

# INTELLIGENT ENERGY STORAGE SERIES PRODUCTS

One-stop solar  
and Energy storage system solution provider



Responsibility·Innovation·Excellence·Sharing

The 36th Research Institute of China Electronics Technology Group Corporation

Zhejiang JEC New Energy Technology Co.,Ltd

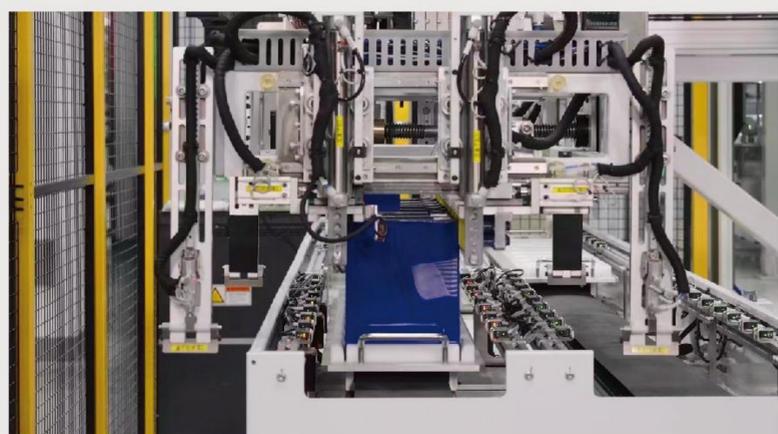


## Company Overview

Zhejiang JEC New Energy Technology CO., Ltd (CETCsolar) is founded in August 2013, in Jiaxing, Zhejiang Province. Formly New Energy Sector of No.36 Research Institute of CETC( No.36 Research Institute), founded in September 2008, is a holding company of No. 36 Research Institute. We specializes in design, construction, operation and maintenance for distributed PV power station and environmental PV system. Our core products are commercial, public and household PV system, PV micro system, PV modules and large-scale energy storage on the source-grid side and industrial and commercial energy storage

CETCsolar relying on the strong product development capability of No.36 Research Institute, has a professional system design capability and ISO9001 quality assurance system, is the member unit of the focus of Zhejiang Science and Technology Innovation Team(New Energy Power Electronics Technology Innovation Team), is the first team of the focus of the technological innovation in Jiaxing city, has a Zhejiang Province key enterprise institute--Institute of PV equipment and intelligent control, holds 21 patents. Our solar products have acquired TÜV , CE, CQC, SGS, INMETRO, DEKRA certification.

We CETCsolar will uphold the rigorous style of military workers, provide the best quality products and service to our customers and help them create value.





# 116kW/233kWh

## Distributed Liquid Cooling Integrated Machine

- Convenient and flexible**

  - ◆ High power density design, occupying only 1.3 m<sup>2</sup>
  - ◆ Modular, easily scalable, and easy to relocate
- Safe and reliable**

  - ◆ Intelligent control with early system fault warning
  - ◆ Single-cluster precise control with electrical and fire safety isolation
- Cost-effective**

  - ◆ High-efficiency full liquid cooling with system circulation efficiency over 90%
- Intelligent maintenance**

  - ◆ Multiple control modes suitable for various application scenarios
  - ◆ Intelligent 3S system collaborative control with millisecond-level response

### Dc Parameters

Battery cell type	LFP 3.2V/280Ah
Battery module configuration	11.648kWh/1P13S
Battery pack configuration	46.592kWh/1P52S
Battery system configuration	232.96kWh/1P260S
Rated voltage	832V
Voltage range	728~936V
System capacity	232.96kWh
Rated charge/discharge power	0.5C

### Ac Parameters

Rated power(kW)	116
Maximum power(kW)	127.6
Rated current(A)	168
Wiring method	Three-phase three-wire / Three-phase four-wire
Allowed grid voltage(Vac)	380/400(-15%~15%)
Allowed grid frequency(Hz)	50/60(-2.5~2.5)
Total current harmonic distortion rate	≤3%
Voltage ripple coefficient	≤1
Power factor	0.99/-1

### System Parameters

Charge and discharge efficiency	> 92%
Charge and discharge rate	0.5C
Depth of discharge	90%DOD
Cycle life	≥6000cyc @25°C, 90%DOD, 80%EOL
Cabinet protection level	IP55
Battery pack protection level	IP67
Corrosion resistance level	C3/C5
Cooling method	Liquid cooling
Operating temperature	-20°C ~ 55°C
Operating humidity	5%~95%RH(Non-condensing)
Operating altitude	2000m( > 2000mDerating)
Fire suppression medium	Aerogel
Maximum number of parallel units	10
Communication interface	Ethernet / RS485
Control method	Local EMS / Cloud platform / Mobile app
Three-phase imbalance management	Support
Off-grid mode	Support
Dimensions (W * D * H mm)	1000*1300*2450mm (W*D*H)
Weight (kg)	2800



# 125kW/241kWh

## Distributed Air-cooled Integrated Machine

### Convenient and flexible

- ◆ High power density design, occupying only 1.21 m<sup>2</sup>
- ◆ Modular, easily scalable, and easy to relocate

### Safe and reliable

- ◆ Intelligent control with early system fault warning
- ◆ Single-cluster precise control with electrical and fire safety isolation

### Cost-effective

- ◆ PACK accordion duct-style air cooling design for more reliable temperature control

### Intelligent maintenance

- ◆ Multiple control modes suitable for various application scenarios
- ◆ Smart 3S system collaborative control with millisecond-level response

#### Dc Parameters

Battery cell type	LFP 3.2V/314Ah
Battery module configuration	10.048kWh/1P10S
Battery pack configuration	20.096kWh/1P20S
Battery system configuration	241.152kWh/1P240S
Rated voltage	768V
Voltage range	672~864V
System capacity	241.152kWh
Rated charge/discharge power	0.5C

#### Ac Parameters

Rated power(kW)	125
Maximum power(kW)	137.5
Rated current(A)	180
Wiring method	Three-phase four-wire
Allowed grid voltage(Vac)	380/400(-15%~15%)
Allowed grid frequency(Hz)	50/60(-2.5~2.5)
Total current harmonic distortion rate	≤3%
Voltage ripple coefficient	≤1
Power factor	0.99/1~1

#### System Parameters

Charge and discharge efficiency	> 92%
Charge and discharge rate	0.5C
Depth of discharge	90%DOD
Cycle life	≥6000cyc @25°C, 90%DOD, 80%EOL
Cabinet protection level	IP54
Battery pack protection level	IP20
Corrosion resistance level	C3/C5
Cooling method	Air cooling
Operating temperature	-20°C ~ 55°C
Operating humidity	5%~95%RH(Non-condensing)
Operating altitude	2000m( > 2000mDerating)
Fire suppression medium	Perfluorohexane (often referred to as PFH)
Maximum number of parallel units	10
Communication interface	Ethernet / RS485
Control method	Local EMS / Cloud platform / Mobile app
Three-phase imbalance management	Supported
Off-grid mode	Supported
Dimensions (W * D * H mm)	1100*1100*2000mm (W*D*H)
Weight (kg)	2600

# 5MWh

## Energy Storage Prefabricated Cabin



### Convenient and flexible

- ◆ Pre-installed battery cells, shipped as a complete cabinet, no on-site installation required
- ◆ PACK with independent maintenance window, no-box maintenance, high maintenance efficiency

### Cost-effective

- ◆ Equipped with 314Ah high-energy-density battery cells to help reduce costs and increase efficiency
- ◆ High-integration variable-frequency intelligent temperature control technology, combined with multi-level flow control, further reduces energy consumption

### Safe and reliable

- ◆ Multi-level fire protection design with advanced AI fault warning features
- ◆ Single-cluster architecture, electrical isolation, independent battery compartments, and dual over-charge/over-discharge protection

### Intelligent maintenance

- ◆ Multiple control modes suitable for various application scenarios
- ◆ Supports fault recording for easy fault analysis and troubleshooting

#### Battery Parameters

Battery cell type	3.2V/314Ah
Voltage range	1040V ~ 1500V
Battery composition method	12*1P416S
Rated capacity	5.01MWh
Maximum charge/discharge rate	0.5P Charge/0.5P Discharge

#### System Parameters

Temperature control method	Liquid cooling
Standard fire protection	PACK-level perfluorohexane
Weight	Approximately 45 tons
External dimensions of the cabinet (W, H, D)	6058 × 2896 × 2550 mm
Cabinet protection level	IP54
Operating temperature range	Operating temperature range: -30°C to 55°C
Corrosion resistance level	Corrosion resistance level: C4-M (C5-H available upon request)
Noise	Noise: 65 dB (1 meter from the system)
Communication protocol	Communication protocols: CAN, Modbus RTU, Modbus TCP/IP, IEC61850 MMS



# 51.2V 200Ah

## LONG LIFE LI-ION BATTERY

### SAFETY

- ◆ Long life type prismatic LiFePO4 cells, suitable for energy storage application.

### DESIGN

- ◆ -20°C~+60°C widely temperature range.
- ◆ Maintenance free.

### SCALABILITY

- ◆ Parallel support for more energy.
- ◆ Flexible and easily installation, rack mounted or wall mounted.

### BMS

- ◆ Independent protection for charge and discharge.
- ◆ SOC, SOH display and PC software for detailed operation.

Model	
Nominal Voltage [V]	51.2
Nominal Capacity [Ah]	200
Total Energy [kWh]	10.24
Max. Charging Continuous Current [A]	150
End Of Charging Voltage [V]	57.6
Max. Discharging Continuous Current [A]	150
End Of Discharge Voltage [V]	44.8
Dimension (W*D*H,mm)	150*560*865
Weight [Kg]	83
Protection Class	IP20/IP55
Operation Humidity	0~95%RH (No Condensing)
Operating Temperature Range	Charge:0~+55°C; Discharge:-20°C~+60°C
Cycle Life	5000 @25°C, 0.5C, 90%DOD, 80%EOL      6000 @25°C, 0.5C, 90%DOD, 70% EOL
Protection	Over Charge, over Discharge, Over Current , Over Temperature And Low Temperature Protection
MOFEST	Automatic Cutting Out
Communication Port	RS485 & CAN (Pack To Pcs), RS485 (Pack To Pack)
Certification	UN38.3, MSDS
Serial Support	No Support
Parallel Support	Yes, Max 10 PCS
Optional Parts	Heater
Connecting Terminal	180A, 4P
Circuit Breaker	125A, 2P
Over-Charge Alarm & Protection	
Over-Charge Alarm	3.5V(For Cell) 52.5V(For Pack)
Over-Charge Protection	3.65V(For Cell) 54.75V(For Pack)
Over-Charge Protection Delay	1000ms
Over-Charge Release	3.45V(For Cell) 51.75V(For Pack)
Over-Discharge Alarm & Protection	
Over-Discharge Alarm	2.9V(For Cell) 43.5V(For Pack)
Over-Discharge Protection	2.7V(For Cell) 40.5V(For Pack)
Over-Discharge Protection Delay	1000ms
Over-Discharge Release	2.95V(For Cell) 44.25V(For Pack)

# 51.2V 100Ah

## LONG LIFE LI-ION BATTERY



### SAFETY

- ◆ Long life type prismatic LiFePO4 cells, suitable for energy storage application.

### DESIGN

- ◆ -20°C~+60°C widely temperature range.
- ◆ Maintenance free.

### SCALABILITY

- ◆ Parallel support for more energy.
- ◆ Flexible and easily installation, rack mounted or wall mounted.

### BMS

- ◆ Independent protection for charge and discharge.
- ◆ SOC, SOH display and PC software for detailed operation.

Model	
Nominal Voltage [V]	51.2
Nominal Capacity [Ah]	100
Total Energy [kWh]	5.12
Max. Charging Continuous Current [A]	100
End Of Charging Voltage [V]	57.6
Max. Discharging Continuous Current [A]	100
End Of Discharge Voltage [V]	44.8
Dimension (W*D*H,mm)	400*520*145
Weight [Kg]	40.5
Protection Class	IP20
Operation Humidity	0~95%RH (No Condensing)
Operating Temperature Range	Charge:0~+55°C; Discharge:-20°C~+60°C
Cycle Life	5000 @25°C, 0.5C, 90%DOD, 80%EOL      6000 @25°C, 0.5C, 90%DOD, 70%EOL
Protection	Over Charge, Over Discharge, Over Current, Over Temperature And Low Temperature Protection
MOFEST	Automatic Cutting Out
Communication Port	RS485 & CAN (Pack To Pcs), RS485 (Pack To Pack)
Certification	UN38.3, MSDS
Serial Support	No Support
Parallel Support	Yes, Max 15 PCS
Optional Parts	Heater
Connecting Terminal	100A, 4P
Circuit Breaker	125A, 1P
Over-Charge Alarm & Protection	
Over-Charge Alarm	3.5V(For Cell) 52.5V(For Pack)
Over-Charge Protection	3.65V(For Cell) 54.75V(For Pack)
Over-Charge Protection Delay	1000ms
Over-Charge Release	3.45V(For Cell) 51.75V(For Pack)
Over-Discharge Alarm & Protection	
Over-Discharge Alarm	2.9V(For Cell) 43.5V(For Pack)
Over-Discharge Protection	2.7V(For Cell) 40.5V(For Pack)
Over-Discharge Protection Delay	1000ms
Over-Discharge Release	2.95V(For Cell) 44.25V(For Pack)

# 25.6V 100Ah

## LONG LIFE LI-ION BATTERY



### SAFETY

- ◆ Long life type prismatic LiFePO4 cells, suitable for energy storage application.

### DESIGN

- ◆ -20°C~+60°C widely temperature range.
- ◆ Maintenance free.

### SCALABILITY

- ◆ Parallel support for more energy.
- ◆ Flexible and easily installation, rack mounted or wall mounted.

### BMS

- ◆ Independent protection for charge and discharge.
- ◆ SOC, SOH display and PC software for detailed operation.

Model	
Nominal Voltage [V]	25.6
Nominal Capacity [Ah]	100
Total Energy [kWh]	2.56
Max. Charging Continuous Current [A]	100
End of charging voltage [V]	28.8
Max. Discharging Continuous Current [A]	100
End of discharge voltage [V]	22.4
Dimension (W*D*H,mm)	245*530*145
Weight [Kg]	20
Protection class	IP20
Operation Humidity	0~95%RH (No Condensing)
Operating Temperature Range	Charge:0~+55°C; Discharge:-20°C~+60°C
Cycle Life	5000 @25°C, 0.5C, 90%DOD, 80%EOL      6000 @25°C, 0.5C, 90%DOD, 70%EOL
Protection	Over Charge, Over Discharge, Over Current, Over Temperature and Low Temperature Protection
MOFEST	Automatic Cutting Out
Communication Port	RS485 & CAN (Pack To Pcs), RS485 (Pack To Pack)
Certification	UN38.3, MSDS
Serial Support	No Support
Parallel Support	Yes, Max 15 PCS
Optional Parts	Heater
Connecting Terminal	100A, 4P
Circuit Breaker	125A, 1P
Over-Charge Alarm & Protection	
Over-Charge Alarm	3.5V(For Cell) 28V(For Pack)
Over-Charge Protection	3.65V(For Cell) 29.2V(For Pack)
Over-Charge Protection Delay	1000ms
Over-Charge Release	3.45V(For Cell) 27.6V(For Pack)
Over-Discharge Alarm & Protection	
Over-Discharge Alarm	2.9V(For Cell) 23.2V(For Pack)
Over-Discharge Protection	2.7V(For Cell) 21.6V(For Pack)
Over-Discharge Protection Delay	1000ms
Over-Discharge Release	2.95V(For Cell) 23.6V(For Pack)

# 100/200/250kVA

## Flexible Interconnection Device



### Grid side

- ◆ Inter-station power sharing to address heavy load issues in the power distribution area
- ◆ Fault isolation and power outage support to ensure supply reliability
- ◆ Power quality management for the distribution area to improve supply quality
- ◆ Source-load-storage intelligent interaction to address efficient integration and utilization of solar storage and charging systems
- ◆ Backend monitoring system with collaborative control, enabling online monitoring of enterprise transformers and critical production loads. This ensures that energy usage is observable, measurable, adjustable, and controllable.

### User side

- ◆ Power support between light and heavy-load transformers, achieving dynamic capacity expansion. This approach delays the need for transformer capacity upgrades, reducing both expansion costs and capacity-related electricity fees.
- ◆ Flexible interaction between photovoltaic, energy storage, and enterprise loads allows precise control of peak electricity demand, reducing demand charges.
- ◆ Backend monitoring system with collaborative control, providing online monitoring of enterprise transformers and critical production loads. This ensures that energy usage is observable, measurable, adjustable, and controllable.
- ◆ Intelligent power interaction between multiple energy storage grid points, creating an integrated energy storage system. This approach maximizes transformer capacity and expands energy storage integration capacity.
- ◆ Equipped with intelligent integrated control functions for source, grid, load, and storage, enabling enterprise microgrid autonomy and maximizing auxiliary service revenue for the enterprise.

### DC Parameters

Rated voltage (V)	750
Voltage range (V)	700~800
Rated current (A)	150、270、350
Voltage ripple coefficient	No more than 1%

### AC Parameters

Rated power (kW)	100, 200, 250 kW
Rated voltage (V)	AC 380V
Voltage range	$U_n \pm 10\% U_n$
Wiring method	Three-phase four-wire
Rated frequency	50Hz
Frequency range	$50\text{Hz} \pm 0.8\text{Hz}$
Output harmonics	$\leq 3\%$ (at rated power)
Leakage current	$< 100\text{mA}$
Power step response time	$< 100$ milliseconds
Voltage ripple coefficient	$\leq 1$

### System Parameters

Number of ports	Dual port
No-load loss	$\leq 0.5\%$
Capacity (kVA)	Dual-port 100 / 200 / 250 kVA
Reactive power compensation capability	Single-side $\geq 15\%$ of transformer capacity
System topology	AC side three-phase four-wire, AC/DC hybrid loop, excluding isolation transformer
Function description	Overload transfer, power outage transfer, source-load interaction, AC/DC hybrid power supply
Cabinet protection level	IP54 (outdoor) / IP20 (indoor)
Cooling method	Air cooling
Installation method	Floor-mounted / Pole-mounted
Compliance standards	GB/T 34120-2017
Operating temperature	-20°C to 45°C
Storage temperature	-20°C to 70°C
Operating humidity	5% to 95% RH (non-condensing)
Operating altitude	2000m (derating above 2000m)
Communication interface	Ethernet / RS485
Communication protocol	MODBUS
Control method	Local EMS / Cloud platform
Three-phase imbalance management	Supported
Off-grid mode	800 × 800 × 2200 mm / 1000 × 800 × 2200 mm
Dimensions (W * D * H mm)	



# 30kW/58.98kWh

## Photovoltaic And Energy Storage Integrated Cabinet

### Photovoltaic and energy storage integration

- ◆ Supports the integration of photovoltaic, energy storage batteries, grid, and loads. DC busbar connection with energy conversion that is economical and efficient.

### Flexible arrangement

- ◆ Modular design for the entire cabinet, easy to install and maintain; DC/DC, DC/AC, and STS modules can be freely combined to suit different needs.

### Safe and reliable

- ◆ Core modules such as DC/DC, DC/AC, and STS are certified by GB and CE standards.

### Intelligent control

- ◆ Features embedded intelligent control functions including peak shaving and valley filling, load tracking and demand control, global monitoring, seamless grid connection and disconnection, and pure off-grid load handling.

#### DC Parameters

Cell Specifications	3.2V 72Ah
Battery Pack Series/Parallel Configuration	1P32S
Number of Battery Packs	8
Number of Battery Clusters	1
Rated Operating Voltage	819.2V
Operating Voltage Range	716.8~921.6V
Capacity	58.98kWh
Maximum Charge/Discharge Power	0.5C

#### AC Parameters

Rated Power (kW)	30
Maximum Power (kW)	33
Rated Current (A)	43
Rated Voltage (V)	400
DC Component	≤0.2%
Harmonic Distortion Rate	≤3% (Full load)
Grid Voltage Range (V)	400(-10% ~ +10%)
Grid Rated Frequency (Hz)	50
Isolation Method	None
Power Factor	-0.99 ~ +0.99
Charge/Discharge Conversion Time	<100ms
Grid Connection/Disconnection Switching Time	<20ms

#### Photovoltaic Input

Rated Input Voltage (V)	350
Maximum Power (kW)	30
MPPT Voltage Range (V)	200~850
MPPT Full Load Voltage Range (V)	200~850

#### General Parameters

Protection Level	IP55
Operating Temperature	-20°C ~ 50°C
Dimensions (W * D * H mm)	1310*950*1900
Weight (kg)	800
BMS Communication Method	CAN, RS485
Altitude	3000m (>2,000 Derating)



# 50kW/103.2kWh

## Photovoltaic And Energy Storage Integrated Cabinet

### Photovoltaic and energy storage integration

- ◆ Supports the integration of photovoltaic, energy storage batteries, grid, and loads. DC busbar connection with energy conversion that is economical and efficient.

### Flexible arrangement

- ◆ Modular design for the entire cabinet, easy to install and maintain; DC/DC, DC/AC, and STS modules can be freely combined to suit different needs.

### Safe and reliable

- ◆ Core modules such as DC/DC, DC/AC, and STS are certified by GB and CE standards.

### Intelligent control

- ◆ Features embedded intelligent control functions including peak shaving and valley filling, load tracking and demand control, global monitoring, seamless grid connection and disconnection, and pure off-grid load handling.

#### DC Parameters

Cell Specifications	3.2V 72Ah
Battery Pack Series/Parallel Configuration	1P32S
Number of Battery Packs	7
Number of Battery Clusters	2
Rated Operating Voltage	716.8V
Operating Voltage Range	627.2~806.4V
Capacity	103.2kWh
Maximum Charge/Discharge Power	0.5C

#### AC Parameters

Rated Power (kW)	50
Maximum Power (kW)	55
Rated Current (A)	72
Rated Voltage (V)	400
DC Component	≤0.5%
Harmonic Distortion Rate	≤3% (Full load)
Grid Voltage Range (V)	400(-20% ~ +15%)
Grid Rated Frequency (Hz)	50/60±2.5
Isolation Method	None
Power Factor	-0.99 ~ +0.99
Charge/Discharge Conversion Time	<100ms
Grid Connection/Disconnection Switching Time	<20ms

#### Photovoltaic Input

Rated Input Voltage (V)	500
Maximum Power (kW)	50
MPPT Voltage Range (V)	350~850
MPPT Full Load Voltage Range (V)	350~850

#### General Parameters

Protection Level	IP55
Fire Suppression System	Supported
Operating Temperature	-20°C to 50°C
Dimensions (W * D * H mm)	1770 × 1000 × 2075 mm
Weight (kg)	1400 kg
BMS Communication Method	CAN, RS485
PCS Cooling Method	Intelligent air cooling with temperature control
Battery Cooling Method	Air cooling
Altitude	2000m (derating above 2000m)

# 100kW/200.7kWh

## Photovoltaic And Energy Storage Integrated Cabinet



### Photovoltaic and energy storage integration

- ◆ Supports the integration of photovoltaic, energy storage batteries, grid, and loads. DC busbar connection with energy conversion that is economical and efficient.

### Flexible arrangement

- ◆ Modular design for the entire cabinet, easy to install and maintain; DC/DC, DC/AC, and STS modules can be freely combined to suit different needs.

### Safe and reliable

- ◆ Core modules such as DC/DC, DC/AC, and STS are certified by GB and CE standards.

### Intelligent control

- ◆ Features embedded intelligent control functions including peak shaving and valley filling, load tracking and demand control, global monitoring, seamless grid connection and disconnection, and pure off-grid load handling.

#### DC Parameters

Cell Specifications	3.2V 280Ah
Battery Pack Series/Parallel Configuration	1P16S
Number of Battery Packs	14
Number of Battery Clusters	1
Rated Operating Voltage	716.8V
Operating Voltage Range	627.2~806.4V
Capacity	200.7kWh
Maximum Charge/Discharge Power	0.5C

#### AC Parameters

Rated Power (kW)	100
Maximum Power (kW)	110
Rated Current (A)	145
Rated Voltage (V)	400
DC Component	≤0.5%
Harmonic Distortion Rate	≤3% (Full load)
Grid Voltage Range (V)	400V(-20% ~ +15%)
Grid Rated Frequency (Hz)	50Hz/60Hz±2.5Hz
Isolation Method	None
Power Factor	-0.99 ~ +0.99
Charge/Discharge Conversion Time	<100ms
Grid Connection/Disconnection Switching Time	<20ms

#### Photovoltaic Input

Rated Input Voltage (V)	900
Maximum Power (kW)	120
MPPT Voltage Range (V)	200~900
MPPT Full Load Voltage Range (V)	300~900

#### General Parameters

Protection Level	IP55
Fire Suppression System	Supported
Operating Temperature	-20°C to 50°C
Dimensions (W * D * H mm)	1800 × 1200 × 2000 mm
Weight (kg)	2400 kg
BMS Communication Method	CAN, RS485
PCS Cooling Method	Intelligent air cooling with temperature control
Battery Cooling Method	Air cooling
Altitude	3000m (derating above 2000m)



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