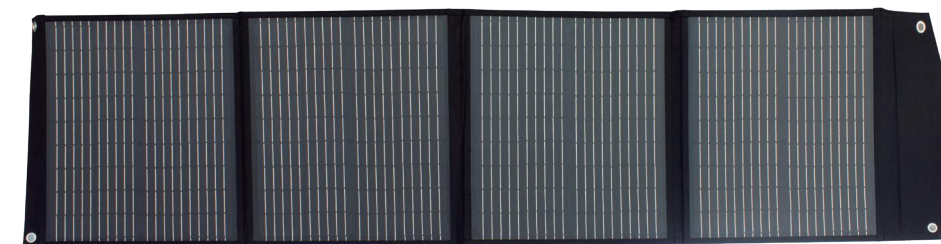


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19.8V120W

Foldable Solar Panel



PV module dimension Specification

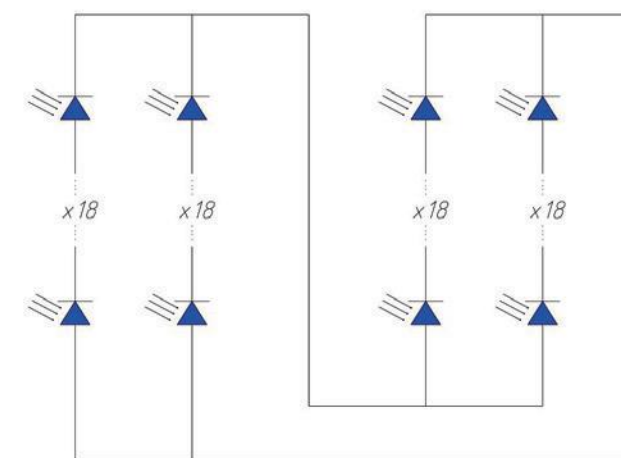
Expanded dimension: 1905*470*25mm

Folded dimension: 470*435*50mm

Product weight: 4.7KG

1.Working mode of solar panel

Working mode of solar panel:



Working principle diagram of solar panel

2.Output Electrical performance parameters of PV module

Output power(@STC) :	120W±5%
Open circuit voltage(@STC) :	24V±5%
Rated operating voltage (@STC):	19.8V±5%
Rated operating current)@STC):	6A±5%
Short circuit current (@STC):	6.3A±5%

Note: STC: Standard Tested Condition
(AM=1.5, 25°C, 1000W/m²)

Output port: 1*DC, 1*USB, 1*TYPE-C, 1*XT60,
1*USB fast charging

Foldable PV Panel



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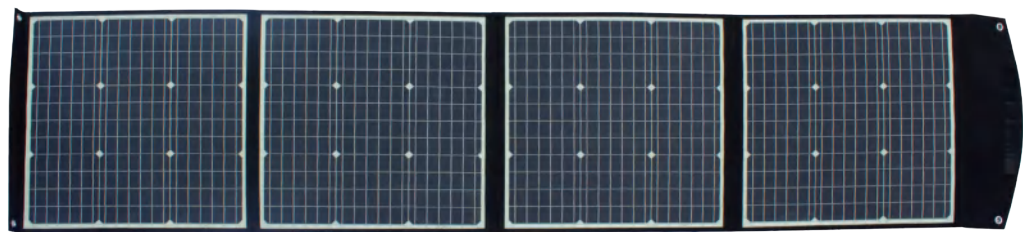
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19.8V200W

Foldable Solar Panel

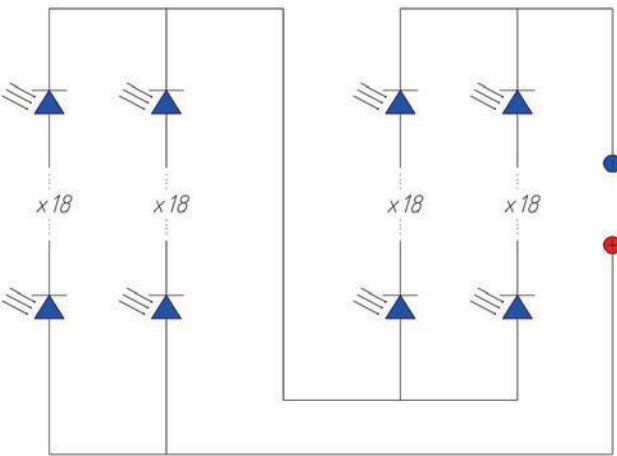


PV module dimension Specification

Expanded dimension: 2460*540*25mm
Folded dimension: 540*580*60mm
Product weight: 8KG

1.Working mode of solar panel

Working mode of solar panel:



Working principle diagram of solar panel

2.Output Electrical performance parameters of PV module

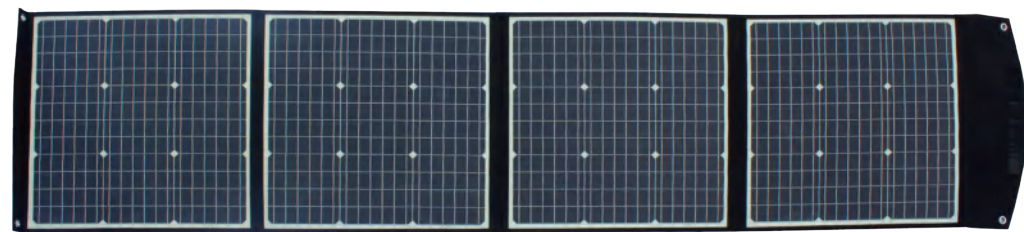
Output power(@STC) : 200W±5%
Open circuit voltage(@STC) : 24V±5%
Rated operating voltage (@STC): 19.8V±5%
Rated operating current(@STC): 10.1A±5%
Short circuit current (@STC): 10.6A±5%

Note: STC: Standard Tested Condition
(AM=1.5, 25°C, 1000W/m²)

Output port: 1*DC, 1*USB, 1*TYPE-C, 1*XT60,
1*USB fast charging

39V400W

Foldable Solar Panel

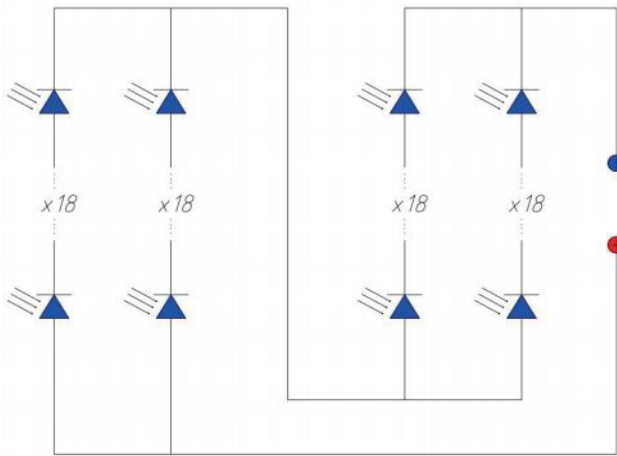


PV module dimension Specification

Expanded dimension: 3160*810*4mm
Folded dimension: 730*810*25mm
Product weight: 9.2KG

1.Working mode of solar panel

Working mode of solar panel:



Working principle diagram of solar panel

2.Output Electrical performance parameters of PV module

Output power(@STC) : 400W±5%
Open circuit voltage(@STC) : 46.8V±5%
Rated operating voltage (@STC): 39V±5%
Rated operating current(@STC): 10.3A±5%
Short circuit current (@STC): 10.8A±5%

Note: STC: Standard Tested Condition
(AM=1.5, 25°C, 1000W/m²)

Output port: 1*MC4

EV Charger

High Power, Plug and Charge



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CE

EV Charger

Mobile charge at any time

LESSO

EV Charger



LSACS-E-32/230-B01-1
LSACS-E-32/230-B01-2

Easy switching among multi-gear currents

The default current is 32A, if this current is insufficient for charging at this time, you can adjust the charging current.

Strong compatibility and suitability for various models

Suitable for most new energy vehicle models.

Protection grade: IP55

It has an IP55 waterproof and dust-proof function, and always ensures the charging safety of your car, even in severe outdoor environments.

Technical parameter

Types	LSACS-E-32/230-B01-1	LSACS-E-32/230-B01-2	LSACS-E-32/230-B02-1	LSACS-E-32/230-B02-2
Output Power	7kW			
Rated Output Voltage	Two-phase 230VAC			
Rated Output Current	32A			
Display Mode	LED light	Display	LED light	Display
Use Method	Swipe card/Bluetooth/Free vend(Optional)			
Plug Type	Type 2			
Rated Output Frequency	60Hz			
Insulation Resistance	>10MΩ			
Operation Temperature	-20°C~+50°C			
Cable Length	5m (customizable)			
Dimension	Control mainbox: 342 (L) *214(M) *116mm (H)			
Flame Retardant Rating	UL94-V0			
Standard	IEC 62196-1:2022, IEC 61851-1-2017			



LSACS-E-32/230-B02-1
LSACS-E-32/230-B02-2

Reservation charging and avoiding peak hours

To take advantage of the cheap price and save on power, you may schedule a charging session for 1~10 hours

8 Safety features

Protection against overheating, overcurrent, leakage, overvoltage, output exception, CP fault, communication fault, and relay fault.

Compressive, strong and durable

The mainbox is made of high-strength PC material with strong, compressive resistance.

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EV Charger

Mobile charge at any time

LESSO

EV Charger



LSACS-C-32/240-C01

Easy switching among multi-gear currents

The default current is 32A, if this current is insufficient for charging at this time, you can adjust the charging current.

Strong compatibility and suitability for various models

Suitable for most new energy vehicle models.

Protection grade: IP55

It has an IP55 waterproof and dust-proof function, and always ensures the charging safety of your car, even in severe outdoor environments.

Technical parameter

Types	LSACS-C-32/240-C01	LSACS-C-32/240-C02
Output Power	7kW	
Rated Output Voltage	Two-phase 240VAC	
Rated Output Current	32A	
Display Mode	LED light	Display
Use Method	Swipe card/Bluetooth/Free vend(Optional)	
Plug Type	GBT	
Rated Output Frequency	60Hz	
Insulation Resistance	>10MΩ	
Operation Temperature	-20°C~+50°C	
Cable Length	5m (customizable)	
Dimension	Control mainbox: 342 (L) *214(M) *116mm (H)	
Flame Retardant Rating	UL94-V0	
Standard	GB/T18487.1-2023 , GB/T20234.1-2023	



LSACS-C-32/240-C02

Reservation charging and avoiding peak hours

To take advantage of the cheap price and save on power, you may schedule a charging session for 1~10 hours

8 Safety features

Protection against overheating, overcurrent, leakage, overvoltage, output exception, CP fault, communication fault, and relay fault.

Compressive, strong and durable

The mainbox is made of high-strength PC material with strong, compressive resistance.

LESSO

Portable EV Charger



LESSO

Portable EV Charger



LSAC3K5-P-C1



LSAC3K5-P-C2



LSAC7K-P-C1



LSAC7K-P-C2

Easy switching among multi-gear currents

The default current is 10A, if this current is insufficient for charging at this time, you can adjust the charging current.

Reservation charging and avoiding peak hours

To take advantage of the cheap price at night and save on power, you may schedule a charging session for 1~10 hours (LSAC3K5-P-C2 / LSAC7K-P-C2 : 1~24hours).

Strong compatibility and suitability for various models

Suitable for most new energy vehicle models.

8 Safety features

Protection against overheating, overcurrent, leakage, overvoltage, output exception, CP fault, communication fault, and relay fault.

Protection grade: IP66

It has an IP66 waterproof and dust-proof function, and always ensures the charging safety of your car, even in severe outdoor environments.

Compressive, strong and durable

The housing is made of high-strength PC material with strong, compressive resistance.

Technical parameter

Types	LSAC3K5-P-C1	LSAC3K5-P-C2	LSAC7K-P-C1	LSAC7K-P-C2
Output Power	3.5kW		7kW	
Rated Output Voltage	220VAC			
Rated Output Current	13A		32A	
Display Mode	LED light	2.4 "color TFT screen	LED light	2.4 "color TFT screen
Use Method	Plug and charge			
Rated Output Frequency	50Hz			
Insulation Resistance	>10MΩ			
Operation Temperature	-20°C~-+50°C			
Cable Length	5m (customizable)			
Dimension	control mainbox: 200 (L) *90 (M) *55mm (H)			
Flame Retardant Rating	UL94-V0			
Standard	GB/T20234.2-2015, GB/T18487.1-2015			

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LESSO Solar

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LESSO

Portable EV Charger

High power, plug and charge



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Portable EV Charger



LSACP-E-16/230-A01



LSACP-E-16/230-A02



LSACP-E-32/230-A01



LSACP-E-32/230-A02

Easy switching among multi-gear currents

The default current is 10A, if this current is insufficient for charging at this time, you can adjust the charging current.

Reservation charging and avoiding peak hours

To take advantage of the cheap price and save on power, you may schedule a charging session for 1~10 hours (LSACP-E-16/230-A02 / LSACP-E-32/230-A02 : 1~24hours).

Strong compatibility and suitability for various models

Suitable for most new energy vehicle models.

8 Safety features

Protection against overheating, overcurrent, leakage, overvoltage, output exception, CP fault, communication fault, and relay fault.

Protection grade: IP66

It has an IP66 waterproof and dust-proof function, and always ensures the charging safety of your car, even in severe outdoor environments.

Compressive, strong and durable

The mainbox is made of high-strength PC material with strong, compressive resistance.

Technical parameter

Types	LSACP-E-16/230-A01	LSACP-E-16/230-A02	LSACP-E-32/230-A01	LSACP-E-32/230-A02
Output Power	3.5kW		7kW	
Rated Output Voltage	230VAC			
Rated Output Current	13A		32A	
Display Mode	LED light	2.4 "color TFT screen	LED light	2.4 "color TFT screen
Use Method	Plug and charge			
Rated Output Frequency	50Hz			
Insulation Resistance	>10MΩ			
Operation Temperature	-20°C~+50°C			
Cable Length	5m (customizable)			
Dimension	Control mainbox: 200 (L) *90 (M) *55mm (H)			
Flame Retardant Rating	UL94-V0			
Optional Plug type	European Standard, US Standard, National Standard three-pronged plug, etc			

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LESSO Solar

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AC&DC integrated charger



Features

1. With 2 DC outputs and 1 AC output,simultaneously charging

2. Flexible power automatic group control function brings efficient charging

3. Hardware level switch monitoring and interlock protection functions
4. Charging module adopts the glue filling process

5. Wide voltage constant power output

6. Smart charging and load balancing

7. Multi-standard plug: CCS2, CHAdeMO, GBT, Type2

Applications

Shopping mall, Public parking, Highway

Model	LSADC-M-202/1000-A	LSADC-M-202/1000-B	LSADC-M-180/1000-C	LSADC-M-180/1000-D	LSADC-M-180/1000-E
Rated power	1xCCS2:Max180kW 1xCHAdeMO:Max60kW 1xType2:Max22kW total:202kW	1xCCS2:Max180kW 1xType2:Max22kW total:202kW	1xCCS2:Max180kW 1xCHAdeMo:Max60kW total:180kW	2xCCS2:Max180kW total:180kW	1xCCS2:Max180kW 1xGBT:Max180kW total:180kW
AC voltage	400VAC±10%				
Power supply	3P+N+PE				
DC Max current	1xCCS2:Max200A 1xCHAdeMO:Max125A 1xTyp2:Max32A	1xCCS2:Max200A 1xType2:Max32A	1xCCS2:Max200A 1xCHAdeMO:Max125A	2xCCS2:Max200A	2xCCS2:Max200A
AC/DC voltage	1xCCS2:200~1000VDC 1xCHAdeMO:200~500VDC 1xType2:400VAC	1xCCS2:200~1000VDC 1xType2:400VAC	1xCCS2:200~1000VDC 1xCHAdeMO:200~500 VDC	2xCCS2:200~1000VDC	2xCCS2:200~1000VDC
Frequency	50/60Hz				
Charge plug	CCS2+CHAdeMO+Type2	CCS2+CCS2+Type2	CCS2+CHAdeMO	CCS2+CCS2	CCS2+GBT
Cable length	5m (Optional)				
Enclosure	Galvanized Steel				
LED indicator	Green/Yellow/Blue/Red				
LCD display	7"color LCD				
RFID	Non-contact (ISO/IEC14443 A)				
Start method	QR code/Card/BLE5.0/PnC				
Interface	BLE5.0/Ethernet/4G/WIFI (Optional)				
Protocol	OCPP1.6J/2.0J (Optional)				
Efficiency	≥95% (Half load and above)				
Power factor	≥0.98 (Rated load)				
Voltage accuracy	≤±0.5%				
Current accuracy	≤±1%				
Energy meter	Accuracy level1.0				
Emergency stop	Yes				
Protection grade	IP55 and IK10				
Certification	CE,CB				
Standard	EN/IEC 61851-1,EN/IEC 61851-23,IEC 61851-24,EN/IEC 61851-21-1				
Installation	Wall mounted/Floor mounted				
Cooling	Forced air cooling				
Temperature	-25°C~+55°C				
Humidity	5%~95%				
Atitude	≤2000m				
Product size	850×850×1800 (W×D×H,mm)				
Net weight	324kg	324kg	318kg	318kg	318kg

Remarks: specifications are subject to change without notice