



# ELECOD Modular Solution

## Energy Storage System



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"Innovation Advocator" for Industrial and Commercial Modular photovoltaic Energy Storage System.
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ELECOD has successfully put into operation multiple energy storage projects around the world.

ELECOD



# ABOUT US

Shenzhen Elecod Electric Co., Ltd



## “RESP”

### Reliable Energy Solution Partner for Storage System

Professional R&D team  
High-level solution capabilities  
Experienced customized system solutions OEM&ODM  
Provide the best products and integrated solutions



ELECOD's primary product offering is the modular optical storage system. The company is headquartered in Shenzhen and maintains additional offices in Beijing, Nanjing, and Chengdu.

Our proficient team possesses more than 15 years of expertise in new energy and automation of distribution networks, accompanied by numerous patents and published works. Comprehend customer requirements across all facets conduct research and innovate novel products and solutions deliver optimal products and comprehensive integrated resolutions.

We have forged robust alliances with prestigious universities, such as Tsinghua University, Harbin Institute of Technology, Huazhong University of Science and Technology, and Southeast University. These partnerships have significantly contributed to our advancements in power electronic conversion technology and control of power system stability.

*To Be A Pioneer In Upgrading, Evolving, and  
Transforming In The field of Energy Industry.*

*Stephen Ho.*



Stephen Ho  
Founder and CEO

## ELECOD Modular Solution Energy Storage System



Peak shaving and valley filling are just one of the most common applications in industry and commerce. We need to combine energy characteristics such as photovoltaics and wind power with users' electricity characteristics and habits to look at energy storage and improve the economics of project investment by improving the availability of products.

We define standard DC/DC modules (suitable for photovoltaic, energy storage, hydrogen production, remote supply), DC/AC modules (suitable for photovoltaic, energy storage, flexible straight), STS modules (suitable for seamless switching, uninterrupted power supply). In the end, the three power modules can be interchanged to meet the varied requirements of customers.



GENERATION



STORAGE



LOAD

ELECOD's modular solutions for energy storage technology, including:

- › Electricity and demand management for industry and commerce
- › PV storage charge
- › Backup power for the IDC and communications base
- › Islands, mountain border posts and other independent electricity areas
- › Public power distribution area on the power side



# WE PROVIDE

## ELECOD Power Module and Converter

### Delivering Comprehensive ODM/OEM Solutions

Elecod complies with ISO 9001 standards during all processes. We persistently innovate premium products distinguished by their distinctive designs.

### Adhering to Globally Recognized Quality Standards

We precisely oversee production to provide clients with top-tier products and satisfying post-purchase support. Each item bears the CE and IEC certifications, attesting to their quality.



Energy Storage Converter  
Build-in Transformer, 50-150kW



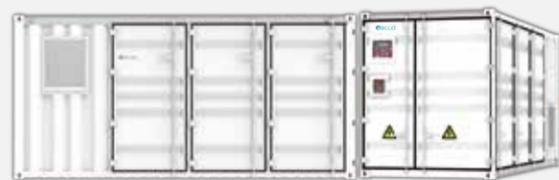
Energy Storage Converter  
Indoor/Outdoor type, 250-1000kW



Outdoor Cabinet Energy Storage System  
100kW-215kWh



Photovoltaic and Storage Hybrid Inverter  
Indoor/Outdoor type, 50-250kW



Containerized Energy Storage System  
500kWh-2000kWh



Power Module  
50-125kw

## ELECOD Modular Solution



- 1 **DC/AC** Module: with PQ/VF, VSG, CV, MPPT multiple operating modes; Three-level topology, high conversion efficiency; Compatible with 3-phase 3/4-wire outputs.
- 2 **DC/DC** Module: both photovoltaic charging and energy storage charging and discharging functions; Three-level topology, high conversion efficiency; Dual interleaved parallel control reduces ripple current.
- 3 **STS** Module: with voltage, current, amplitude, frequency, and phase synchronization detection, and communication, it can realize seamless switching of microgrid system and off-grid to ensure power supply reliability.

Module 1



DC/AC module

### Energy Storage Converter

Option 1



+ Module 3

### UPS type Inverter

Option 3



Module 1 + 2

### Hybrid Inverter



DC/AC module



DC/DC module

Option 2



STS

+ Battery

### Outdoor Cabinet ESS

Option 5



Module 2

### PV MPPT Charger



DC/DC module

Option 4



### Marketing

ELECOD has customers all over the world. We engage in Asia, Europe, Africa and so on. Customers like our product due to good product design and good service from both of ELECOD and our distributors.

### Product

Engineers from ELECOD are always focusing on the demands of users. Easy to install, easy to use, flexible solution for different applications are our product design targets. Now ELECOD inverters are widely used, and the parallel function of inverters is also in top of the world.

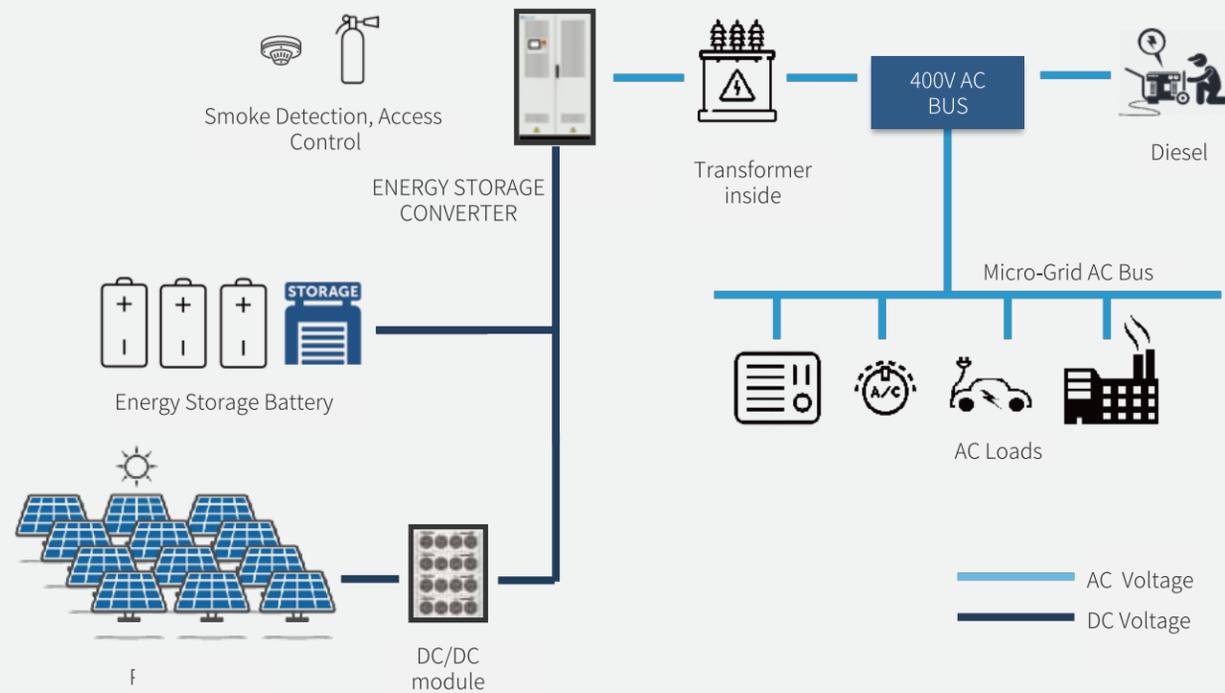
### Service

Committed to providing professional, efficient and high-quality services to ensure that our energy storage products and solutions continuously achieve benefits for customers, providing services covering the whole life cycle of products, and quickly responding to the diversified and personalized needs of customers.



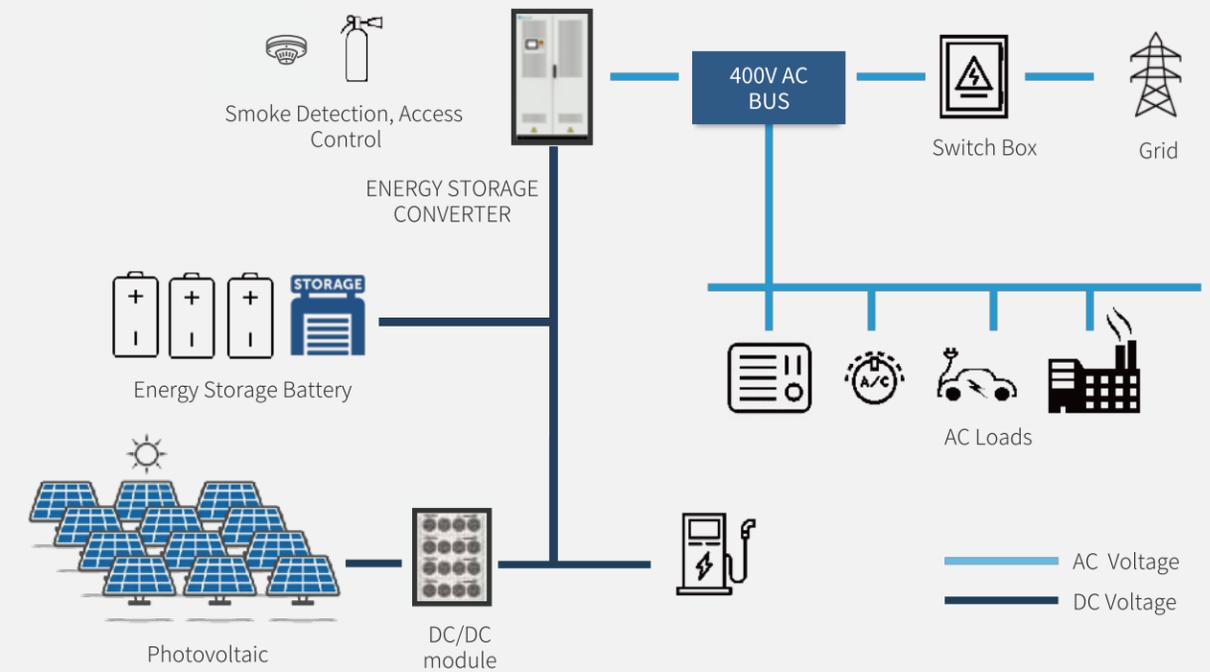
# Scenario

## Multi-energy solution for Microgrids



# Scenario

## Peak shaving solution for C&I



### Microgrid Solutions:

- Our energy storage system provides power balance and control for microgrids in various energy systems, including photovoltaic, wind, diesel engines, and public power grids. It's ideal for remote areas, islands, and mountainous regions, and solar storage and energy charging optimization in technology parks.

### Highlights:

- Built-in power isolation transformer, strong impact resistance and strong stability.
- On-grid, off-grid, VSG multiple operation modes to meet the diversified needs of microgrids.
- Support photovoltaic modules and various types of energy storage battery access, one machine multi-purpose.
- With RS485/CAN 2.0/ Ethernet communication and dry contact control port, remote control can be realized.

### Recommended Products

- DC/AC Energy storage inverter
- DC/DC converters for PV
- STS Static Transfer Switch

### C&I Solutions:

- Industrial and commercial energy storage helps lower electricity costs, enhance power supply reliability, and improve power quality. It efficiently reduces the cost of electricity for high-load users with fluctuations, while ensuring normal operation during power outages.

### Recommended Products

- DC/AC Energy storage inverter
- DC/DC converters for PV
- STS Static Transfer Switch

### Achieve peak shaving:

- Cars can be charged using battery storage during peak hours, while the battery is recharged during off-peak hours, reducing costs for the station. Static Transfer Switch ensures reliable power supply for critical loads with seamless grid switching.

# Monet Power Module

## 50kW/125kW



**DC/AC** module: offers multiple operating modes such as PQ, VF, CV, MPPT; Three-level topology ensures high conversion efficiency and compatibility with 3-phase 3/4-wire outputs.

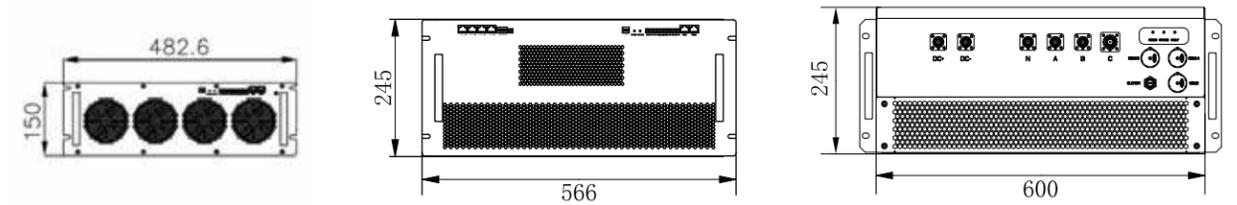
**DC/DC** module: combines solar charging and energy storage functions, with high efficiency and low ripple current thanks to dual interleaved parallel control.

**STS** module: detects and communicates voltage, frequency and phase synchronization, seamless switching for microgrid and off-grid networks, ensuring reliable power supply.

### Product Features:

- Flexible and convenient: standard rack-mounted modular design with flexible configuration, maintenance, and expansion.
- Diversified functions: supports various types of energy storage batteries and photovoltaic modules, auto-identifies devices.
- DC/AC system is adaptive to three-phase three-wire/four-wire and voltage phase sequences, offering more flexible applications.
- DC/DC system offers two inputs for parallel or independent use, and integrated optical storage. The advanced interleaved control technology minimizes ripple current and extends battery life.
- DC/DC and DC/AC adopt three-level circuit design, high conversion efficiency.
- STS module improves reliability by cutting off faulty grids and switching to off-grid power supply during power failures or grid faults.

# ELECOD Power Module



## PERFORMANCE SPECIFICATIONS

DC/AC Module				
Model	Monet-50AC	Monet-125AC	Monet-125AC(IP65)	Monet-125AC(HVB)
Rated power	50kW	125kW	125kW	125kW
Max. power	55kW	137.5kW	137.5kW	137.5kW
DC voltage operating range	600~1000V	580~1000V	580~1000V	580~1000V
DC side full load voltage range	625~950V*	625~950V*	625~950V*	625~950V*
Max. DC current	110A	200A	200A	200A
Rated AC voltage	400Vac,3W+N+PE/3W+PE	400Vac,3W+N+PE/3W+PE	400Vac,3W+N+PE/3W+PE	400Vac,3W+N+PE/3W+PE
Rated AC current	72A	180A	180A	180A
Protection level	IP20	IP20	IP65	IP20
Overload capacity	110% normal operation; 120% 1 minute			
THDi	<3%(rated power)			
PF adjustment range	-1(leading) ~ +1(lagging)			
Unbalanced load capacity	100%,three phase independent control			
Adaptive battery	lithium/lead acid/Solar panel (MPPT)			
Max. conversion efficiency	98.5%	98.2%	98.2%	98.2%
Dimensions(W*D*H)	483 (without bracket 440) *600*150mm	566 (without bracket 520) *680*245mm	660 (without bracket 600) *750*245mm	696(without bracket 650) *680*245mm
Weight (approx)	35kg	68kg	80kg	75kg
DC/DC Module				
Model	Monet-50DC			
Rated power	50kW			
Max. power	55kW			
DC voltage operating range	High voltage side		Low voltage side	
Operating voltage range	250V~950V		200V~900V	
Full load voltage range of high voltage side	500V~950V		345V~900V	
Max. DC current	110A		160A	
Protection level	IP20			
Overload capacity	110% normal operation; 120% 1 minute;			
low-voltage side input quantity	2(2independent, can be connected in parallel)			
Adaptive battery	lithium/lead-acid/solar panel ( MPPT )			
Max. conversion efficiency	98.8%			
Dimensions(W*D*H)	483 (without bracket 440)*600*150mm			
Weight	30kg			
STS Power Module				
Model	Monet-150STS	Monet-300STS	Monet-600STS	
Rated AC power	150kW	300kW	600kW	
Max. AC power	165kVA	330kVA	660kVA	
Rated AC current	216.5A	433A	866A	
Rated AC voltage	400Vac,3W+PE			
Rated frequency	50/60Hz			
Switching time	<10ms			
Dimensions(W*D*H)	483 (without bracket 440) *600*150mm	Size1: 483 (without bracket 440)*600*150mm Size2: 566 (without bracket 440)*600*150mm	566 (without bracket 440) 600*150mm	
Weight	25kg	30kg/32kg	37kg	

\*The Monet-125AC (HVB) version of the module is a PCS with integrated battery high voltage box, perfectly adapted to battery manufacturers such as BMSer and GTMX.

# Monet Power Module

225kW/450kW

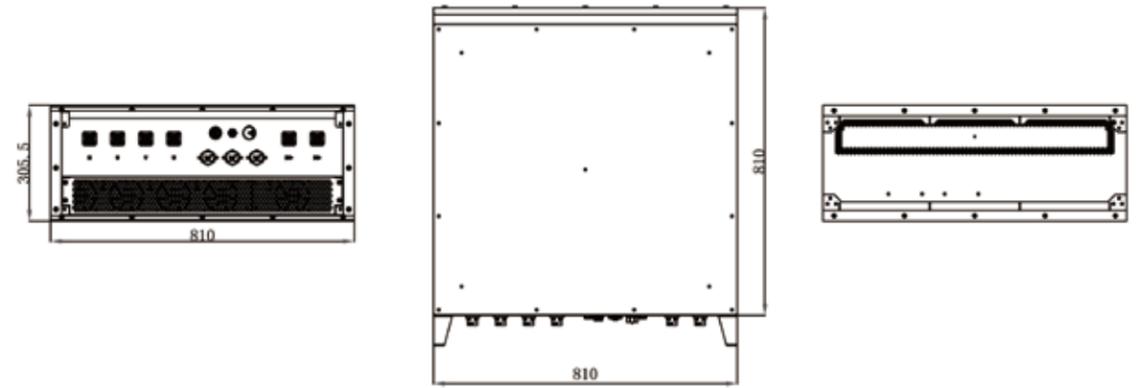


**DC/AC** module: offers multiple operating modes such as PQ, VF,, CV, MPPT; Three-level topology ensures high conversion efficiency and compatibility with 3-phase 3/4-wire outputs. Supporting black start, it can be applied to peak shaving and valley demand regulation, and pure off-grid system of photovoltaic storage.

## Product Features:

- High efficiency and energy saving: Adopting three-level topology, the highest efficiency can reach 98.5%; modular design, easy to install, easy to maintain, high on-line rate of energy storage system. Integrated cluster-level battery management function, high battery availability rate.
- Safe and reliable: High protection level design, adapt to various application environments. Imported IGBT, ensure high performance and stability.
- Flexible Configuration: Integration of high voltage box function and 2 x 225kW-PCS.DC 1500V energy storage system with air/liquid cooled battery solution.
- DC/AC system is adaptive to three-phase three-wire/four-wire and voltage phase sequences, offering more flexible applications.

# ELECOD Power Module



## PERFORMANCE SPECIFICATIONS

DC/AC Module	
Model	Monet-225AC
DC voltage operating range	1000-1500Vdc(3W+PE)/1180-1500Vdc(3W+N+PE)
DC side full load voltage range	1000-1400Vdc(3W+PE)/1180-1400Vdc(3W+N+PE)
Max. DC current	247.5A
Max. AC power	247.5kW
Rated. AC power	225kW
Rated AC current	188.3A
Max. AC current	207.1A
Rated AC voltage	690Vac,(3W+PE/3W+N+PE)
THDi	<3%(rated power)
PF adjustment range	-1(leading) ~ +1(lagging)
Max. efficiency	98.5%
Isolation mode	Non-isolation
Operating temperature	-35~+60°C
Cooling method	Forced air-cooled
Relative humidity	0~100%(No condensation)
Noise	<75dB
Altitude	3000m
Dimensions(W*D*H)	810*810*305.5mm
Weight (approx)	98kg
Protection level	IP66
Communication mode	RS485/CAN/Ethernet

DC/AC Module			
Model	Monet-225AC-L	Monet-450AC-L	
DC voltage operating range	1000-1500Vdc(3W+PE)/1180-1500Vdc(3W+N+PE)		
DC side full load voltage range	1000-1400Vdc(3W+PE)/1180-1400Vdc(3W+N+PE)		
Max. DC current	247.5A	286A	495A
Max. AC power	247.5kW	286kW	495kW
Rated. AC power	225kW	260kW	450kW
Rated AC current	188.3A	188.3A	376.6A
Max. AC current	207.1A	207.1A	414.2A
Rated AC voltage	690Vac,(3W+PE/3W+N+PE)	800Vac,(3W+PE/3W+N+PE)	690Vac,(3W+PE/3W+N+PE)
THDi	<3%(rated power)	<3%(rated power)	<3%(rated power)
PF adjustment range	-1(leading) ~ +1(lagging)	-1(leading) ~ +1(lagging)	-1(leading) ~ +1(lagging)
Max. efficiency	98.5%	97%	98.5%
Isolation mode	Non-isolation		
Operating temperature	-35~+60°C		
Cooling method	Intelligent liquid-cooled		
Relative humidity	0~100%(No condensation)		
Noise	<75dB		
Altitude	3000m		
Dimensions(W*D*H)	810*810*305.5mm	810*810*305.5mm	850*1800*400mm
Weight (approx)	98kg	98kg	220kg
Protection level	IP66	IP66	IP66
Communication mode	RS485/CAN/Ethernet	RS485/CAN/Ethernet	RS485/CAN/Ethernet

# Energy Storage Converter (Models with transformer)

50/100/150/250/500kW

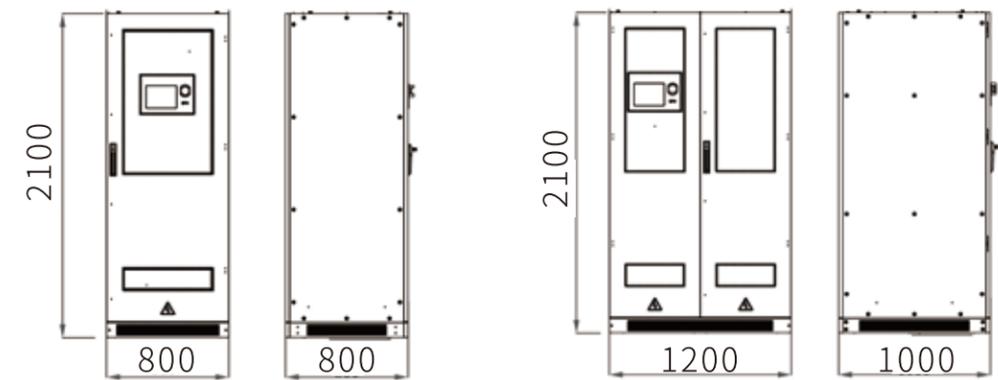


For commercial and industrial energy storage or photovoltaic storage, Elecod modular energy storage converters are provided. This series of products includes energy storage bidirectional converter modules with different electrical specifications and switching modules with seamless switching on and off the grid. Users can flexibly select the corresponding products according to the battery capacity and power demand, adjust the number of modules, and customize the module functions according to the application requirements.

## Product Features:

- Versatile: with PQ, VF, VSG, MPPT, DC voltage source and other operating modes; With one-time frequency modulation/voltage regulation, VSG, black start function; It has the function of parallel and off-grid switching, and supports the function of multi-machine parallel connection.
- Fast response: the charging and discharging conversion time is not more than 40ms, and the response time is less than 30ms, which meets the scheduling needs or frequency modulation project applications.
- Convenient maintenance: modular rack design, energy storage battery can operate independently, convenient maintenance and good scalability.
- Stable and reliable: integrated power frequency isolation transformer, with strong impact resistance and higher safety, is suitable for microgrid systems that need to operate off-grid.
- High efficiency and energy saving: three-level circuit design, high conversion efficiency, improve power utilization.

# ELECOD Energy Storage Converter



## PERFORMANCE SPECIFICATIONS

Model	Monet-50TS	Monet-100TS	Monet-150TS	Monet-250TS	Monet-500TS
Operating voltage range	580~1000V				
Full load voltage range	625~950V*				
Max. DC current	110	110*2	110*3	200*2	200*4
Input quantity	1	1	1	1	1
Adaptive battery	lithium/lead acid/Solar panel (MPPT)				
<b>On - Grid</b>					
Rated AC power	50kW	100kW	150kW	250kW	500kW
Max.AC power	55kVA	110kVA	165kVA	275kVA	550kVA
Rated AC current	72A	144A	216A	361A	720A
Rated AC voltage	400Vac(-15%~+10%),3W+PE/3W+N+PE				
Rated frequency	50/60Hz(±5Hz)				
THDi	<3%(rated power)				
PF adjustable range	-1(leading) ~ +1(lagging)				
<b>Off - Grid</b>					
Rated AC voltage	400Vac, 50/60Hz				
THDv	<3%(Linear load)				
Unbalanced load capability	100%				
Overload Capacity	110%: normal operation, 120%: 1 minute				
Isolation mode	Isolation Transformer (Transformer inside cabinet)				
Dimensions (W*D*H)	Indoor type: 800*800*2100mm Outdoor type: 900*1000*2100mm			Indoor type: 1200*1000*2100mm Outdoor type: 1350*1000*2100mm	
Weight (approx)	680/880kg	850/1050kg	1015/1215kg	1350/1550kg	2250/2450kg
Protection level	Indoor type: IP21; Outdoor type: IP55				
Operating temperature	-25~60°C(derating above 45°C)				
Altitude	3000m(>3000m derating)				
Communication interface	RS485/CAN 2.0/ Ethernet/Dry Contact				
Certificates	EN 61000-6-1 / EN 61000-6-2 / EN 61000-6-3 IEC 61000, IEC 62477-1:2012, IEC 61727, IEC 62116, GB / T 34120, GB / T 34133				

\*The modules within the Monet-(50-150) models consist of 50 modules in parallel, and the modules within the Monet-(250-500) models consist of 125 modules in parallel.

# Energy Storage Converter(Model without transformer)

500/625/1000kW

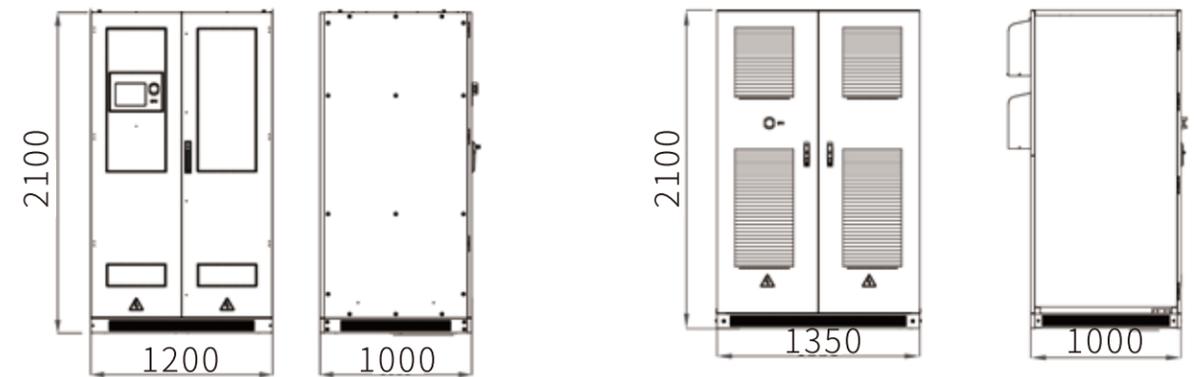


For commercial and industrial energy storage or photovoltaic storage, Elecod modular energy storage converters are provided. This series of products includes energy storage bidirectional converter modules with different electrical specifications. Monet series 125kW string module sub-cluster management program uses a single 125kW module to realize a single branch of the individual control strategy, each DC side of the docking battery, AC side of the unified power distribution and intelligent control.

## Product Features:

- Intelligent cluster management: each DC side module is connected to a cluster of batteries, the AC side is unified power distribution and intelligent control, there is no “barrel effect” between clusters, and the module clusters realize balanced distribution and scheduling of power through intelligent algorithms.
- Stable and reliable: integrated power frequency isolation transformer, with strong impact resistance and higher safety, is suitable for microgrid systems that need to operate off-grid.
- Intelligent management: Equipped with self-developed intelligent management system, it can monitor the operation status of each parallel unit in real time, and realize early warning of failure, remote monitoring and intelligent scheduling, which reduces the difficulty and cost of operation and maintenance.
- Safe and reliable: if a single cluster fails, the rest of the modules can still continue to operate stably, reducing customer losses; no parallel connection on the DC side, adopting the module one cluster one management strategy, no problems such as consistency mismatch of electric cores caused by loop current.

# ELECOD Energy Storage Converter



## PERFORMANCE SPECIFICATIONS

Model	Monet-500	Monet-625	Monet-1000
Operating voltage range		580~1000V	
Full load voltage range		625~950V*	
Max. DC current	800	1000	1600
Input quantity	1	5	1
Adaptive battery	lithium/lead acid/Solar panel (MPPT)		
<b>On - Grid</b>			
Rated AC power	500kW	625kW	1000kW
Max.AC power	550kVA	687.5kVA	1100kVA
Rated AC current	720A	900A	1440A
Rated AC voltage	400Vac(-15%~+10%),3W+PE/3W+N+PE		
Rated frequency	50/60Hz(±5Hz)		
THDi	<3%(rated power)		
PF adjustable range	-1(leading) ~ +1(lagging)		
<b>Off - Grid</b>			
Rated AC voltage	400Vac, 50/60Hz		
THDv	<3%(Linear load)		
Unbalanced load capability	100%		
Overload Capacity	110%: normal operation, 120%: 1 minute		
Isolation mode	Non-Isolation		
Dimensions (W*D*H)	Indoor type: 1200*1000*2100mm Outdoor type: 1350*1000*2100mm		
Weight (approx)	900/1100kg	980/1180kg	1280/1480kg
Protection level	Indoor type: IP21; Outdoor type: IP55		
Operating temperature	-25~60°C(derating above 45°C)		
Altitude	3000m(>3000m derating)		
Communication interface	RS485/CAN 2.0/ Ethernet/Dry Contact		
Certificates	EN 61000-6-1 / EN 61000-6-2 / EN 61000-6-3 IEC 61000, IEC 62477-1:2012, IEC 61727, IEC 62116, GB / T 34120, GB / T 34133		

\*The modules within the Monet-(500-1000) models consist of 125 modules in parallel.

# Photovoltaic inverter (DC/DC)

50kW-500kW

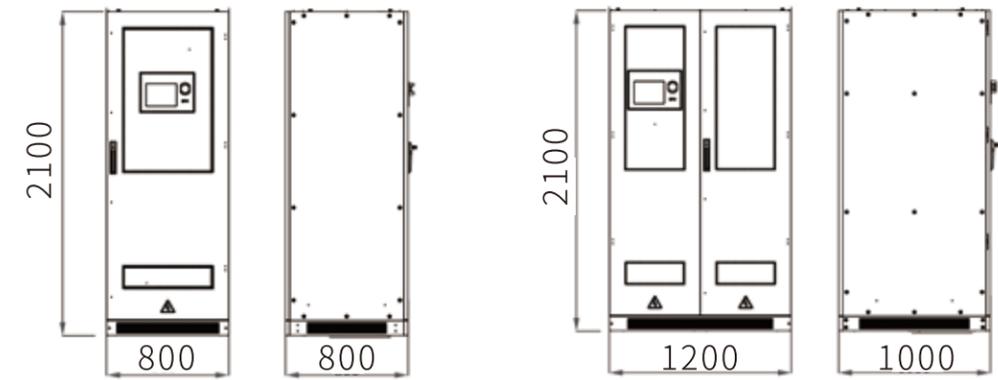


The Monet Series Solar&Energy Storage System integrates modular PCS, local energy management monitoring system, power distribution system, environmental control system, etc. The use of modular PCS facilitates maintenance and expansion; front maintenance can reduce floor space and maintenance access; it is characterized by safety, reliability, rapid deployment, low cost, high energy efficiency, and intelligent management.

## Product Features:

- There are two types of cabinets for indoor and outdoor use, meeting the needs of various installation sites.
- Modular rack design, with flexible configuration, convenient expansion and maintenance.
- Three-level circuit design of the power module, with high conversion efficiency and improved power utilization.
- The local control panel can realize various functions such as converter operation monitoring, energy management strategy development, and remote equipment upgrading.

# ELECOD Photovoltaic inverter (DC/DC)



## PERFORMANCE SPECIFICATIONS

Photovoltaic(PV) port		
Model	Monet-(DC250)	Monet-(DC500)
PV input voltage	312-500V (Minimum battery voltage -30V)	312-500V(Minimum battery voltage -30V)
Max.PV input current	5*160A	10*160A
MPPT quantity	5	10
Battery port		
Battery voltage range	600~950V	
DC side bus power	250kW	500kW
Number of DC side inputs	1	
General Parameters		
Degree of protection	Indoor type: IP21; Outdoor type: IP55	
Protective Class	I	
Shutdown self-discharge	<0.1% Rated power	
Display	LCD	
Relative humidity	0~95%(No condensation)	
Ambient temperature	-25°C to+60°C(Derating above 45°C)	
Cooling mode	Intelligent air-cooled	
Altitude	3000m(>3000m derating)	
BMS Communication	CAN	
EMS Communication	RS485/CAN/Ethernet	
Dimensions (W*D*H)	Indoor type: 800*800*2100mm Outdoor type: 900*1000*2100mm	Indoor type: 1200*1000*2100mm Outdoor type: 1350*1000*2100mm
Weight (approx.)	450/650kg	650/850kg

# Photovoltaic + Storage Hybrid Inverter

50kW/100kW/150kW/250kW

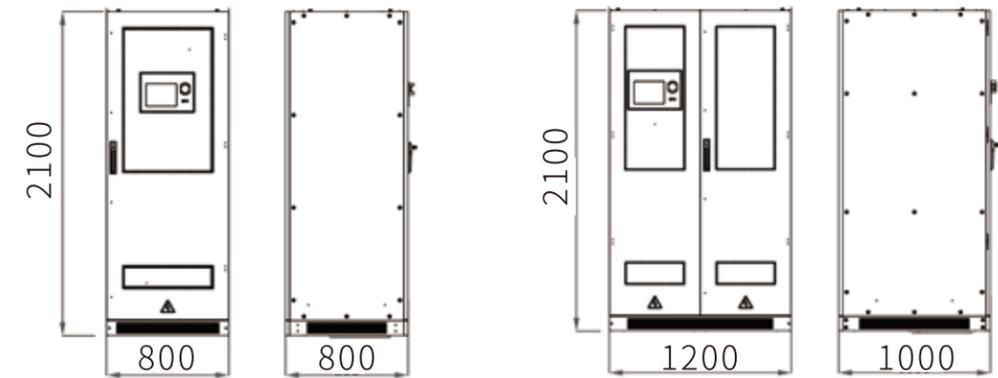


Our microgrid management system utilizes a multi-energy complementary power supply mode with photovoltaic power generation supplemented by diesel engine/grid. It's ideal for areas without stable power supply such as islands and borders, as well as new energy photovoltaic self-consumption scenarios like green buildings and zero-carbon parks in urban areas.

## Product Features:

- DC/DC system with two inputs enables multi-channel MPPT and battery management with advanced interleaved control technology, small ripple current, and extended battery life.
- STS module automatically cuts off faulty loops and switches to off-grid power supply in case of mains power failure. Photovoltaic storage also ensures reliable power supply.
- DC/DC and DC/AC adopt three-level circuit design, high conversion efficiency; It adopts harmonic suppression patented technology to intelligently adapt to diversified scenarios such as industry and commerce, microgrid, and distribution station area.
- The multi-energy complementary power supply of microgrid: power frequency transformer configuration; Uninterrupted power supply for critical loads: configure power frequency transformers.

# ELECOD Hybrid Inverter



## PERFORMANCE SPECIFICATIONS

	Monet-50TS(DC50)	Monet-100TS(DC100)	Monet-150TS(DC150)	Monet-250TS(DC250)
Rated power	50kW	100kW	150kW	250kW
Max. power	55kVA	110kVA	165kVA	275kVA
Rated current	72A	144A	216A	361A
Max. current	79A	158A	238A	397A
Rated voltage	400V (-15%~+10%), 3W+N+PE			
Rated frequency	50/60Hz(±5Hz)			
THDi	<3% (rated power)			
PF	-1 (leading) ~ +1 (lagging)			
<b>Load port</b>				
Rated power	50kW	100kW	150kW	250kW
Rated voltage	400Vac			
THDv	<3% (Linear load)			
Unbalanced load capability	100%			
Overload	110%: normal operation, 120%: 1 minute			
<b>Photovoltaic(PV) port</b>				
Max. PV input voltage	Minimum Battery Voltage-30V			
PV input power	50kW	100kW	150kW	250kW
MPPT quantity	1	2	3	5
MPPT voltage range	200~850V			
<b>Battery port</b>				
Full load voltage range	585~950V			
Battery voltage range	585~950V			
<b>General parameters</b>				
Dimensions (W*D*H)	Indoor: 800*800*2100mm Outdoor: 900*1000*2100mm		Indoor: 1200*1000*2100mm Outdoor: 1350*1000*2100mm	
Weight (approx)	710/910kg	910/1100kg	1100/1300kg	1660/1860kg
Protection level	Indoor type: IP21; Outdoor type: IP55			
Operating temperature	-25~60°C(derating above 45°C)			
Cooling mode	Intelligent air cooling			
Noise level	<75dB			
Altitude	3000m(>3000m derating)			
Communication interface	RS485/CAN 2.0/ Ethernet/dry/ contact			

# Outdoor Cabinet Energy Storage System(Air-cooled)

100kWh/215kWh

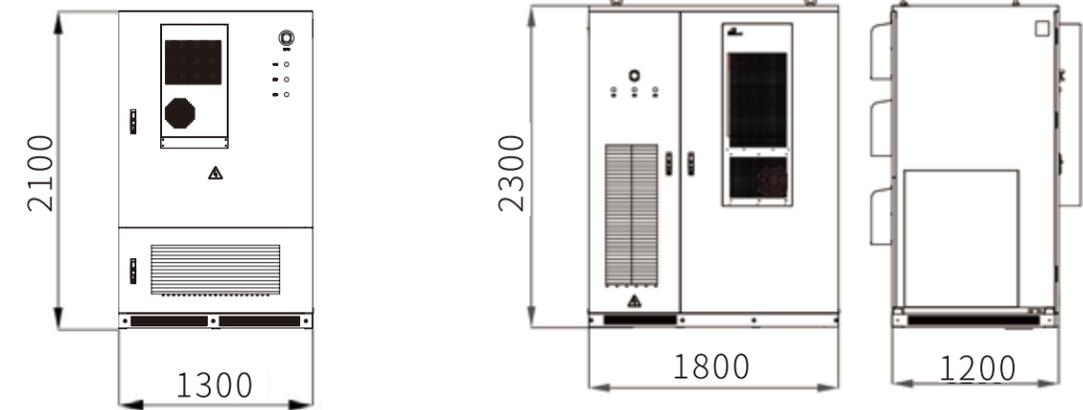


**Integration Product :** power module, battery, refrigeration, fire protection, dynamic environment monitoring and energy management in one. It is suitable for microgrid scenarios such as small-scale commercial and industrial energy storage, photovoltaic diesel storage, and photovoltaic storage and charging. The local control screen can perform a variety of functions, such as monitoring system operation, formulating energy management strategies, and upgrading remote equipment.

## Product Features:

- Highly integrated: The system is productized, integrating liquid-cooled batteries, PCS and power distribution, temperature control and fire protection, flooding door magnets and monitoring and communication, so as to comprehensively control the operating status and risks of the system;
- Intelligent management: Real-time liquid leakage monitoring, reducing on-site operation and maintenance work; Supporting local control or cloud platform management system, intelligent equalization strategy, real-time system warning, to ensure the consistency of the whole life cycle of the battery;
- Flexible expansion: With virtual synchronous machine features function patented technology, can realize multiple no communication line long-distance free parallel, and off-grid switching function;
- High efficiency and safety: Intelligent liquid cooling temperature control system, reducing the temperature difference between the cells inside the PACK, ensuring the consistency of battery temperature control, improving battery life and reducing energy consumption.

# ELECOD Outdoor Cabinet ESS(Air-cooled)



## PERFORMANCE SPECIFICATIONS

Model	Monet-50C		Monet-100C	
	Monet-50(100kWh)	Monet-50TS(DC50)(100kWh)	Monet-100(215kWh)	Monet-100TS(DC100)(215kWh)
Max. PV input power	/	50kW*	/	100kW*
Max. PV input voltage	/	680V	/	620V
STS	/	STS optional	/	STS optional
Transformer	/	Transformer inside	/	Transformer inside
<b>Battery(DC)</b>				
Rated battery capacity	100kWh	100kWh	215kWh	215kWh
Rated system voltage	844.8V	844.8V	768V	768V
Battery type	LFP battery			
Battery Cell capacity	120Ah	120Ah	280Ah	280Ah
Series of battery	1P*24S*11S	1P*24S*11S	1P*20S*12S	1P*20S*12S
<b>AC</b>				
Rated AC power	50kW	50kW	100kW	100kW
Rated AC current	72A	72A	144A	144A
Rated AC voltage	400V,3P+PE,50/60Hz	400V,3P+N+PE,50/60Hz	400V,3P+PE,50/60Hz	400V,3P+N+PE,50/60Hz
THDi	<3%(rated power)			
PF	-1(leading)~ +1(lagging)			
<b>General Parameters</b>				
Protection level	IP55			
Isolation mode	Non-Isolation	Isolation Transformer	Non-Isolation	Isolation Transformer
Operating temperature	-25~60°C(Derating above 45°C)			
Altitude	3000m(>2000m derating)			
Communication interface	RS485/CAN 2.0/ Ethernet/dry contact			
Dimension(W*D*H)	1300*1000*2100mm	1300*1000*2100mm	1800*1200*2300mm	1800*1200*2300mm
Weight (approx)	1750kg	2100kg	2400kg	3300kg

**Note:** Above models are typical configurations. PV charging (DC/DC) module, on/off-grid switching module, industrial isolation transformer and other components can also be selected for micro-grid scenarios, to form Solar ESS integrated system cabinet.

# Outdoor Cabinet Energy Storage System(Liquid-cooled)

232kWh/261kWh

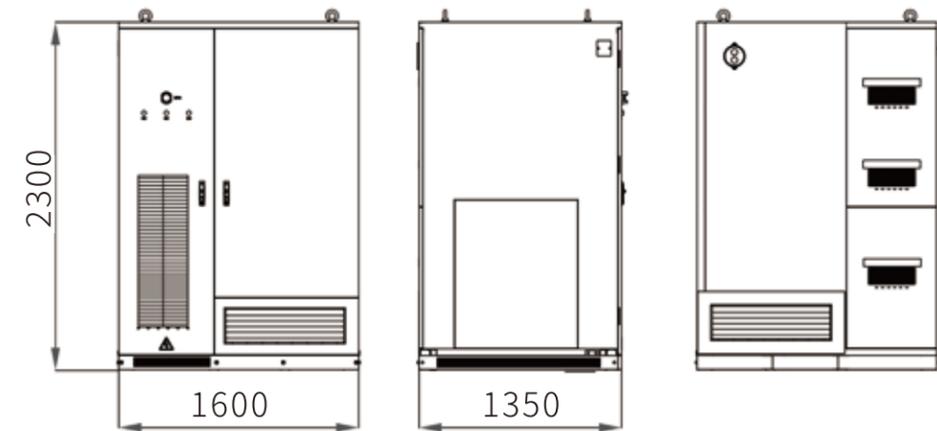


**Integration Product:** power module, battery, refrigeration, fire protection, dynamic environment monitoring and energy management in one. It is suitable for microgrid scenarios such as small-scale commercial and industrial energy storage, photovoltaic diesel storage, and photovoltaic storage and charging. The local control screen can perform a variety of functions, such as monitoring system operation, formulating energy management strategies, and upgrading remote equipment.

## Product Features:

- Highly integrated: The system is productized, integrating liquid-cooled batteries, PCS and power distribution, temperature control and fire protection, flooding door magnets and monitoring and communication, so as to comprehensively control the operating status and risks of the system;
- Intelligent management: Real-time liquid leakage monitoring, reducing on-site operation and maintenance work; Supporting local control or cloud platform management system, intelligent equalization strategy, real-time system warning, to ensure the consistency of the whole life cycle of the battery;
- Flexible expansion: With virtual synchronous machine features function patented technology, can realize multiple no communication line long-distance free parallel, and off-grid switching function;
- High efficiency and safety: Intelligent liquid cooling temperature control system, reducing the temperature difference between the cells inside the PACK, ensuring the consistency of battery temperature control, improving battery life and reducing energy consumption.

# ELECOD Outdoor Cabinet ESS(Liquid-cooled)



## PERFORMANCE SPECIFICATIONS

Model	Monet-100CL		Monet-125CL	
	Monet-100(232kWh)	Monet-100TS(DC100)(232kWh)	Monet-125(261kWh)	Monet-125TS(DC100)(261kWh)
Max. PV input power	/	100kW*	/	125kW*
Max. PV input voltage	/	680V	/	680V
STS	/	STS optional	/	STS optional
Transformer	/	Transformer inside	/	Transformer inside
<b>Battery(DC)</b>				
Rated battery capacity	232kWh	232kWh	261kWh	261kWh
Rated system voltage	832V	832V	832V	832V
Battery type	LFP battery			
Battery Cell capacity	280Ah	280Ah	314Ah	314Ah
Series of battery	1P*52S*5S	1P*52S*5S	1P*52S*5S	1P*52S*5S
<b>AC</b>				
Rated AC power	100kW	100kW	125kW	125kW
Rated AC current	144A	144A	180A	180A
Rated AC voltage	400V,3P+PE,50/60Hz	400V,3P+N+PE,50/60Hz	400V,3P+PE,50/60Hz	400V,3P+N+PE,50/60Hz
THDi	<3%(rated power)			
PF	-1(leading)~ +1(lagging)			
<b>General Parameters</b>				
Protection level	IP55			
Isolation mode	Non-Isolation	Isolation Transformer	Non-Isolation	Isolation Transformer
Operating temperature	-25~60°C(Derating above 45°C)			
Altitude	3000m(>2000m derating)			
Communication interface	RS485/CAN 2.0/ Ethernet/dry contact			
Dimension(W*D*H)	1600*1350*2300mm	1600*1350*2300mm	1600*1350*2300mm	1600*1350*2300mm
Weight (approx)	2700kg	3300kg	2700kg	3300kg

**Note:** Above models are typical configurations. PV charging (DC/DC) module, on/off-grid switching module, industrial isolation transformer and other components can also be selected for micro-grid scenarios, to form Solar ESS integrated system cabinet.

# Outdoor Cabinet ESS for PV Storage & Charging

100kW/215kWh

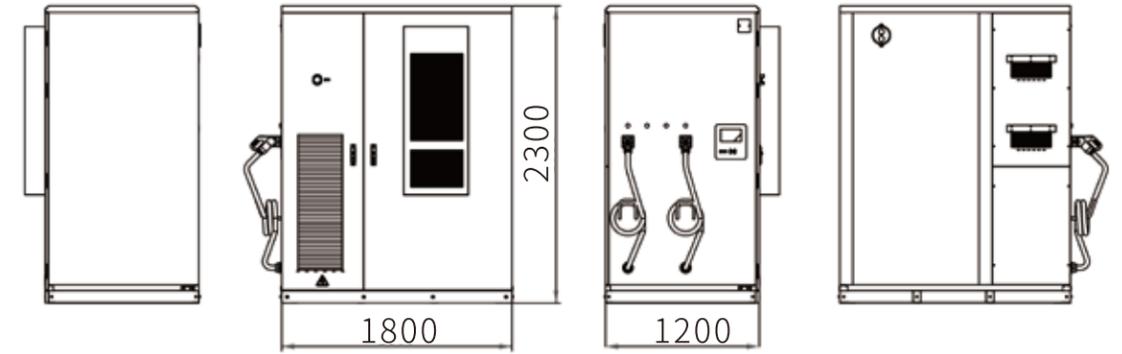


Outdoor Cabinet ESS for PV Storage & Charging: This system is productized, integrating energy storage batteries, PCS and power distribution, photovoltaic modules, charging modules, etc. Its working principle is based on the "PV + energy storage + charging" solution. It can be applied in various scenarios such as EV charging stations, industrial parks, commercial buildings, residential communities, remote areas, and microgrids. It realizes efficient utilization of renewable energy and reduces energy costs.

## Product Features:

- Standardized structure design: menu-type function configuration, photovoltaic charging module, a parallel off-grid switching module, power frequency transformer, and other components can be selected for microgrid and other scenarios, and integrated photovoltaic storage integration system cabinet;
- Flexible Configuration: With built-in photovoltaic, energy storage, charging, and other power modules, it offers flexible combinations, easy expansion, and satisfies various application scenarios;
- Intelligent Management: Realise remote monitoring and management, real-time fault warning, support cloud scheduling and operation report analysis, real-time station monitoring and historical data query, which can be used for revenue settlement;
- Space-saving: using door-mounted embedded integrated air conditioners can save space in the cabinet by not occupying any space, improving the available space, enhancing the top structural integrity, and achieving a good waterproof effect.

## ELECOD Outdoor Cabinet ESS



## PERFORMANCE SPECIFICATIONS

Grid Port	
Model	Monet-100(DC100)(215kWh)(EV120)
Rated power	100kW
Maximum power	110kW
Rated current	144A
Maximum current	158A
Rated voltage	400Vac(-15%~+10%), 3W+N+PE
Rated frequency	50/60Hz(±5Hz)
Photovoltaic Port	
Maximum photovoltaic input voltage	minimum battery voltage -30V
Photovoltaic input power	100kW
MPPT channels	1/2/4
Battery Port	
The rated capacity of the battery is	215kWh
Battery voltage range	768V
Rated voltage	672V-864V
Battery Type	Lithium Iron Phosphate Battery (LFP)
Cell capacity	280Ah
Battery pack series parallel connection method	1P*20S*12S
Maximum charge and discharge current	140A
Charging Port	
Rated output power	60kW*2
Rated output current	120A*2(500Vdc)
Measurement accuracy	<±0.1%
Number of charging guns	2
Gun line length	5m
Start method	Scan code, swipe card, APP
Charging method	automatic full charge, by amount, by battery level, by time
Display mode	LED display light
General Parameters	
Cooling method	Intelligent air-cooling
Protection level	IP55
Shutdown self power consumption	<0.1% rated power
Relative humidity	0-95% (no condensation)
noise	<70dB
Environmental temperature	-25 °C~60 °C (derating above 45 °C)
Altitude	3000m(>2000m derating)
BMS Communication	CAN
EMS communication	Ethernet/485
Emergency stop protection	Equipped with an emergency stop button and emergency stop protection function
Protection features	Input overvoltage protection, input overcurrent protection, surge protection, output short circuit protection, over temperature protection, Protection functions such as anti backflow protection, active battery protection, emergency stop, etc
Dimensions (W * D * H)	1800*1200*2300mm
Weight (approximately)	2500kg

# Battery Cabinet

215kWh/261kWh

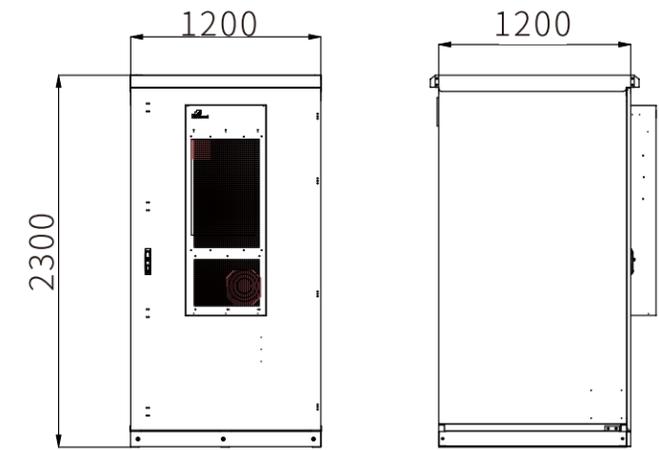


The battery cabinet is the electrical energy storage part of the energy storage system combined with the PCS cabinet to form an industrial and commercial energy storage system. The product integrates several battery modules, an air-conditioning system and a fire control system inside. These battery modules achieve high energy density storage through advanced battery technology, while the control system is responsible for monitoring the battery status and controlling the charging and discharging process to ensure safe and stable operation of the equipment.

## Product Features:

- High energy density: the use of high-energy lithium iron phosphate batteries, making the entire battery cabinet has a high energy storage capacity.
- High safety performance: The battery module has a built-in BMS (Battery Management System), which is capable of real-time monitoring of the voltage, temperature and other parameters of a single cell, and cell equalization management to ensure safe and efficient operation of the battery.
- Intelligent monitoring: Equipped with an intelligent monitoring system, it can monitor the operation status of the energy storage cabinet and battery health in real time, and support remote control and intelligent management.
- Strong environmental adaptability: with shock-proof, dustproof, waterproof and other functions, it can operate stably in a variety of harsh environments.

# ELECOD Container ESS



## PERFORMANCE SPECIFICATIONS

Model	Monet-(215kWh)	Monet-(261kWh)
Battery rated capacity	215kWh	261kWh
Battery rated voltage	768V	832V
Battery voltage range	672V~864V	728V~936V
Battery type	Lithium iron phosphate battery (LFP)	Lithium iron phosphate battery (LFP)
Battery cell capacity	280Ah	314Ah
Series of Battery	1P*20S*12S	1P*52S*5S
Rated charging rate	0.5P	0.5P
Degree of protection	IP55	IP55
Operating Temperature, Charging	0~55°C	25~55°C
Operating Temperature, Discharging	-30~55°C	-25~55°C
Cooling mode	Intelligent air-cooled	Intelligent liquid-cooled
Altitude	3000m(>2000m derating)	3000m(>2000m derating)
Dimensions (W*D*H)	1200*1200*2300mm	1375*1375*2300mm
Weight (approx.)	1800kg	2200kg

# Grid & DG Switching Cabinet

150kW/250kW/500kW/1000kW/2000kW

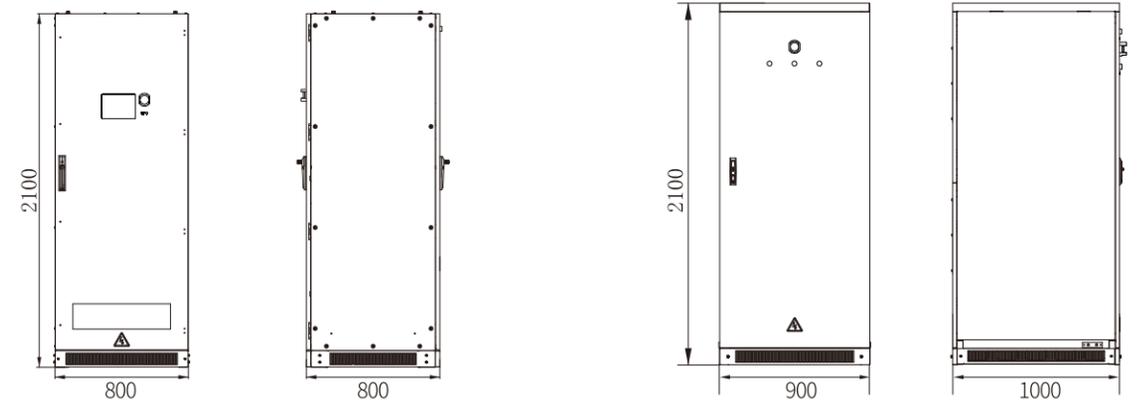


**Grid & DG machine switching cabinet** When the utility power is abnormal, the switching cabinet can quickly detect and automatically switch the load from the utility power to the backup oil machine power supply to ensure the continuity of power supply. Once the utility power is restored to normal and stabilized, the switching cabinet can automatically switch the load from the oil machine power supply back to the utility power supply, and at the same time issue a shutdown command to the oil machine.

## Product Features:

- Intelligent Detection and Alarm: ATS is able to monitor the status of utility power and backup power in real time, including voltage, frequency and other parameters. Once abnormal conditions are detected, such as utility power failure or backup power failure, it will immediately switch to the other way of power supply.
- High reliability and safety: to prevent safety problems such as power conflict or short circuit during the switching process, it is equipped with internal electrical interlocking and mechanical interlocking devices to ensure the safety and reliability of the switching process.
- Flexibility and configurability: wide range of capacity, flexible configuration according to the capacity of the load to meet the needs of different sizes of energy storage systems.
- Environmental adaptability and rapid deployment: meets indoor and outdoor installation, able to work stably under various environmental conditions.

# ELECOD Container ESS



## PERFORMANCE SPECIFICATIONS

Model	Cabinet-150ATS	Cabinet-250ATS	Cabinet-500ATS	Cabinet-1000ATS	Cabinet-2000ATS
Rated power	150kW	250kW	500kW	1000kW	2000kW
Rated voltage	216A	360A	721A	1443A	2886A
Rated AC current	400V				
Rated AC frequency	50/60Hz(±5Hz)				
Switching mode	Manual Switching, Automatic Transfer				
Input	Two Circuits: One Mains Power, One Diesel Generator				
Output	One Circuit				
Conducting mode	Grid priority				
Protection features	With open-phase protection, under-voltage, and voltage loss protection functions				
Degree of protection	Indoor type: IP21; Outdoor type: IP55				
Relative humidity	0 ~ 95% (No Condensation)				
Ambient temperature	-25°C to +60°C(Derating above 45°C)				
Altitude	3000m (>3000m derating)				
Communication interface	Dry Contact				
Dimensions (W * D * H)	Indoor type: 800*800*2100mm; Outdoor type: 900*1000*2100mm				
Weight (Approx.)	600/800kg				

# Container Energy Storage System

1000kWh/2000kWh

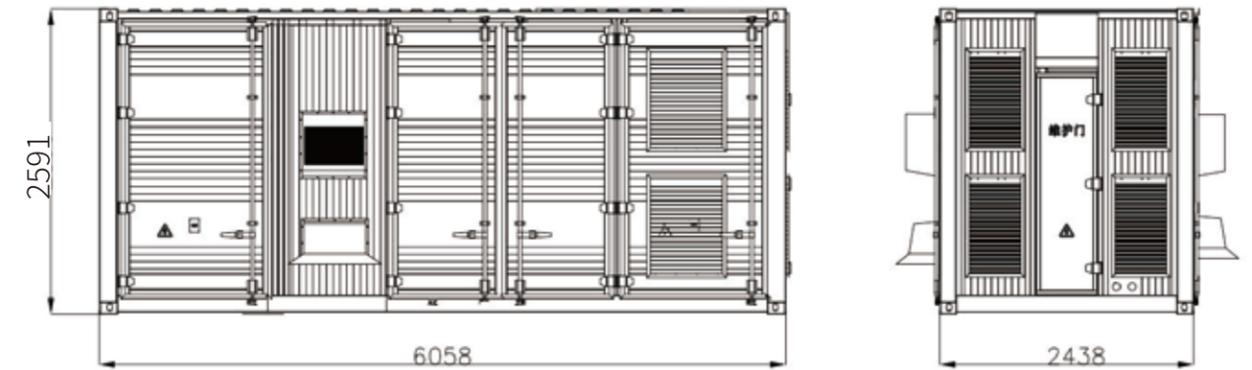


The system integrates energy storage inverter, battery, fire protection, refrigeration, isolation transformer, dynamic environment monitoring and energy management, friendly grid adaptability, accepts grid dispatching, carries out active and reactive power compensation, supports peak shaving and valley filling, demand-side response, assists new energy grid integration and other applications. The IP55 protection level fits in harsh outdoor environments, ideal for commercial and industrial energy storage needs.

## Product Features:

- High integration: system productization, integration of Battery, fire protection, PCS, temperature control, and monitoring communication, fully control the system operation status and risks; One-stop delivery, shorten the installation and commissioning cycle.
- Versatile: support peak shaving and valley filling, demand-side response, backup power supply and other main functions; Support remote update of operating strategy and firmware upgrade, lower operating and maintenance costs.
- Safety intelligence: fault classification processing mechanism to respond to preset fault scenarios; Customized BMS to provide perfect measurement and protection functions; Support cloud scheduling and operation report analysis.
- Flexible and convenient: modular PCS, linear expansion battery unit and energy storage bidirectional inverter unit; It has the ability to independently charge and discharge control of multiple groups of batteries to improve battery utilization and safety.

## ELECOD Container ESS



## PERFORMANCE SPECIFICATIONS

Model	Alice-20C(1075kWh) 500TS(DC500)	Alice-20CL(1160kWh) 500TS(DC500)	Alice-40C(2150kWh) 1000TA(DC1000)	Alice-40CL(2320kWh) 1000TA(DC1000)
Rated/Max. AC power	500/550kW	500/550kW	1000/1100kW	1000/1100kW
Rated AC voltage	400Vac, 3W+PE/3W+N+PE			
Rated AC current	720A	720A	1440A	1440A
THDi	<3%( linear load)			
PF adjustable range	-1(leading) ~ +1(lagging)			
Battery rated capacity	215kWh*5	232kWh*5	215kWh*10	232kWh*10
Battery voltage range	672~864V	728~936V	672~864V	728~936V
Series of battery	5P*20S*12S	5P*52S*5S	10P*20S*12S	10P*52S*5S
Adaptable battery type	LFP			
Cell rated voltage/capacity	3.2V/280Ah			
PCS type	Modular, high efficiency three level			
Protection	Over temperature, low temperature charging, over current, short circuit, over voltage, under voltage, DC bus protection, etc.			
On-grid and off-grid switching	STS seamless switching (optional)		ATS switching (optional)	
Isolation transformer	Equipped (optional)			
Working mode	Grid-tied peak shaving/off-grid power supply			
PV side parameters				
Max. PV input voltage	The minimum battery voltage - 30V			
PV input power	500kW	500kW	500kW*2	500kW*2
MPPT quantity	1/5/10			
General Parameters				
Dimensions (W*D*H)	6058*2438*2591mm	6058*2438*2591mm	12192*2438*2591mm	12192*2438*2591mm
Weight (approx.)	18 tons	16.5 tons	33 tons	35 tons
Protection level	IP54			
Ambient temperature	-25°C~60°C(Derating above 45°C)			
Relative humidity	0~95%(No condensation)			
Altitude	3000m(>2000m derating)			
Fire extinguisher system	Perfluorohexanone/Heptafluoropropane piped fire extinguishing system			
Battery Silo Cooling Method	Air-cooling	Liquid-cooling	Air-cooling	Liquid-cooling
Electrical Silo Cooling Method	Intelligent air-cooled			
Communication interface/protocol	RS485,Ethernet/Modbus RTU , Modbus TCP			
Certificate	IEC 62619,UN38.3,UL1973,CE			

# Monitoring System(software)

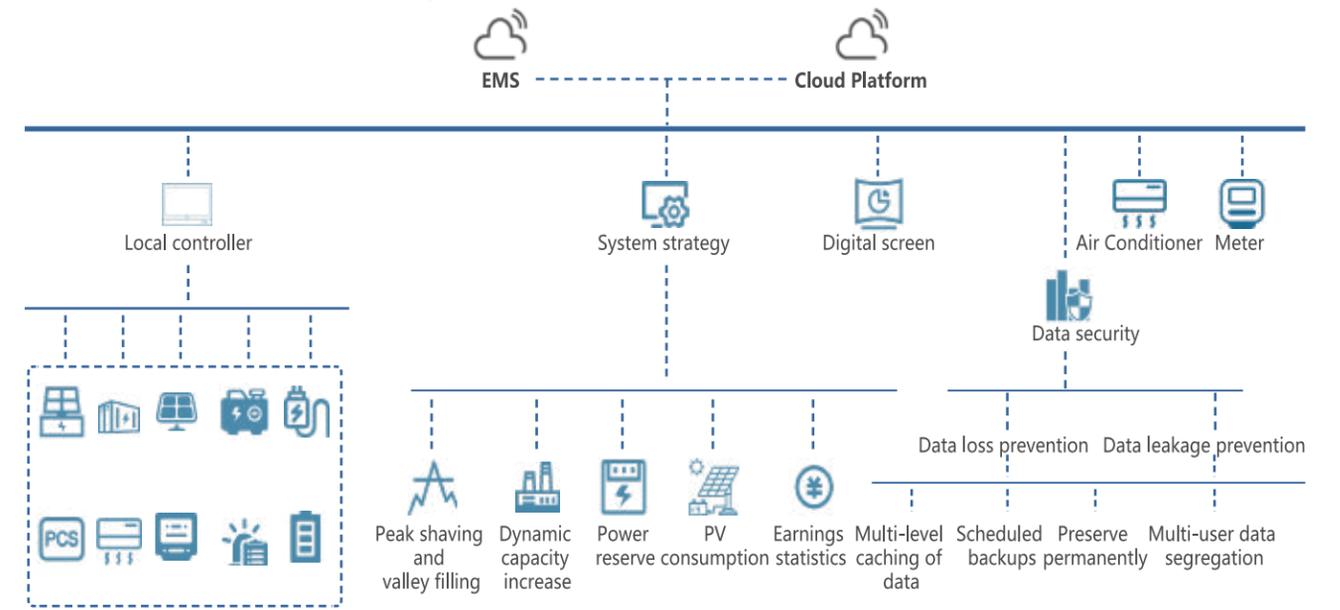


Monitoring system software is a comprehensive monitoring system that integrates local control panel, cloud platform and station-level EMS (Energy Management System). The system is designed to provide users with efficient, safe and reliable power monitoring and management solutions for various application scenarios such as industrial and commercial energy storage, photovoltaic storage and charging integration, and power battery ladder utilization energy storage.

## Product Features:

- Real-time monitoring: collects and displays equipment operation status, key data and alarm information, ensuring that users can grasp the equipment status at any time.
- Alarm maintenance: local sound and light alarm prompts, support failure prediction, alarm push and maintenance management, improve system operation efficiency and reliability.
- Remote management: support the switching operation, mode switching and parameter setting of the equipment, realize remote control and parameter configuration of the equipment through the network to improve management efficiency.
- Energy efficiency optimization: trend analysis and energy efficiency assessment based on cloud data, dynamically adjusting the equipment operation mode according to the set strategy and real-time load conditions to achieve energy optimization.

# ELECOD Monitoring System(software)



## PERFORMANCE SPECIFICATIONS

	Elecod-Lotus	Elecod-Cloud	Elecod-EMS
Accessible equipment	Battery, Air conditioner, PV inverter, etc.	Converters, transformers, air conditioners, etc.	PV equipment, ESS, monitoring equipment, etc.
Other accesses can be customised	PV, Energy storage systems, Meters, etc.	System cabinets, DG, charging posts, meters, etc.	Supports customized such as Modbus, CAN, MQTT, etc.
Acquisition Environment			
Acquisition Interval	1 second	5 minutes	1 second ~ 60 minutes, configurable
Acquisition method	RS485, CAN, Ethernet	2G, 3G, 4G, WIFI	RS485, CAN, Ethernet
Client Environment			
Minimum Browser Version	/	Not supported on IE8 and below	Not supported on IE8 and below
Recommended Browsers	/	Chrome(V23 - V113), Edge(V12 - V110), Firefox(V21 - V112)	/
Multilingualism	Support Chinese and English (others can be customized)	Support Chinese and English (others can be customized)	Support Chinese and English (others can be customized)
Display	LCD	Large screen, computer, tablet	Large screen, computer, tablet
Display Function			
Data monitoring	Real-time power curve	Energy storage data display, historical curve	Energy storage data display, historical curve
Alarm centre	Real-time alarm, historical alarm	Real-time alarms, alarm statistics	Real-time alarms, historical alarms
Operational evaluation	/	Revenue measurement, charging and discharging capacity, energy efficiency level, operation status	/
Remote control of equipment	Remote control of equipment Support remote start/stop, parameter adjustment and firmware upgrade.	Equipment upgrade, parameter downgrade	Support remote start/stop, parameter adjustment and firmware upgrade.
Rights management	Individual authorization for equipment, data viewing, and control operations is available.	Supports the establishment of users with different permissions such as system management	Hierarchical management of roles such as administrator, operator and end user.
Number of devices managed	/	100 equipment	/

# CERTIFICATES & AWARDS



## (1) ISO 9001/14001/45001



## (2) TUV & CE SERIES



E L E C O D

E L E C O D

### (3) EUROPEAN UNION INTELLECTUAL PROPERTY



### (4) AWARDS

- 🏆 Innovative Products of 2023
- 🏆 Outstanding Energy Storage Key Equipment Supplier of 2023
- 🏆 Top Ten Manufacturers in PCS Shipments of 2024
- 🏆 Most Influential Chinese PCS Supplier of 2024

### OUR FOOTPRINTS



ELECOD remains committed to forging enduring energy solutions, asserting a robust foothold in the realm of energy storage. Our array of energy storage offerings tackles intricacies related to energy provisioning and governance, facilitating the broader integration of sustainable energy sources. We achieve this through the incorporation of cutting-edge methodologies and resilient design paradigms.

ELECOD's energy storage solutions have gained prominence across Europe, Asia, and Africa, assuming a pivotal function in fostering the proliferation of renewable energy sources and facilitating the energy shift. Our unwavering dedication to sustainable progress, diminishing dependence on conventional fuels, and propelling technological breakthroughs in energy storage remains resolute. Our unwavering focus on research and development empowers us to deliver effective, dependable, and ecologically sound energy storage resolutions, thereby catalyzing the widespread embrace of eco-friendly energy sources for a viable future.



# Project Cases

## Industrial and commercial energy storage



- Location: Huzhou, Zhejiang, China
- Energy Storage Capacity: 500 kW/1000 kWh (including 5 sets of 100 kW/200 kWh cabinet energy storage systems).
- Application Scene: An industrial manufacturing enterprise - peak shaving and filling, uninterrupted power supply.
- Revenue Review: After completion of the project, the enterprise's annual power consumption is over 600,000 kWh. Peak and valley arbitrage produces annual income of about 82,000 USD, and basic demand electricity charges have decreased by more than 28,000 USD.

## The Combination of PV, Battery and DC System



- Location: Hainan Boao Forum for Asia, News Center
- Time of installation: Mar. 2023.
- Energy Storage Capacity: 550 kW from Photovoltaics, 250 kW+250 kW from Flexible and Direct Current, and a 500 kW Load.
- Application Scene: "Photovoltaic Energy Storage System" at the Boao Forum for Asia News Center. Revenue Review: Through comprehensive renovation, the construction of the News Center has formed the highest level of "Photovoltaic Energy Storage System" in the country. Annual power consumption has reduced from 650,000 kWh to 520,000 kWh, while also generating 550,000 kWh of electricity per year. Demonstrating a 30% increase in capacity, it also reduces distribution upgrades in the demonstration area. Equipped with vanadium flow long-life energy storage batteries, which increase charging and discharging cycles, nearly four times higher than traditional lithium batteries, achieving self-use and feeding excess electricity into the grid.

## Industrial and commercial energy storage



- Location: Hainan
- Energy Storage Capacity: 60KW, 0 - 120V.
- Zero voltage start function.

## PV, diesel energy storage system



- Location: Chengdu, Sichuan
- Energy Storage Capacity: 100 kW/215 kWh.
- Application Scene: Joint power supply from photovoltaic energy storage, diesel backup power supply.



### ▼ PV, diesel energy storage system



- Location: **Location:Sichuan Bazhong,China**
- Energy Storage Capacity: **100 kW/200 kWh (including 2 sets of 50 kW/100 kWh outdoor cabinet-style photovoltaic energy storage systems).**
- Application Scene: Scene: Self-sufficiency, photovoltaic consumption, supplying power to public areas such as charging stations and hotels.
- Revenue Review: Revenue Forecast: After the project is put into operation, the total installed capacity of roof photovoltaics on public buildings in the small town is 56 kW, with an expected annual power generation of 49,000 kWh. The annual electricity bill is expected to save **4,900 USD** and reduce carbon emissions by about 31.4 tons/year, significantly reducing the electricity costs of hotels and public areas.'
- Application Scene: Diesel engine combined operation, diesel engine power supply during the day, off-grid operation at night.



### ▼ The Combination of PV, Battery and DC System



- Location: **Chengdu, Sichuan (indoor)**
- Energy Storage Capacity: **100 kW from Photovoltaics + 100 kW in Energy Storage +Seamless Switching.**
- Application Scene: Self-sufficiency from photovoltaics, joint power supply from photovoltaic energy storage, and emergency backup power supply.

### ▼ Industrial and commercial energy storage



- Location: **Suzhou, Jiangsu**
- Energy Storage Capacity: **100 kW/200 kWh.**
- Application Scene: A certain commercial building - Peak shaving and filling, emergency backup power supply.

### ▼ Mutual scheduling the VSC-HVDC



- Location: **Hebei**
- Energy Storage Capacity: **100 kW/215 kWh.**
- Application Scene: A certain industrial park - photovoltaic consumption, soft direct current power exchange between substations.



### ▼ PV, diesel energy storage system



- Location: **Johannesburg, South Africa**
- Energy Storage Capacity: **100 kW/215 kWh.**
- Application Scene: Joint power supply from photovoltaic energy storage, diesel backup power supply.

### ▼ "PCS+Multiple Battery Cabinets" Energy Storage Project



- Location: **Zhejiang · Taizhou**
- Energy Storage Capacity: **200kW/645kWh**
- Application Scene: Through the combination of PCS and multiple battery cabinets, the PCS is responsible for converting AC power from the grid to DC power to charge the batteries, or converting the DC power from the batteries to AC power to feed back into the grid or supply to the loads.

### ▼ PV, diesel energy storage system



- Location: **Johannesburg, South Africa**
- Energy Storage Capacity: **100 kW/215 kWh.**
- Application Scene: Joint power supply from photovoltaic energy storage, diesel backup power supply.

### ▼ "PCS+Five Battery Cabinets" Cluster Management Project



- Location: **Jiangsu · Suzhou**
- Energy Storage Capacity: **500kW+215kWh\*5**
- Application Scene: The project uses a split-cluster management strategy to efficiently organize 10 PCSs of 50kW modules to connect and manage five 215 battery cabinets. Every two 50kW modules are connected to a cluster of battery banks to achieve fine-grained energy distribution and management, optimizing the overall system's operational efficiency and stability."



### ▼ "Cluster Management" Container Project

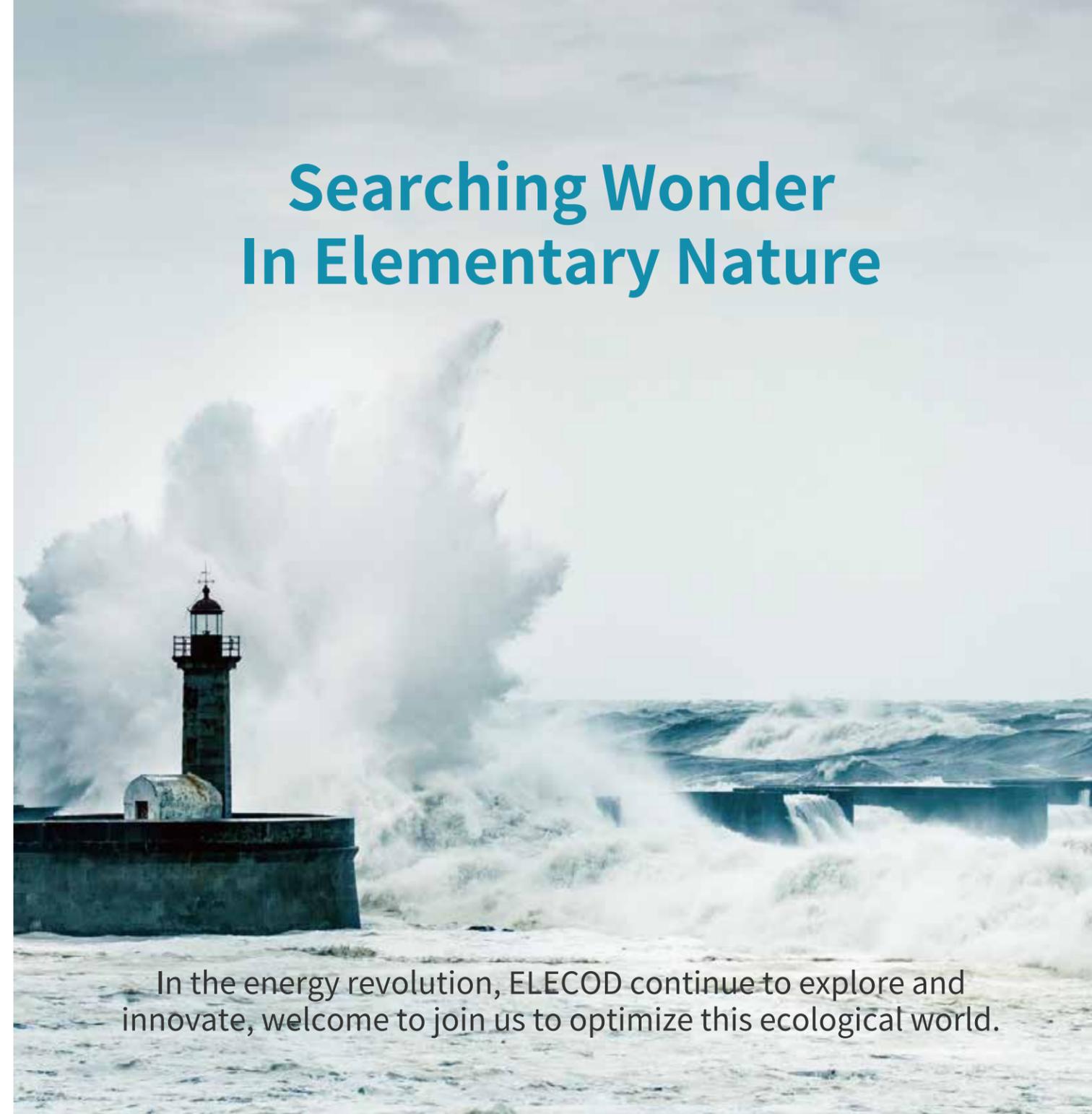


- Location: **Hainan · Sanya**
- Energy Storage Capacity: **0.5MW/1.5MWh**
- Application Scene: PCS system is composed of 150kW+150kW+200kW, with 32 clusters of independent control on the DC side to avoid loop current, and unified control on the AC side for flexible on-grid/off-grid connection, each cluster of batteries is independently controlled to ensure that a single cluster failure does not affect the overall system operation. Due to the big difference between the battery packs, it is impossible to connect them in parallel or in series directly, so cluster management is the best solution.

### ▼ PetroChina Integrated Energy Storage System Project



- Location: **Jilin · Songyuan**
- Energy Storage Capacity: **100kW/100kWh+PV50kW**
- Application Scene: Adopting 100kWPCS with 100kWh lithium titanate battery storage system and 50kW photovoltaic DC access, the system is tailor-made for the oilfield to integrate the light storage and peak shaving and valley filling program. The system is perfectly compatible with the highly efficient and environmentally friendly lithium titanate battery.



# Searching Wonder In Elementary Nature

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