



LITHIUM BATTERY SOLUTIONS PROVIDER



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广东绿达新能源有限公司 GUANGDONG LVTOPSUN NEW ENERGY CO., LTD

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COMPANY PROFILE

Established in 2016, Guangdong LVTOPSUN new energy Co., Ltd. is a well-known enterprise, dedicated to providing one-stop solution for new energy storage batteries.

As a professional manufacturer, LVTOPSUN is specializing in R&D, production, sales and services of energy storage bat- teries with over 10 years' experience. We boast a series of world-class production equipment lines with intelligent robotic arms, high precise detection instruments and monitor screen together to ensure the superior quality of batteries.

Our energy storage lithium batteries are renowned for their high quality, long lifetime, and excellent safety. We have already developed business in more than 50 countries covering the districts of Southeast Asia, the Middle East and Africa. In the future, we will continue to expand international markets in Europe and North America based on top-notch materials, advanced production technology, and world-class quality combined.

MATCH MAINSTREAM INVERTER



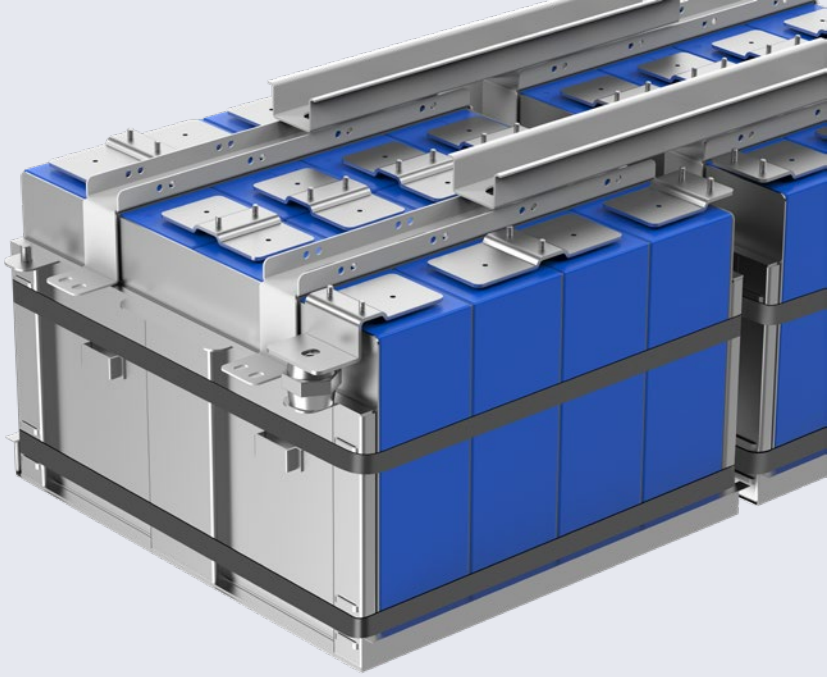
PRODUCTION LINE

LVTOPSUN possesses strong R&D and production capabilities, world-class automation and automatic production line, and high-tech equipment and advanced technology.



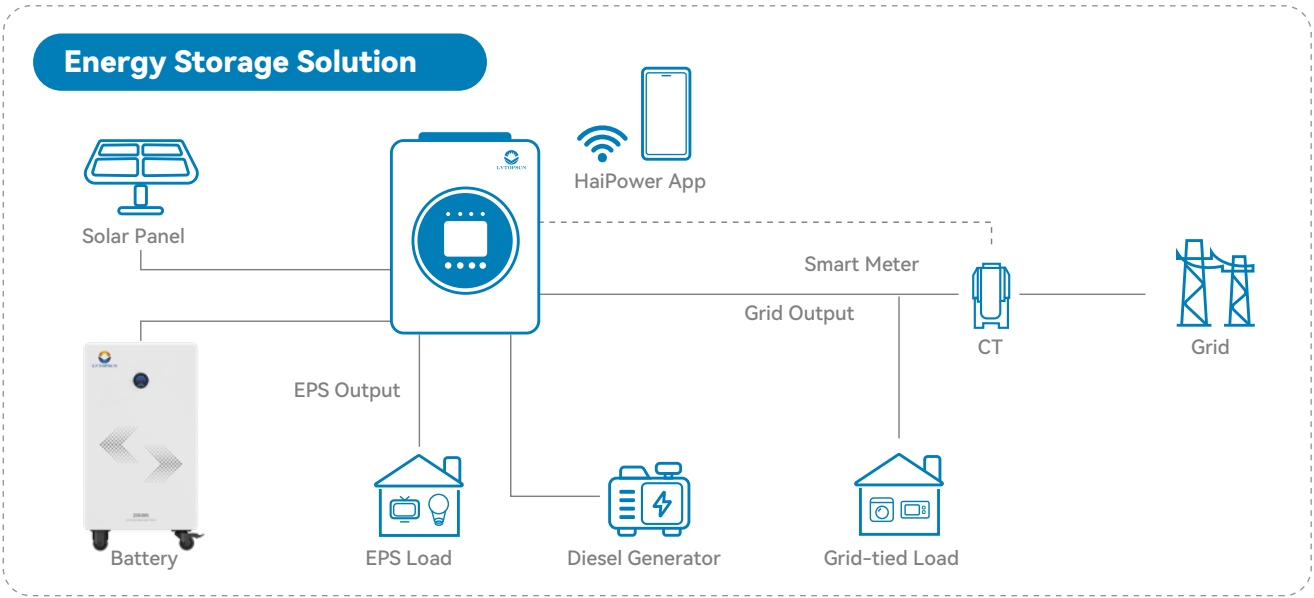


-  Durable
-  Safe and stable



IP65 Heavy-Duty Protection,
Non-Stop Energy Storage

-  WIFI
-  Touchscreen
-  IP65
-  Grade A Battery Cells
-  Smart BMS
-  8000 Cycles



LVTS-512392		
Nominal Voltage	51.2 Vdc	
Nominal Capacity	392 Ah	
Battery Energy	20 kWh	
Charge Current	196 A	
Charge Power	10035.2 W	
Discharge Current	300 A	
Discharge Power	15360 W	
Short Circuit Current	≈900 A	
Working Voltage	45.6~56.16 Vdc	
Display	LCD Display	
Communication	CAN, RS485, RS232	
Dimension (WxDxH mm)	500x270x920 mm	
Weight (Kg)	155 kg	
Installation	Floor Stand	
Working Temperature	Charge : 0~45°C / Discharge : -20~55°C	
Operating/Storage Humidity	≤95%RH	
Max Operating Altitude	≤2000m	
IP Rating	IP65	
Cell Technology	LiFePO ₄ , Lithium Iron Phosphate	
Cycle life	8000 Cycles @ 90% DOD/25°C/0.5C	
Scalability	Max 63 batteries in parallel	
Warranty	5 years	
Certificates	CE, UN38.3	



Durable



Safe and stable

Metal fixation system

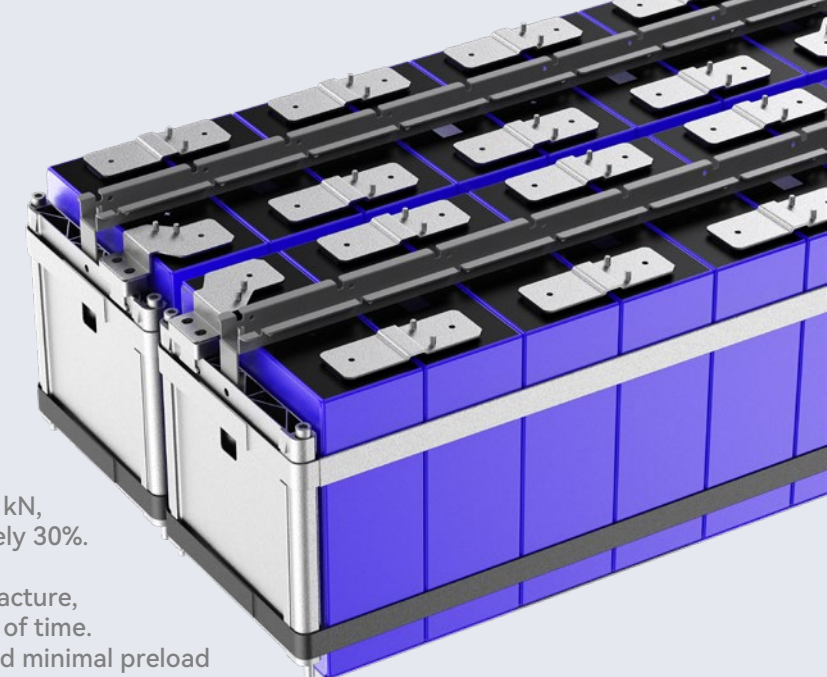
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Core advantages of the bonding process:

1. Strong constraint and structural stability:
When the bonding force is controlled between 20-40 kN, the battery cycle life can be extended by approximately 30%.
2. Anti-fatigue and long-term reliability:
The steel strip is resistant to plastic deformation or fracture, maintaining a stable preload force over a long period of time. Furthermore, it exhibits good dimensional stability and minimal preload decay, ensuring the long-term integrity of the module structure.

The core advantages of aluminum end plates are:

1. Corrosion resistance and long lifespan.
The tensile strength of aluminum alloys such as 6061 and 6063 exceeds 310MPa, capable of withstanding pressures exceeding 300 kilograms, effectively resisting external impacts and vibrations, and protecting the internal cell structure from destabilization.



LVTS-512314-G4

Nominal Voltage	51.2 Vdc
Nominal Capacity	314 Ah
Battery Energy	16.07 kWh
Working Voltage	45.6~56.16V
Charge Current	150 A
Charge Power	7680 W
Discharge Current	200 A
Discharge Power	10240 W
Short Circuit Current	540 A
Display	SOC status indicator, LCD Display
Communication	RS232、RS485、CAN
Product Features	Automatic sensing fire extinguishing device/Bluetooth/WiFi
Dimension (WxDxH mm)	480x235x874 mm
Weight (Kg)	120 kg
Installation	Floor stand
Working Temperature	Charge : 0~45°C / Discharge : -20~55°C
Operating/Storage Humidity	≤95%RH
Max Operating Altitude	≤2000m
IP Rating	IP65
Cell Technology	LiFePO ₄ , Lithium Iron Phosphate
Cycle life	8000 Cycles @ 90% DOD/25°C/0.5C
Scalability	Max 63 batteries in parallel
Warranty	10 years

Guardian of Safety

.....

24/7 Real-Time Temperature Monitoring and Integrated Automatic Fire-Suppression System





 Grade A Battery Cells
  Vertical fixed stacking
  Smart BMS
  6000 Cycles

 Grade A Battery Cells
  Touchscreen
  Smart BMS
  6000 Cycles

MODEL	LVTS-48100-NS	LVTS-512100-NS
Nominal Voltage	48 Vdc	51.2 Vdc
Nominal Capacity	100 Ah	100 Ah
Battery Energy	4.8 kwh	5.12 kwh
Working Voltage	42.75~52.65 Vdc	45.6~56.16 Vdc
Max Charge Power	2400 W	2560 W
Max Discharge Power	4800 W	5120 W
Weight (Kg)	40.5 kg	47.3 kg
Dimension (WxDxH mm)	440x500x132 mm	
Max Charge Current	50 A	
Max Discharge Current	100 A	
Short circuit current	350 A	
Display	SOC statusindicator, LED indicator	
Communication	RS232、RS485、CAN	
Installation	Rack mounted or wall mounted	
WorkingTemperature	Charge : 0~45°C / Discharge : -20~55°C	
Storage Temperature	≤25°C,12 months; ≤35°C,6 months; ≤45°C,3 months	
Operating /Storage /humidity	≤95%RH	
Max Operating Altitude	≤2000m	
IP Rating	IP20	
Cell Technology	LiFePO ₄ , Lithium Iron Phosphate	
Cycle life	6000 Cycles @ 90% DOD/25°C/0.5C	
Warranty	5 years	
Scalability	Max 15 batteries in parallel	

LVTS-512100-G3		
Nominal Voltage	51.2 Vdc	
Nominal Capacity	100 Ah	
Battery Energy	5.12 kWh	
Working Voltage	45.6~56.16 Vdc	
Charge Current	50 A	
Charge Power	2560 W	
Discharge Current	100 A	
Discharge Power	5120 W	
Short Circuit Current	350 A	
Display	LCD Display	
Communication	CAN, RS485,RS232	
Dimension (WxDxH mm)	440x138x600 mm	
Weight (Kg)	47.3 kg	
Installation	Floor Stand or Wall Mount	
Working Temperature	Charge : 0~45°C / Discharge : -20~55°C	
Operating/Storage Humidity	≤95%RH	
Max Operating Altitude	≤2000m	
IP Rating	IP20	
Cell Technology	LiFePO ₄ , Lithium Iron Phosphate	
Cycle life	6000 Cycles @ 90% DOD/25°C/0.5C	
Scalability	Max 15 batteries in parallel	
Warranty	5 years	
Certificates	CE, UN38.3, RoHS	



LVTS-512200-G3

Nominal Voltage	51.2 Vdc
Nominal Capacity	200 Ah
Battery Energy	10.24 kWh
Working Voltage	45.6~56.16 Vdc
Maximum Charge Current	100 A
Maximum Discharge Current	170 A
Maximum Charge Power	5120 W
Max Discharge Power	8704 W
Short circuit current	≈300 A
Display	LCD Display
Communication	CAN, RS485, RS232
Dimension (WxDxH mm)	450x230x680 mm
Weight (Kg)	83.5 kg
Installation	Floor Stand or Wall Mount
Working Temperature	Charge : 0~45°C / Discharge : -20~55°C
Storage Temperature	≤25°C, 12 months; ≤35°C, 6 months; ≤45°C, 3 months
Operating /Storage /humidity	≤95%RH
Max Operating Altitude	≤2000m
IP Rating	IP20
Cell Technology	LiFePO ₄ , Lithium Iron Phosphate
Cycle life	6000 Cycles @ 90% DOD/25°C/0.5C
Warranty	5 years
Scalability	Max 63 batteries in parallel



LVTS-512314-G3

Nominal Voltage	51.2 Vdc
Nominal Capacity	314 Ah
Battery Energy	16.07 kWh
Working Voltage	56.16 V
Maximum Charge Curr	150 A
Maximum Discharge Current	200 A
Charge Power	7680W
Discharge Power	10240W
Short Circuit Curr	≈540 A
Display	LCD Display
Communication	CAN, RS485, RS232
Dimension (WDXH mm)	450x230x866 mm
Weight (Kg)	119 kg
Working Temperature	Charge 0°C~45°C / Discharge -20°C~55°C
Storage Temperature	Short Term(within 1 month) -10°C~45°C Long Term(within 1 year) 0°C~35°C
Storage Humidity	≤ 95%RH
Max Operating Altitude	≤2000m
IP Rating	IP20
Cell Type	LiFePO ₄ , Lithium Iron Phosphate
Warranty	5 years
Cycle life	8000 Cycles @ 90% DOD/25°C/0.5C
Certificates	CE, UN38.3



MODEL	LVTS-512100 -1-G2	LVTS-512100 -2-G2	LVTS-512100 -3-G2	LVTS-512100 -4-G2
Nominal Capacity	100 Ah	200 Ah	300 Ah	400 Ah
Battery Energy	5.12 kWh	10.24 kWh	15.36 kWh	20.48 kWh
Max Charge Current	50 A	100 A	150 A	200 A
Max Charge Power	2500 W	5000 W	7500 W	10000 W
Max Discharge Current	100 A	200 A	200 A	200 A
Max Discharge Power	5000 W	10000 W	10000 W	10000 W
Dimension (WxDxH mm)	620X145X435 MM	620X145X816 MM	620X145X1197 MM	620X145X1578 MM
Weight (kg)	45 kg	87.5 kg	130 kg	172.5 kg
Nominal Voltage	51.2 Vdc			
Working Voltage	45.6~56.16 Vdc			
Short circuit current	350 A			
Installation	Ground mounted or wall mounted			
Working Temperature	Charge : 0~45°C / Discharge : -20~55°C			
Storage Temperature	≤25°C,12 months; ≤35°C,6 months; ≤45°C,3 months			
Operating/Storage /humidity	≤95%RH			
Max Operating Altitude	≤2000m			
IP Rating	IP20			
Cell Technology	LiFePO ₄ , Lithium Iron Phosphate			
Cycle life	6000 Cycles @ 90% DOD/25°C/0.5C			
Scalability	Max 15 batteries in parallel			
Warranty	10 years			
Display	SOC statusindicator, LED indicator			
Communication	RS232、RS485、CAN			



MODEL	LVTS-5220 -HV2	LVTS-5220 -HV4	LVTS-5220 -HV6	LVTS-5220 -HV8	LVTS-5220 -HV10	LVTS-5220 -HV12
Nominal Voltage(Vdc)	102.4	204.8	307.2	409.6	512	614.4
Operating Voltage(Vdc)	83.2-113.6	166.4-227.2	249.6-340.8	332.8-454.4	416-568	499.2-681.6
Battery Energy(kWh)	10.44	20.88	31.32	41.76	52.20	62.64
Charge Power(W)	5120	10240	15360	20480	25600	30720
Discharge Power(W)	8192	16384	24576	32768	40960	49152
Dimension (WxDxH mm)	620x380x506	620x380x783	620x380x1060	620x380x1337	620x380x1614	620x380x1891
Weight (Kg)	110 kg	200 kg	290 kg	380 kg	470 kg	560 kg
Nominal Capacity(Ah)	102					
Charge Current(A)	50					
Discharge Current(A)	80					
Display	4.3 inch (16:9) Touch Screen					
Communication	CAN					
Installation	Floor Stand					
Working Temperature	Charge:0~45°C/Discharge: -20°C~55°C					
Storage humidity	≤95% RH					
Warranty	5 years					
Max Operating Altitude	≤2000m					
IP Rating	IP65					
Cell Technology	LiFePO ₄ , Lithium Iron Phosphate					
Cycle life	6000 Cycles @ 90% DOD/25°C/0.5C					
Scalability	Max 6 piles in parallel					
Certificates	CE, UN38.3					





Grade A
Battery Cells



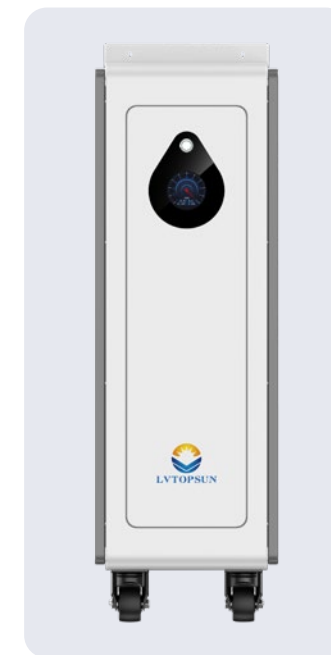
Touchscreen



Smart
BMS



8000
Cycles



STORE ENERGY BY DAY, GUARD HOME
BY NIGHT—LIGHT IS ALWAYS ON.

LVTS-512628

Nominal Voltage	51.2 Vdc
Nominal Capacity	628 Ah
Battery Energy	32 kWh
Charge Current	150 A
Charge Power	7680 W
Discharge Current	200 A
Discharge Power	10240 W
Short circuit current	540 A
Display	LCD Display
Communication	CAN, RS485, RS232
Dimension (WxDxH mm)	325x800x900 mm
Weight (kg)	240 kg
Installation	Floor Stand
Operating Temperature	Charge: 0~45°C / Discharge: -20°C~55°C
Operating /Storage	≤95% RH
Max Operating Altitude	≤2000 m
IP Rating	IP20
Cell Technology	LiFePO ₄ , Lithium Iron Phosphate
Cycle life	8000 Cycles @ 90% DOD/25°C/0.35C
Scalability	Max 63 batteries in parallel
Warranty	5 years
Certificates	CE, UN38.3



LVTS-256100		
Nominal Voltage	25.6 Vdc	
Nominal Capacity	100 Ah	
Battery Energy	25.6V,100Ah,2.56 kWh	
Charge Current	50 A	
Charge Power	1280 W	
Discharge Current	100 A	
Discharge Power	2560 W	
Short Circuit Current	≈350 A	
Dimension (WxDxH mm)	330x135x420 mm	
Weight (Kg)	26 kg	
Installation	Wall Mount	
Display	LCD Display	
Working Temperature	Charge:0~45°C / Discharge: -20°C~55°C	
Operating/Storage	≤ 95%RH	
Max Operating Altitude	≤2000m	
IP Rating	IP20	
Cell Technology	LiFePO ₄ , Lithium Iron Phosphate	
Cycle life	6000 Cycles @ 80% DOD/25°C/0.5C	
Scalability	Max 2 batteries in series	Max 4 batteries in parallel
Warranty	5 years	
Certificates	CE, UN38.3	

MODEL	LVTS-256200	LVTS-256314
Nominal Capacity	200 Ah	314 Ah
Battery Energy	5120 Wh	8038.4 Wh
Charge Current	100 A	150 A
Discharge Current	160 A	200 A
Weight (Kg)	50 kg	62.5 kg
Dimension (WxDxH mm)	430x230x580 mm	
Nominal Voltage	25.6 Vdc	
Discharge Voltage Range	22.8 V~28.4 V	
Display	Button Screen	
Communication	CAN,RS485,RS232	
Installation	Wall Mount	
Display	LCD Display	
Working Temperature	Charge:0~45°C / Discharge: -20°C~55°C	
Operating/Storage	≤ 95%RH	
Max Operating Altitude	≤2000m	
IP Rating	IP20	
Cell Technology	LiFePO ₄ , Lithium Iron Phosphate	
Cycle life	6000 Cycles @ 80% DOD/25°C/0.5C	
Scalability	Max 63 batteries in parallel	
Warranty	5 years	
Certificates	CE, UN38.3	



MODEL	LVTS-128100	LVTS-128200	LVTS-128314
Nominal Ratings	12.8 V,100 Ah, 1.28kWh	12.8 V,200 Ah, 2.56kWh	12.8 V,314 Ah, 4.02kWh
Charge Current	50 A	100 A	150 A
Discharge Current	100 A	200 A	200 A
Short Circuit Current	≈1000 A	≈2000 A	≈1500 A
Dimension (WxDxH mm)	260X168X210 MM	520X168X210 MM	387X206X269 MM
Weight (Kg)	9.85 kg	26 kg	27 kg
Bulk Charge Voltage	14 V		
Float Charge Voltage	13.8 V		
Low Voltage	12.8 V		
Cutoff Voltage	11.6 V		
Working Temperature	Charge:0~45°C / Discharge: -20°C~55°C		
Operating/Storage	≤ 95%RH		
Max Operating Altitude	≤2000m		
IP Rating	IP54		
Cell Technology	LiFePO ₄ , Lithium Iron Phosphate		
Cycle life	6000 Cycles @ 80% DOD/25°C/0.5C		
Warranty	5 years		
Scalability	Max 4pcs in series	Max 4pcs in parallel	
Certificates	CE, UN38.3		

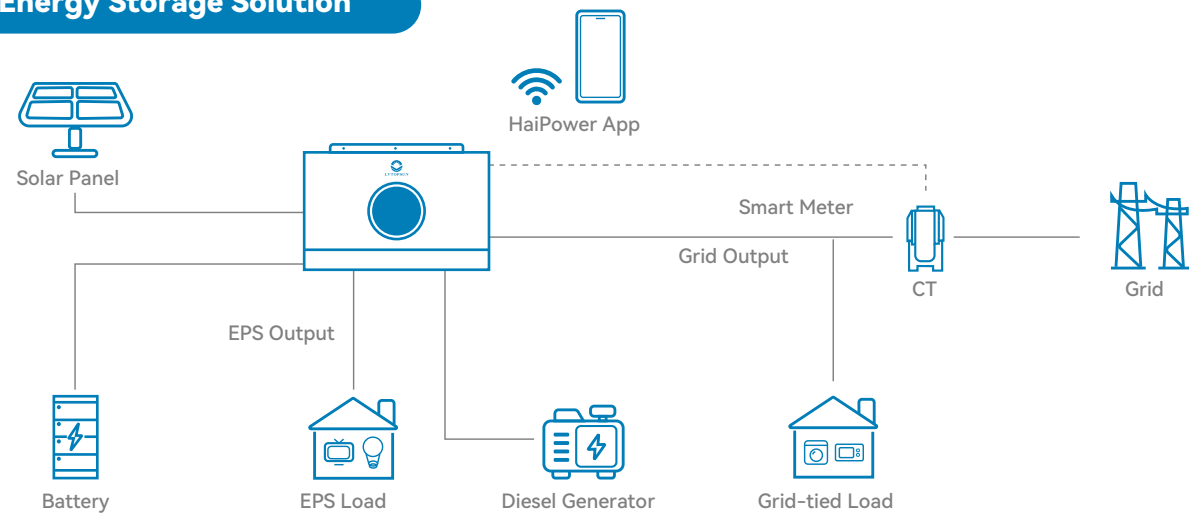
MODEL	LVTS-256100	LVTS-256200
Nominal Ratings	25.6 V,100 Ah,2.56 kWh	25.6 V,200 Ah,5.12 kWh
Charge Current	50 A	100 A
Discharge Current	100 A	200 A
Short Circuit Current	≈1000 A	≈2000 A
Dimension (WxDxH mm)	491X182X232 mm	580X430X230 mm
Weight (Kg)	19 kg	39 kg
Bulk Charge Voltage	28 V	
Float Charge Voltage	27.6 V	
Low Voltage	25.6 V	
Cutoff Voltage	23.2 V	
Working Temperature	Charge:0~45°C / Discharge: -20°C~55°C	
Operating/Storage	≤ 95%RH	
Max Operating Altitude	≤2000m	
IP Rating	IP54	
Cell Technology	LiFePO ₄ , Lithium Iron Phosphate	
Cycle life	6000 Cycles @ 80% DOD/25°C/0.5C	
Warranty	5 years	
Scalability	Max 2pcs in series	Max 4pcs in parallel
Certificates	CE, UN38.3	



Features

-  **Oversizing Ratio**
Higher PV/AC ratio up to 1.5,
allowing greater energy harvest
-  **Exceptional Load-carrying Capability**
Support battery discharge current of up to 280A
Support higher loads powered by battery only
-  **Parallel Connection**
Support parallel connection up to 9 units
-  **Powerful Instant Overload Capacity**
Support 2 times the rated power for 5
seconds in off-grid mode
-  **Smart Load Management**
Dual AC outputs to power loads on
demand priority
-  **Generator Input**
Equipped with GEN port to connect with
diesel generator
-  **Seamless Switchover**
UPS-level switching time $\leq 4\text{ms}$
-  **Superior High-Temperature Stability**
Allow full-power output up to 12kW under
high-temperature conditions

Energy Storage Solution



Specifications

Model	LVTS-12KW-HYD
Solar Input Data	
Recommended Max. PV Array Size	24000W
Max. PV Input Power	18000W
Max. Input Voltage	500V
Start-up Voltage	90V
MPPT Voltage Range	90~450V
Max. Input Current per MPPT	30+30A
Max. Short Circuit Current per MPPT	44+44A
Number of MPPT	2
Number of Strings per MPPT	2
Battery Data	
Battery Type	Li-Ion / Lead-acid
Nominal Battery Voltage	48V
Battery Voltage Range	40~60V
Max. Discharge Current	280A
Max. Charge / Discharge Power	12000W
Li-Ion Battery Activation	Yes
Li-Ion Battery Communication	CAN / RS485
Max. Solar Charge Current	250A
Max. AC Charge Current	210A
Max. Charge Current (PV+AC)	250A
AC Input Data (Grid / GEN)	
Nominal Input Voltage	230Vac, L / N / PE
Input Voltage Range	90~280(APL) / 170-265(UPS)
Max. AC Current From Utility Grid	70A
Max. Apparent Power from Utility Grid	12000VA
Max AC Current From Generator	60A
Max. Apparent Power From Generator	12000VA
AC Frequency Range	50 / 60Hz (Auto sensing)
Inverter Output Data	
Nominal Output Power	12000W
Peak Apparent AC Power	24000VA
Nominal AC Voltage	230Vac
Nominal Grid Frequency	50 / 60Hz
Voltage Waveform	Pure Sine wave
Transfer Time	4ms
Max. Output Current	52.2A
Overload Protection	30s@102%-110% load; 10s@110%-130% load; 5s@130%-200% load
THDv (@linear load)	<5%
Efficiency	
Peak Efficiency	94%
MPPT Efficiency	>99.9%
Protection	
PV Reverse Polarity Protection	yes
AC Short-circuit Current Protection	yes
Grid Monitoring	yes
Over-current Protection	yes
Over-voltage Protection	yes
AC Surge Protection	yes
DC Surge Protection	yes
System Parameters	
Dimension (W*H*D)	625*400*120mm
Weight	17.9kg
Relative Humidity	5%-95% (Non-condensing)
Operating Temperature Range	-10°C~60°C
Noise Emission	<50dB
Altitude	2000m
Cooling Method	Fan Cooling
Ingress Protection	IP21
Characteristic	
Number of AC Output	2
Display	LCD & APP
Communication Interface	RS485 / USB / CAN / Wi-Fi (built-in) Dry-Contact
Parallel Capability	9



Features

- 

Support Independent Grid/Generator Input
Dual AC inputs and integrated grid-generator switching system
- 

Parallel Connection
Parallel connection with up to 9 units
- 

Smart Load Management
Dual AC outputs design
- 

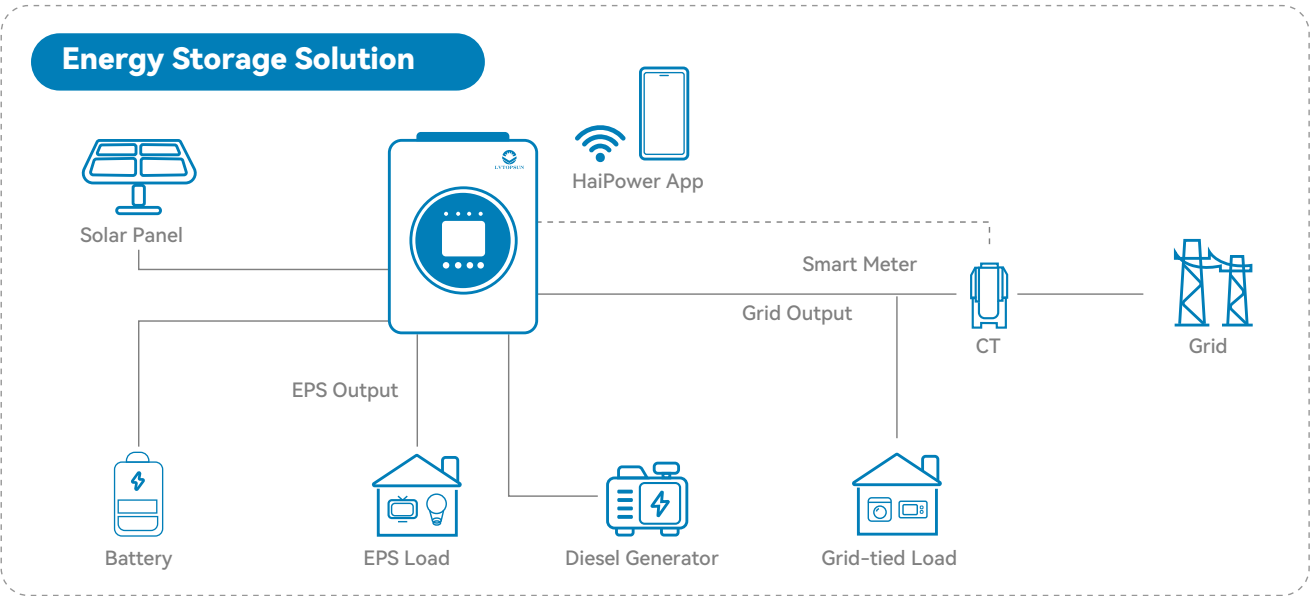
Faster On/Off-grid Switching
UPS-level switching time: 10ms
- 

Remote Monitoring
Built-in WiFi module for HaiPower App monitoring
- 

Efficient Battery Charge/Discharge
Max. 120A charge current
Max. 137A discharge current
- 

Stylish Design
Larger screen with touch keys and LED ring lights

Energy Storage Solution



Specifications

Model	LVTS-4KW-HYD	LVTS-6KW-HYD
Solar Input Data		
Max. PV Input Power	4400W	7800W
Max. Input Voltage	500V	550V
Start-up Voltage	90V	120V
MPPT Voltage Range	60V~450V	90V~500V
Max. Input Current per MPPT	18A	27A
Max. Short Circuit Current per MPPT	23A	32A
Number of MPPT	1	
AC Input Data (Grid&Generator)		
Nominal Input Voltage	230Vac, L/N/PE	
Input Voltage Range	90~280V	90~280Vac (APL); 170~265Vac (UPS)
Max. Input Current	25A	35A
Nominal Input Power	5700W	8050W
AC Frequency Range	50/60Hz(Auto sensing)	40~65Hz
Battery Data		
Battery Type	Li-Ion/Lead-acid	
Nominal Battery Voltage	24V	48V
Battery Voltage Range	20~30V	42~60V
Max. Discharge Current	137A	
Max. Charge/Discharge Power	3300W	6000W
Li-Ion Battery Activation	Yes	
Li-Ion Battery Communication	CAN/RS485	
Max. Solar Charge Current	120A	
Max. AC Charge Current	100A	
Max. Charge Current (PV+AC)	120A	
Inverter Output Data		
Nominal Output Power	4000 with PV&battery 3300W with battery only	6000W
Peak Apparent AC Power	8000VA	12000VA
Nominal AC Voltage	230V	
Nominal Grid Frequency	50/60Hz	50/60Hz (Auto Sensing)
Voltage Waveform	Pure Sine Wave	
Transfer Time	4ms	4ms
Max. Output Current	17.4A	27A
Overload Protection	30s@102%-110% load; 10s@110%-130% load; 5s@130%-200% load	
THDv (@linear load)	<3%	
Efficiency		
Peak Efficiency	94%	
MPPT Efficiency	>99.9%	
Protect		
DC Surge Protection	Yes	
AC Surge Protection	Yes	
AC Short Circuit Protection	Yes	
System Parameters		
Dimension (W*H*D)	290*424*120mm	333*505*120mm
Weight	7.1kg	10.6kg
Relative Humidity	5%~95% (Non-condensing)	
Operating Temperature Range	-10°C~60°C	-10°C~50°C
Noise Emission	<50dB	
Altitude	2000m	4000m
Cooling Method	Fan Cooling	
Ingress Protection	IP20	IP21
Characteristic		
Number of AC Output	2	
Display	LCD&APP	LCD&LED&APP
Communication Interface	RS485/ USB /CAN/ Wi-Fi	
Parallel Capability	9	



Features

-  **Oversizing Ratio**
Higher PV/AC ratio up to 1.5,
allowing greater energy harvest

 **Exceptional Load-carrying Capability**
Support battery discharge current of up to 280A
Support higher loads powered by battery only

 **Parallel Connection**
Support parallel connection up to 9 units

 **Powerful Instant Overload Capacity**
Support 2 times the rated power for 5
seconds in off-grid mode
-  **Smart Load Management**
Dual AC outputs to power loads on
demand priority

 **Generator Input**
Equipped with GEN port to connect with
diesel generator

 **Seamless Switchover**
UPS-level switching time $\leq$ 4ms

 **Superior High-Temperature Stability**
Allow full-power output up to 12kW under
high-temperature conditions

Specifications

Model	LVTS-15KW-HYD
Solar Input Data	
Recommended Max. PV Array Size	30000W
Max. PV Input Power	24000W
Max. Input Voltage	800V
Start-up Voltage	160V
Rated Input Voltage	550V
MPPT Operating Voltage Range	160~650V
MPPT Voltage Range (full load)	400~650V
Max. Input Current per MPPT	27+20A
Max. Short Circuit Current per MPPT	40+30A
Number of MPPTs	2
Number of Strings per MPPT	2+1
Max. Inverter Backfeed Current to The Array	0

Battery Data

Battery Type	Lead-acid or Lithium-ion
Rated Battery Voltage	48V
Battery Voltage Range	40~60V
Max. Charge/Discharge Current	290A
Max. Charge/Discharge Power	15000W
Battery Communication	CAN/RS485
Number of Battery Input	1

AC Input/Output Data (Grid, Load & Generator)

Rated AC Input/Output Active Power	15000W
Max. AC Input/Output Apparent Power	16500V
Peak Apparent Power (off-grid)	2 times of rated power, 10s
Rated AC Input/Output Current	22.8/21.8/20.9A
Max. AC Input/Output Current	25A
Max. Three-phase Unbalanced Output Current	34.1A
Max. Continuous AC Passthrough (grid to load)	50A
Max. Continuous GEN Passthrough (Gen to load)	45A
Max. Output Fault Current	50A
Max. Output Over Current Protection	73.5A
Rated Input/Output Voltage	220/380, 230/400, 240/415V
Input/Output Voltage Range	0.85Un-1.1Un V
Grid Connection Form	3L+N+PE
Rated Grid Frequency/Range	50/45~55, 60/55~65Hz
Power Factor	0.8 leading~0.8 lagging
THDi (nominal power)	< 3%
DC Injection Current	< 0.5%In
Switch time(ms)(Typ)	4

Efficiency

Max. Efficiency	97.6%
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Technical Data

European Efficiency	97.0%
MPPT Efficiency	>99.9%

Protection

PV Reverse Polarity Protection	yes
Anti-Islanding Protection	yes
Output Short Protection	yes
Ground fault monitoring	yes
Insulation Resistance Monitoring	yes
Over-current Protection	yes
Over-temperature Protection	yes
AC/DC Surge Protection	TYPE II(DC), TYPE II(AC)
AFCI Protection	Optional
DC Switch	yes
Residual Current Monitoring	yes
Grid Monitoring	yes

General Data

Dimension (W*H*D)	450×660×240mm(Excluding connectors and brackets)
Weight	39kg
Relative Humidity	0~100%
Operating Temperature Range(°C)	-40°C to +60°C, >45°C Derating
Storage Temperature	-45°C to +85°C
Noise Emission	<55 dB
Altitude	3000m
Cooling Method	Intelligent Air Cooling
Ingress Protection	IP66
Over Voltage Category	OVC II(DC), OVC III(AC)
Topology	Non-Isolated
Protective Class	I
Communication Interface	RS485/CAN/Bluetooth/WIFI, LAN/4G/GPRS(optional)
Power Grid Side Energy Detection Method	3 CTs, Meter(optional)
Display	LCD & APP
Standby / Internal Consumption	<25(night)
PV Connector	MC4
Battery Connector	Connector
AC Connector	Connector



LVTSG-125kS(PV250k)(261kWh)

LVTOPSUN ESS

5 Unique Advantages

- ★ Uses advanced 314Ah cells, delivering outstanding performance with long-term durability
- ★ Patented Liquid-cooling design at pack level, ensure high consistent thermal management at cell level
- ★ Multi-layers of escalating protection – from the cell, through the pack, to the entire system
- ★ Zero heat transfer between inverter and cells improves stability and extends lifespan
- ★ LVTOPSUN StorgeCloud: Smart remote control, AI optimisation, and instant troubleshooting – all in one platform

3 Leading Advantages

- <10ms transfer from on-grid to off-grid for uninterrupted power supply ①
 - Flexible system expansion, up to 1.25MW/15.66MWh, to meet growing energy needs ②
 - Supports remote monitoring and OTA upgrades on the StorageCloud app
- ① Transfers between on-grid and off-grid in under 20 milliseconds when using multiple inverters in parallel.
② When inverters in parallel >6 units, use of a LVTOPSUN power distribution cabinet is recommended.

DATASHEET

Models	LVTSG-125kS(PV250k)(261kWh)
System	
Rated energy capacity	261 kWh
Max. cycle rate	0.5 P
Max. cycle efficiency	90%
Usable energy capacity	235 kWh
Dimensions (W × H × D)	1500 × 1400 × 2250 mm
Dimensions (without inverter) (W × H × D)	1060 × 1400 × 2250 mm
Weight	2500 kg (Cabinet) + 170 kg (Inverter)
Operating temperature range	-25 ~ +55°C
Storage temperature range	0 ~ +40°C
Operating humidity range	≤95% (non-condensing)
Max. operation altitude	3000 m
System temperature control mode	Industrial-grade air-conditioning (Cabinet); Liquid-cooling (Pack); Intelligent fan-cooling (Inverter)
Fire suppression mode	Default: Aerosol, Explosion relief valve, Fire water inlet Optional: Flammable gas detector, Explosion relief panel, Explosion-proof exhaust fan, Audible and visual alarm
Ingress protection	IP54 (Cabinet) + IP66 (Inverter)
Anti-corrosion class (Battery)	C4/C5 (Optional)
Anti-corrosion class (Inverter)	C5
Noise (rated operating condition)	75 dB @ 1 m
Lightning protection	Type II (AC port), Type II (PV&Battery)
Protection mode	Anti-islanding protection, residual current detection, insulation resistance detection, AC overcurrent protection, and AC cable connection protection
Certification standards	IEC62619, IEC61000-6/2/4, IEC62040, IEC63056, IEC62477, UN38.3
Battery	
Cell type	LFP 3.2 V / 314 Ah
Cell cycle life	8000
System battery configuration	1P260S
Rated voltage	832 V
Operating voltage range	728 ~ 936 V
Rated DC current	157 A
Number of battery packs	5
Battery pack capacity	52.25 kWh
Battery pack weight	340 kg
Inverter	
Inverter model	S6-EH3P125K10-NV-YD-H
Rated output power	125 kW
Max. apparent output power@On-grid	125 kVA
Rated grid voltage	3/N/PE, 220 V / 380 V; 3/N/PE, 230 V / 400 V
Rating grid frequency	50 Hz / 60 Hz
AC grid frequency range	45 - 55 Hz / 55-65 Hz
Rated output current	189.9 A / 180.4 A
Max. apparent output power@Off-grid	1.6 times of rated power, 200 ms
Back-up switch time	< 10ms
Power factor	> 0.99 (0.8 leading - 0.8 lagging)
THDi / THDv (@linear load)	<2% / < 3%
Max. usable PV Input Power	250 kW
Recommended max. PV array size	250 kW
Max. input voltage	1000 V
Rated voltage	600 V
Start-up voltage	180 V
MPPT voltage range	150 - 950 V
Max. input current	10*42A
Max. short circuit current	10*60A
MPPT number / Max. input strings number	10/20
Communication	CAN, RS485-115200, Ethernet, Optional: Wi-Fi, Cellular, LAN Optional: Wi-Fi, Cellular



LVTSG-50kS(PV100k)(112kWh)

LVTOPSUN ESS

5 Unique Advantages

- ★ Uses advanced 314Ah cells, delivering outstanding performance with long-term durability
- ★ Patented Fan-cooling design at pack level, ensure high consistent thermal management at cell level
- ★ Multi-layers of escalating protection – from the cell, through the pack, to the entire system
- ★ Zero heat transfer between inverter and cells improves stability and extends lifespan
- ★ LVTOPSUN StorgeCloud: Smart remote control, AI optimisation, and instant troubleshooting – all in one platform

6 Leading Advantages

- <10ms transfer from on-grid to off-grid for uninterrupted power supply ①
- Flexible system expansion, up to 0.5MW/1.12MWh, to meet growing energy needs ②
- Supports remote monitoring and OTA upgrades on the StorageCloud app
 - ① Transfers between on-grid and off-grid in under 20 milliseconds when using multiple inverters in parallel.
 - ② When inverters in parallel >6 units, use of a LVTOPSUN power distribution cabinet is recommended.
- Combustible gas, smoke and temperature detection, system active exhaust, and fire alarm
- EMS, hybrid inverter and BMS integrated technology, support black start function, Offgrid operation, etc
- Support storing energy from diesel generator

DATASHEET

Models	LVTSG-50kS(PV100k)(112kWh)
System	
Rated energy capacity	112 kWh
Max. cycle rate	0.5 P
Max. cycle efficiency	90%
Usable energy capacity	100.8 kWh
Dimensions (W × H × D)	1100 × 1300 × 2300 mm
Dimensions (without inverter) (W × H × D)	780 × 1300 × 2300 mm
Weight	1700 kg (Cabinet) + 80 kg (Inverter)
Operating temperature range	-20 ~ +55°C
Storage temperature range	0 ~ +40°C
Operating humidity range	≤95% (non-condensing)
Max. operation altitude	3000 m
System temperature control mode	Industrial-grade air-conditioning (Cabinet); Liquid-cooling (Pack); Intelligent fan-cooling (Inverter)
Fire suppression mode	Default: Aerosol, Explosion relief valve, Fire water inlet Optional: Flammable gas detector, Explosion relief panel, Explosion-proof exhaust fan, Smoke and temperature detectors
Ingress protection	IP55 (Cabinet) + IP65 (Inverter)
Anti-corrosion class (Battery)	C4/C5 (Optional)
Anti-corrosion class (Inverter)	C4
Noise (rated operating condition)	75 dB @ 1 m
Lightning protection	Type II (AC port), Type II (PV&Battery)
Protection mode	Anti-islanding protection, residual current detection, insulation resistance detection, AC overcurrent protection, and AC cable connection protection
Certification standards	Safety EMC Standards: IEC/EN62109-1, IEC/EN62109-2, IEC61000-6-1/2/3/4, Grid Regulation: IEC61727, IEC62116, CEIO-21, EN50549, NRS 097, RD140, UNE217002, OVE-Richtlinie R25, G99, VDE-AR-N4105, UN38.3
Battery	
Cell type	LFP 3.2 V / 314 Ah
Cell cycle life	8000
System battery configuration	1P112S
Rated voltage	358.4 V
Operating voltage range	313.6~403.2 V
Rated DC current	157 A
Number of battery packs	7
Battery pack capacity	16.08 kWh
Battery pack weight	125 kg
Inverter	
Inverter model	SUN-50K-SG01HP3-EU-BM4
Rated output power	50 kW
Max. apparent output power@On-grid	50 kVA
Rated grid voltage	3/N/PE, 220 V / 380 V; 3/N/PE, 230 V / 400 V
Rating grid frequency	50 Hz / 60 Hz
AC grid frequency range	45 - 55 Hz / 55-65 Hz
Rated output current	75.8 A / 72.5 A
Max. apparent output power@Off-grid	1.5 times of rated power, 10ms
Back-up switch time	< 10ms
Power factor	> 0.99 (0.8 leading - 0.8 lagging)
THDi / THDv (@linear load)	< 3%
Max. usable PV Input Power	65 kW
Recommended max. PV array size	65 kW
Max. input voltage	1000 V
Rated voltage	600 V
Start-up voltage	180 V
MPPT voltage range	150 - 850 V
Max. input current	4*36A
Max. short circuit current	4*55A
MPPT number / Max. input strings number	4/8
Communication	CAN, Ethernet, Optional: Wi-Fi, Cellular, LAN Optional: Wi-Fi, Cellular

LVTS-(48-241)kWh-HV V1

It uses a high capacity 314Ah battery to support 6 clusters in parallel with a Maximum capacity of 1.446MWh.



5 Unique Advantages

- ★ Ultra Safe: Intelligent fire extinguishing system, detects and extinguishes fire in 5S
- ★ Easy Installation: cable connection between modules, plug-and-play
- ★ Long Life: LFP cells, 8000+ cycles, 10 years long life cycles
- ★ Active Cell Balancing: Maximum balancing current: 2.2A, Greatly increase the capacity utilization, rate of the battery pack
- ★ Fast Charge/Discharge: Max continuous charge/discharge current: Charge 0.6C(180A), Discharge 0.7C (200A)

3 Leading Advantages

- Uses advanced 314Ah cells, delivering outstanding performance with long-term durability
- Up to 10 clusters in parallel, 48.228KWh-2.41MWh capacity^[1]
- Supports remote monitoring and OTA upgrades on the Storage Cloud app

Model	LVTS-(48~241)kWh-HV V1
Battery Type	LiFePO ₄ (LFP)
Nominal Battery Energy	16.076kWh
Usable Battery Energy	15.272kWh
Nominal Capacity	314Ah
Nominal Voltage	51.2V
Module Number per Cluster	3~15Pcs
Operating Voltage	134.4V~864V
System Energy Range	48.228kWh~1.446MWh
Recommended Charge & Discharge C Rate	0.5C(157A)
Max. Charge & Discharge C Rate	Charge 0.6C(180A), Discharge 0.7C(200A)
Peak Discharge Current (25°C)	314A
Recommended Charge & Discharge Power	8.038KW
Max. Charge & Discharge Power	10.239KW
Depth of Discharge (DOD)	90% DOD/25°C/0.5C
Charging Temp. Range	0°C~55°C
Discharging Temp. Range	-20°C~55°C
Net Weight (kg) ^[2]	53.5+140*n
Single Cluster Dimension (W/D/H) ^[3]	490/850/150+240*n(With bracket and cover plate)
Protection Level	IP20
Communication	CAN/RS485
Cycle Life ^[4]	≥8000 Cycles
User Interface	WIFI+APP
Safety Protection	Built-in aerosol fire extinguisher
Cooling method	Forced wind cooling
Installation	Cable stacking
Expansion	Up to 6 clusters in parallel
Warranty Period ^[5]	5 Years
Battery Module Name	LVTS-512314-HV V1
Certification & Safety Standard	UN38.3, CE
Compatible Inverters	Solis/Deye/Magarevo/Atess/Growatt ect.

Modul	LVTSG504-1500V-250A
Operating Voltage	130~1500
Maximum Continuous Current	250A
Dimension (W/D/H)	440/800/230(Without bracket and cover plate)
Weight	35kg
Protection Level	IP20

[1] When cluster in parallel >6 units, use of a LVTOPSUN power distribution cabinet is recommended.

[2] Net Weight of Expansion Base and Expansion Upper Cover: 20kg.

[3] Height of Expansion Upper Cover: 80mm, "n" stands for the number of battery modules, up to a maximum of 4. If the installation is on an upper floor, you will need to evaluate the floor weighing before determining the number of stacks.

[4] Test conditions: 0.2C Charging & Discharging, 25°C, 90%DOD, 70%EOL

[5] Refer to LVTOPSUN Warranty Letter

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Information might be subject to change without notice during product improvement.

LVTS-(48~241)kWh-HV V2

It uses a high capacity 314Ah battery to support 6 clusters in parallel with a Maximum capacity of 1.446MWh.



5 Unique Advantages

- ★ Ultra Safe: Intelligent fire extinguishing system, detects and extinguishes fire in 5S
- ★ Easy Installation: cable connection between modules, plug-and-play
- ★ Long Life: LFP cells, 8000+ cycles, 10 years long life cycles
- ★ Active Cell Balancing: Maximum balancing current: 2.2A, Greatly increase the capacity utilization, rate of the battery pack
- ★ Fast Charge/Discharge: Max continuous charge/discharge current: Charge 0.6C(180A), Discharge 0.7C (200A)

3 Leading Advantages

- Uses advanced 314Ah cells, delivering outstanding performance with long-term durability
- Up to 10 clusters in parallel, 48.228KWh-1.446MWh capacity^[1]
- Supports remote monitoring and OTA upgrades on the Storage Cloud app

Model	LVTS-(48~241)kWh-HV V2
Battery Type	LiFePO ₄ (LFP)
Nominal Battery Energy	16.076kWh
Usable Battery Energy	15.272kWh
Nominal Capacity	314Ah
Nominal Voltage	51.2V
Module Number per Cluster	3~15Pcs
Operating Voltage	134.4V~864V
System Energy Range	48.228kWh~1.446MWh
Recommended Charge & Discharge C Rate	0.5C(157A)
Max. Charge & Discharge C Rate	Charge 0.6C(180A), Discharge 0.7C(200A)
Peak Discharge Current (25°C)	314A
Recommended Charge & Discharge Power	8.038KW
Max. Charge & Discharge Power	10.239KW
Depth of Discharge (DOD)	90% DOD/25°C/0.5C
Charging Temp. Range	0°C~55°C
Discharging Temp. Range	-20°C~55°C
Net Weight (kg) ^[2]	53.5+140*n
Single Cluster Dimension (W/D/H) ^[3]	590/865/400+270*n(With bracket and cover plate)
Protection Level	IP20
Communication	CAN/RS485
Cycle Life ^[4]	≥8000 Cycles
User Interface	WIFI+APP
Safety Protection	Built-in aerosol fire extinguisher
Cooling method	Forced wind cooling
Installation	Cable stacking
Expansion	Up to 6 clusters in parallel
Warranty Period ^[5]	5 Years
Battery Module Name	LVTS-512314-HV V2
Certification & Safety Standard	UN38.3, CE
Compatible Inverters	Solis/Deye/Magarevo/Atess/Growatt ect.

Modul	LVTSG503-1500V-250A
Operating Voltage	130-1500
Maximum Continuous Current	250A
Dimension (W/D/H)	590/865/250(With bracket and cover plate)
Weight	35kg
Protection Level	IP20

[1] When cluster in parallel >6 units, use of a LVTOPSUN power distribution cabinet is recommended.

[2] Net Weight of Expansion Base and Expansion Upper Cover: 18.5kg.

[3] Height of Expansion Upper Cover: 80mm, "n" stands for the number of battery modules, up to a maximum of 8. If the installation is on an upper floor, you will need to evaluate the floor weighing before determining the number of stacks.

[4] Test conditions: 0.2C Charging & Discharging, 25°C, 90%DOD, 70%EOL

[5] Refer to LVTOPSUN Warranty Letter

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Information might be subject to change without notice during product improvement.



500W AIO		
Basic Information		
Rated Capacity	1004Wh	
Battery Type	LiFePO4	
Cell Spec	3.2V/314Ah Monocell	
Cycle life	8000 Cycles @ 90% DOD/25°C/0.5C	
System Structure	Single cell integrated design	
Dimension (W×D×H mm)	246×150×303mm	
Weight(kg)	10Kg	
Working Temperature	Charge : 0~45°C / Discharge : -20~55°C	
Cooling	Smart air cooling	
Display	LCD power/Status screen	
Architecture	Single-cell, 3-in-1 (INV+Batt+MPPT)	
IP Rating	IP20	
Warranty	2 years	
AC Input		
Rated Input Voltage	230Vac	
Rated Input Frequency	50Hz	
Input Power Factor	> 0.95	
AC Output		
Rated Power	500W	
Bypass Power	800W(6Amax)	
Voltage/Frequency	230Vac±5Vac/50Hz±0.5%	
Outlet	1×GB AC outlet	
EPS	≤20ms	
PV Input		
Input Voltage Range	11-55Vdc	
Maximum Input Current	10A max	
Maximum Output Current	80A max	
Maximum Input Power	300W max	
DC Output		
USB	5V/1A	
Standard Compliance(more available upon request)		
Certificates	CE,UN38.3	

LVTS-64314		
Rated Power	1000W	
Nominal Capacity	2009.6Wh	
Grid Input Voltage	195.5~264.5VAC	
Grid Input Frequency	50Hz/60Hz	
AC Charging Source	1000W	
AC Output Voltage	195.5~264.5VAC	
Operating Frequency	50Hz/60Hz	
PV Input Voltage	12-60 VDC	
Maximum PV Input Current	15A	
Maximum PV Input Power	550W	
Cell Technology	LiFePO4	
Battery Energy	314Ah	
Cycle Life	8000 Cycles	
Weight	18.3 kg	
Dimension	L341*W316*H448mm	
Working Temperature	Charge: 0~40°C / Discharge: -20~45°C	
Storage Temperature	-20°C~60°C	
Max Operating Altitude	< 3000m	
Operating/Storage Humidity	10%-90%	
IP Rating	IP20	
Display	LCD	
Certifications	UN38.3	
Protections	AC input over & under voltage protection	
	AC output over current protection	
	Battery overcharge & overdischarge protection	
	Cell high & low temperature protection	
	Internal over temperature protection / Short circuit protection	
	PV input reverse connection protection / PV input power limitation	



LVTS-512314-G5

Nominal Votage	51.2 Vdc
Nominal Capacity	314Ah
Battery Energy	51.2V,314Ah,16.07KWh
Charge Current	150A
Charge Power	7680W
Dischargeur Current	200A
Discharge Power	10240W
Short Circuit Current\	540A
Dimension (W×D×H mm)	480×243×870mm
Weight(kg)	120Kg
Installation	Floor stand
Display	SOC status indicator, LCD Display
Communication	RS232、RS485、CAN
Product Features	Automatic sensing fire extinguishing device/Bluetooth/WiFi
Working Temperature	Charge : 0~45℃ / Discharge : -20~55℃
Balanced Mode	2A Active Equalization
Battery Heating	500W, Low-temperature Heating Function
Operating/Storage Humidity	≤95%RH
Max Operating Altitude	≤2000m
IP Rating	IP65
Cell Technology	LiFePO ₄ , Lithium Iron Phosphate
Cycle life	8000 Cycles @ 90% DOD/25℃/0.5C
Scalability	Max 63 batteries in Parallel
Warranty	10 years
Certificates	CE,UN38.3

Model: LVTS-512314-AIO

PV Input	
Maximum PV Input Power (W)	12000W
Maximum PV Input Voltage (V)	500V
MPPT Voltage Range (V)	150~450V
Start-up Voltage (V)	125V
Maximum PV Input Current (A)	20A/20A
Number of MPPT Trackers	2
Battery Input	
Battery Voltage Range (V)	40~60V
Maximum Charge Current (A)	135A
Maximum Discharge Current (A)	135A
Battery Charging Strategy	Adaptive BMS (Battery Management System)
Number of Battery Inputs	1
AC Input/Output	
Rated AC Input/Output Active Power (W)	6000W
Maximum AC Input/Output Apparent Power (VA)	6600VA
Peak Power (Off-grid) (W)	>200%, 15sec
Rated AC Input/Output Current (A)	26.1A
Maximum AC Input/Output Current (A)	30/28.7A
Maximum Continuous AC Bypass Current (A)	40A
AC Input Voltage Range (V)	184-276V
Maximum AC Input Voltage (V)	280V
Total Harmonic Distortion (THD)	<3%
Nominal Operating Frequency	50/60Hz

Interfaces	
Communication Interfaces	RS485 / CAN
Monitoring Method	WIFI / Bluetooth
Battery	
Cell Technology	LiFePO ₄ (Lithium Iron Phosphate)
Nominal Voltage	51.2V
Nominal Capacity	314Ah
Battery Energy	16076Wh
Cycle Life	8000 Cycles
General Specifications	
Working Temperature Range	-40~60℃
Max Operating Altitude	3000m
Cooling Method	Intelligent Fan Cooling
Noise Level	<45dB
IP Rating	IP21
Dimension (W×D×H mm)	550×247×1000mm
Weight (kg)	130kg
Efficiency	
Maximum Efficiency	97.60%
MPPT Tracking Efficiency	>99%