

Megatank

Intelligent Energy Storage System Supplier

Power your quality life

Megatank Solar Energy Limited

www.gt-ess.com / sales@gt-ess.com

A photograph of a modern glass skyscraper under a blue sky with light clouds. The building's facade is composed of a grid of blue-tinted glass panels. The word "Megatank" is prominently displayed on the upper left side of the building in large, white, three-dimensional letters. The "M" is white, the "E" is red, and the "g" is white. The remaining letters "g", "a", "t", "a", "n", "k" are white.

Megatank

Company Profile

Megatank Solar Energy Limited initiated and established by elites in the new energy field, it focuses on the development, production, sales and overseas technical service of lithium battery energy storage systems, offering but not limited to OEM and ODM service. The goal is to become a global supplier of high-quality lithium battery energy storage system, providing stable and reliable power supply for families and small business owners around the world.

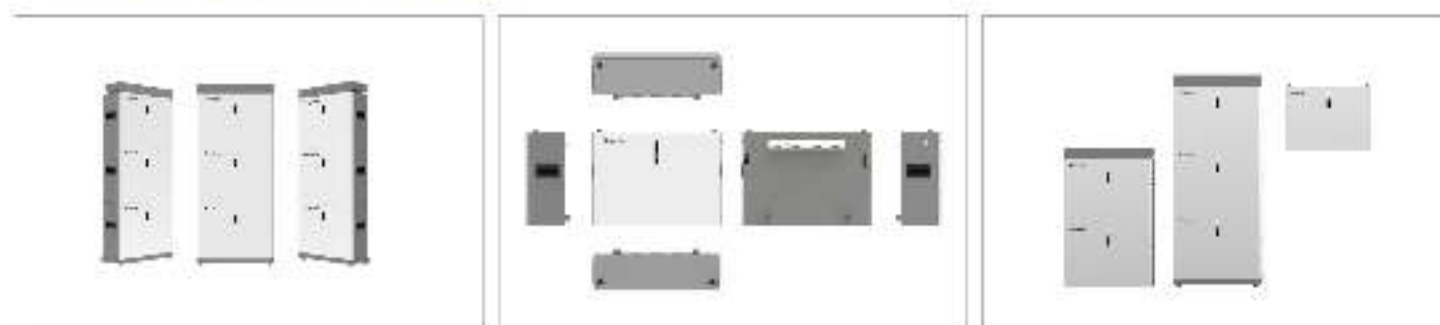
With Strong R & D capabilities in developing all in one system and ESS lithium battery, GT Powertank have mastered core technologies such as BMS, EMS, and cloud services with numerous national patents.

So far, we have established localized business development teams, technical service centers and after-sales service networks in South Africa, East Africa, West Africa and other countries to provide reliable and efficient after-sales service guarantee for GT product users.

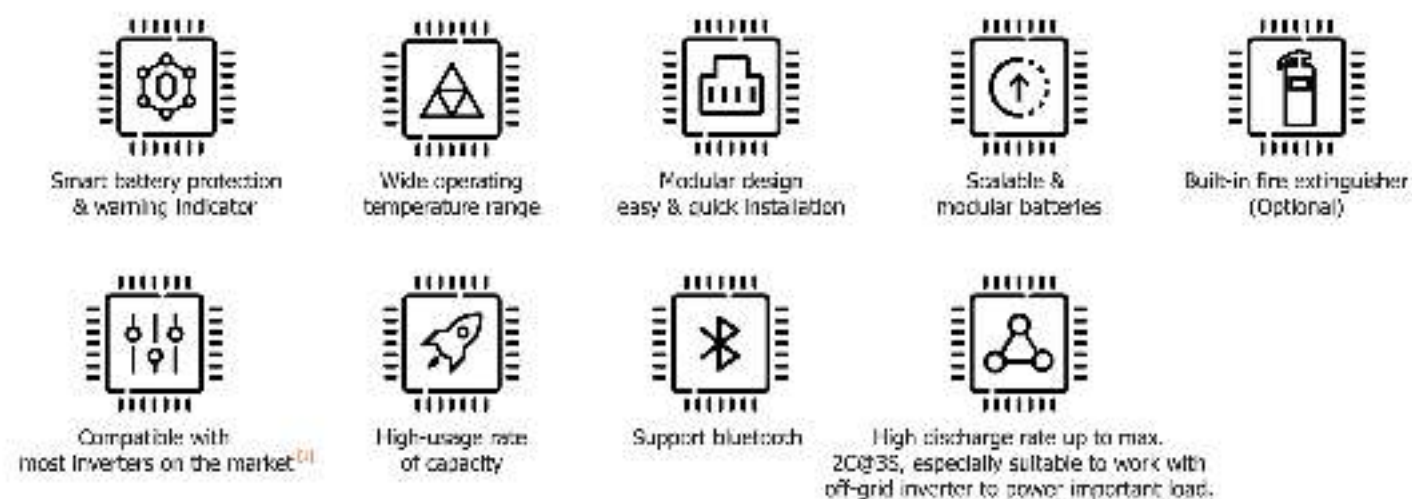
www.gt-ess.com



Product appearance



Highlights



Note: [1] Please contact our support team to get more information about the compatibility of your inverter and our battery.

Specification

Electrical Specification	
Rated voltage [V]	51.2V
Rated capacity [Wh]	5120Wh
Discharging voltage range [V]	44.8V - 55.2V
Charging voltage range [V]	51.7V - 55.2V
Charging mode	CC - CV
Recommended charging/discharging current [A]	50A
Max. continuous charging/discharging current [A]	100A
Peak discharging current [A]	$130 \leq I < 200A@10sec$; $200 \leq I < 300A@3sec$; $300 \leq I < 600A@1sec$
Max. continuous discharging power	5kW@25°C, >10min
Operating temperature range [°C]	0°C - 55°C (charging) -20°C - 60°C (discharging)
Ambient temperature range [°C]	Recommended -10°C - 40°C
Cycle life	5000 cycles
Built-in fire extinguisher	Yes (Optional)
General Specification	
Communication port	RS485, CAN
Scalable (Max. units in parallel)	Up to 15 batteries
Storage temperature [°C]	Recommended 0°C - 35°C
Relative humidity	0 - 85%
IP rating	IP43
Cooling	Natural cooling
Dimension(L×H×W)(mm)	600mm × 435mm × 198mm
Weight [kg]	≈52kg
Certification	UN38.3

Installation case



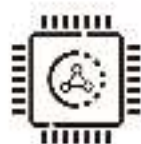
Energy Storage System
LiFePO₄ Battery

GL48200S

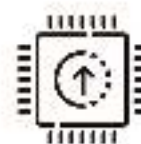
51.2V 200AH



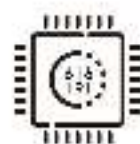
Highlights



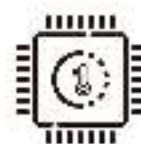
High discharge rate up to max.
2C@35, especially suitable to work with
off-grid inverter to power important load



High-usage rate of capacity



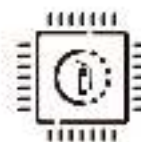
Compatible with
most inverters on the market [1]



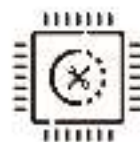
Wide operating
temperature range



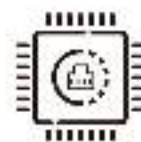
Smart battery protection
& warning indicator



Built-in fire extinguisher



Modular design
easy & quick installation



Scalable & modular batteries

Note: [1] Please contact our support team to get more information about the compatibility of your inverter and our battery.

Specification

Mode NO	GL48200S
Rated voltage(V)	51.2V
Rated capacity(Wh)	10496Wh
Discharging voltage range(V)	44.8V - 55.2V
Charging voltage range(V)	54.7V - 55.2V
Charging mode	CC-CV
Recommended charging/discharging current(V)	50A
Max. continuous charging/discharging current(V)	100A
Peak discharging current(V)	130 ≤ I < 200A@10sec; 200 ≤ I < 300A@3sec
Max continuous output power(W)	5000W
Operating temperature range(°C)	0°C-55°C (charging) -20°C-55°C (discharging)
Ambient temperature range(°C)	Recommended -10°C-40°C
Cycle life	6000 cycles
Built-in fire extinguisher	Yes
General Specification	
Communication port	RS485, CAN
Bluetooth APP	Yes
Scalable (Max. units in parallel)	Up to 15 batteries
Storage temperature(°C)	Recommended 0°C-35°C
Relative humidity	0-85%RH
IP rating	IP21
Cooling	Natural cooling
Dimension(LxWxH)(mm)	676*523*253mm
Weight(kg)	≈65kg
Certification	UN38.3

Application scenarios



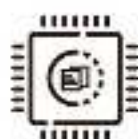
All-in-one Solar Inverter GIO-05T

5KVA/230VAC/Single Phase/WIFI&Bluetooth

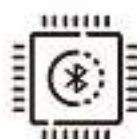
Megatank

GIO-05T

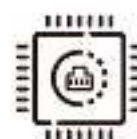
Highlights



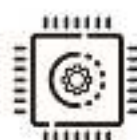
2 MPPT trackers for flexible system design and higher yields*2



App Remote Monitoring and Management



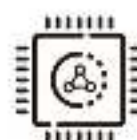
Built-in a smart port for Gen input or 2nd AC output



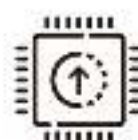
Transformer-based high surge power



4ms ultra-fast switch to battery power



Parallel & three-phase up to 9 units, 72KVA



PV/AC activation function

Specification

Model	GIO-05T
Power assist	Yes
AC input range	175~265 VAC/45~65 Hz
AC input current (transfer switch) (A)	50
Inverter	
Nominal battery voltage /Input voltage(V)	48
AC output voltage(VAC)	220/230/240±2%
AC output frequency(Hz)	50/60±0.1%
Harmonic distortion	<2%
Cont.output power at 25°C(VA)	5000
Max output power at 25°C(W)	5000
Peak power(W)	10000
Surge	300%
Maximum efficiency	94%
Zero load power(W)	22
Charger	
Charge voltage 'absorption'/'float'(V)	57.6/55.2
Battery types	Lithium
Max AC charge current(A)	60
Solar Charge Controller	
Max output current(A)	100(50+50)
Maximum PV open circuit voltage(V)	250
MPPT voltage range(V)	65~245
Number of MPPT trackers	2
Maximum PV input current per tracker(A)	36+36
Max PV short circuit current per tracker	40+40A
Maximum charge power	5760W@57.6V(2880+2880)/@57.6V)
Allowable maximum PV power per tracker	4400W+4400W
Charge voltage 'absorption'(V)/ 'float'(V)	57.6/55.2
MPPT charger maximum efficiency/MPPT efficiency	98%/>95%
Protection	Output short circuit / Overload / Over voltage / Low voltage
General Data	
AC out1 current(A)	50
Smart port current(A)	50
Transfer time	4ms(<15ms in Weak AC source Mode)
Protection	Output short circuit / Overload / Over voltage / Low voltage Over temperature / Input voltage is out of range / High input voltage ripple / Fan block
General purpose com. Port	RS485(WLAN)/CAN
Programmable relay	1x(30Vdc13A or 250Vac13A)
Operating temperature range	-20°C to 65°C
Altitude(m)	<2000
Dimension(mm)	570*310*154
Net weight(kg)	29
Cooling	Forced fan



All-in-one ESS Solution GCI25-50

25kW | 40/45/50/55kWh | IP55

- For Backup Power, Mini-grid, and C&I ESS Applications
- Supports parallel connection for system expansion

GCI25-50 is an all-in-one Mini Grid / Energy Storage System integrated with hybrid inverter, AC power distribution unit, energy management unit, battery module, and battery control unit (BCU) to form a high-voltage integrated power supply system, for convenient installation and maintenance.

As a versatile integrated system, GCI25-50 boasts better performance, safer operation, smarter system management, more flexible system retrofitting, as well as more convenient uses.

Highlights

Better Performance

- Rapid switching between on-grid and off-grid modes
- Supports seamless switch between generator and battery power
- High cycle efficiency
- Excellent charge and discharge performance
- Longer lifespan
- Minimal self-discharge losses

Smarter

- Built-in energy management unit for energy scheduling and management
- Intelligent auto generator start/stop control based on load power and time control
- Intelligent solar power generation control to maximize solar self-consumption
- Intelligent load management with multi-conditions switching control
- Intelligent grid interaction management with power control and energy optimization
- Intelligent cloud platform for remote monitoring, configurations and operation.
- Intelligent temperature control
- Unattended operation supported
- Remote power on/off control and management

Safer

- Built-in temperature detection against potential fire hazards
- Integrated dual-level fire extinguishing systems

More Flexible

- Support system expansion, up to 15 units
- Support battery cluster expansion, up to 4 units
- Support AC side parallel connection, compatible with mixed use of new and old products
- Built-in 2 MPPT trackers for flexible system design and higher yields
- Support DC coupling
- Support zero energy feedback to the grid
- Supports optimal solar self-consumption through AC coupling with a PV inverter
- Support multiple working modes
- Support two AC inputs (via optional accessories)
- Support two AC outputs (via optional accessories)

More Convenient

- Modular design
- Standardized products for easy installation and transport
- Supports outdoor using

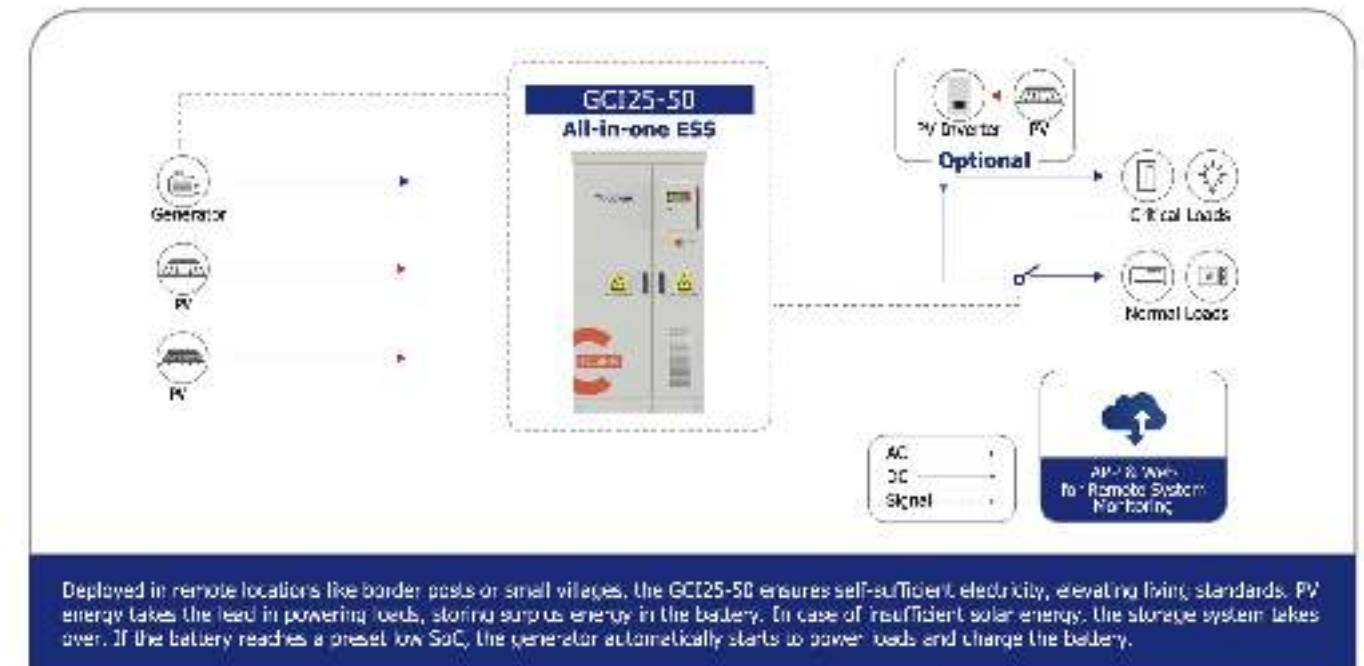
Specifications

Model No	GCI25-50
System Specification	
Nominal Output Power/Maximum AC Input Power	25kW/27.5kW
Battery Capacity Range	40/45/50/55kWh
Battery Chemistry	LiFePO ₄
IP Protection	IP55
Cooling Method	Battery Compartment: Air conditioning; Electrical Compartment: Temperature controlled forced air cooling
Cabinet Dimension(W *D* H)	1030*800*2000mm
Warranty	5 years
Hybrid Inverter Specification	
Nominal Power	25kW
Battery Voltage Range	320~800V
Max. Charging/Discharging Current	80A
AC Side (Grid)	
Nominal Output Power/Max. AC Current	25kW/40A
Nominal AC Voltage/AC Voltage Range	400V/230V(-20%~15%)
Nominal Grid Frequency/Frequency Range	50Hz/47Hz~52Hz, 60Hz/57Hz~62Hz
AC Current THD	<5%(Resistance load)
Power Factor at Nominal Power/Adjustable Power Factor	-0.8~0.8
Adjustable Reactive Power	-15kVA~+15kVA
AC Side (Micro-Grid)	
Nominal AC Voltage	400V/230V(-5%~5%)
AC Voltage THD	<3%(Resistance load)
Unbalance Load Capacity	100%
AC Output Power	25kW
PV Input	
PV open circuit voltage/MPPT voltage range	250~850V/200~830V
PV short circuit current (A)/Maximum PV power(W)	25+25A/15+15KW
General	
Max. Efficiency	97.80%
Reverse Polarity Protection	Yes
Grid Monitoring/Ground Fault Monitoring	Yes/Yes
Insulation Monitoring/Overheat Protection	Yes/Yes
Operating Ambient Temperature Range	-30~60°C(>45°C derating)
Allowable Relative Humidity Range (non-condensing)	5~95%

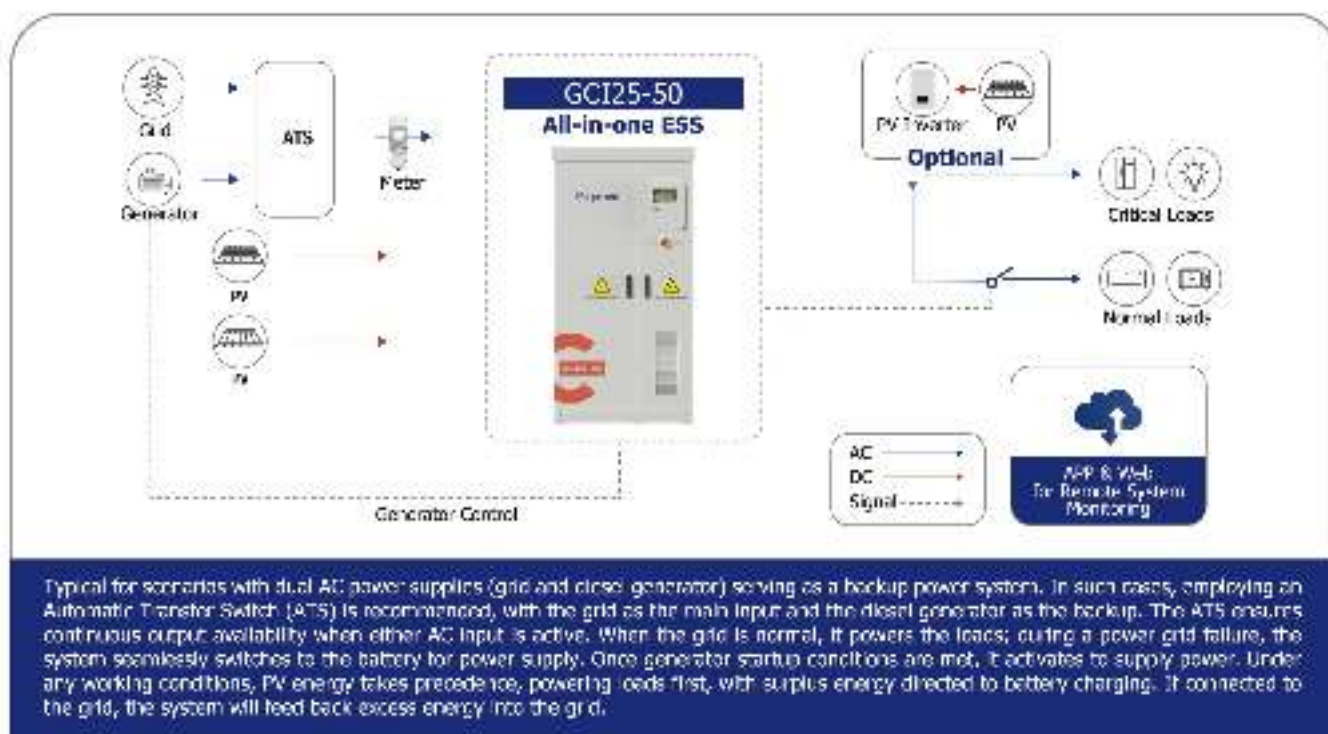
Specifications

Model No	GCI25-50
Cooling Method	Temperature controlled forced air cooling
Max. Operating Altitude	2000m(>2000m derating)
Grid Support	LVRT, active & reactive power control and power ramp rate control
Lithium Battery Technical Specification	
Module Voltage	48V
Module Capacity	5.04kWh
Module Quantity	8/9/10/11 Series
Operating Temperature Range	Discharge:-20°C~55°C charge:0°C~55°C
Maximum Charging/Discharging Current	52.5A/105A
Safety	UN38.3

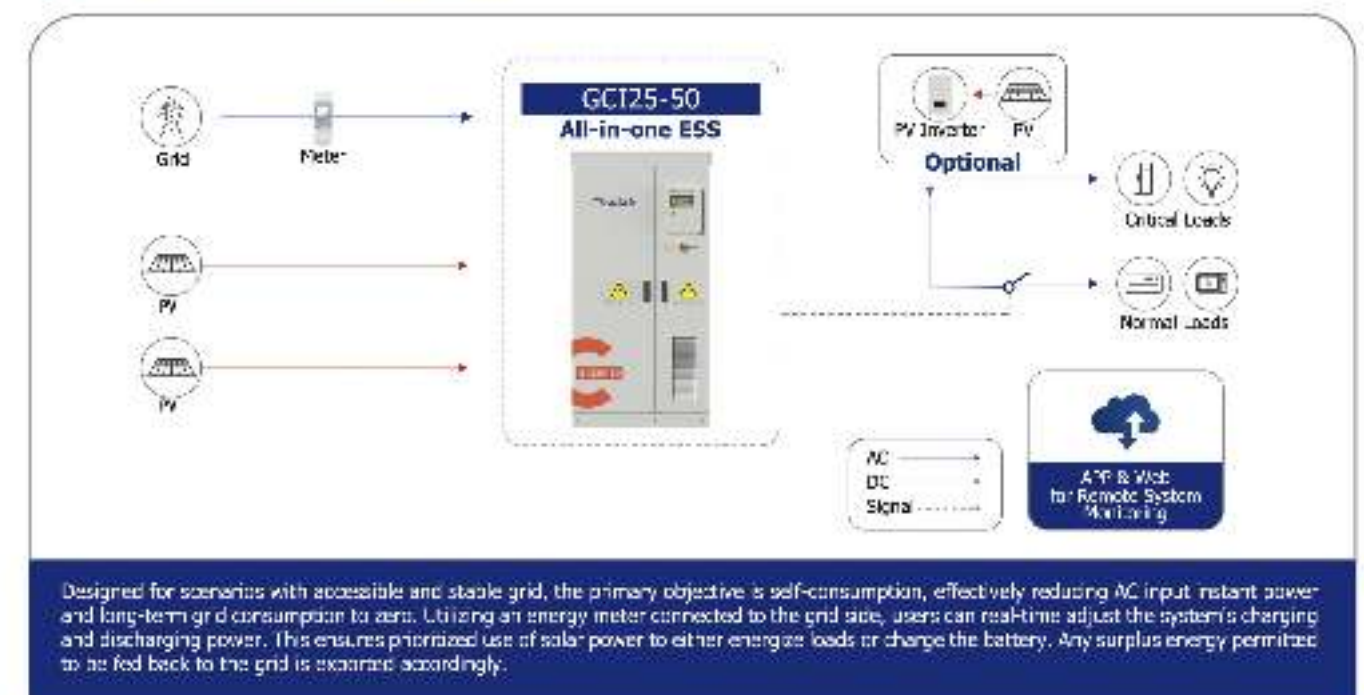
For mini-grid application



For backup power application



For ESS application





All-in-one ESS Solution GCI50-100

50kW | 105kWh | IP55

- For Backup Power, Mini-grid, and C&I ESS Applications
- Supports parallel connection for system expansion

GCI50-100 is an all-in-one Mini Grid / Energy Storage System integrated with hybrid inverter, AC power distribution unit, energy management unit, battery module, and battery control unit (BCU) to form a high-voltage integrated power supply system, for convenient installation and maintenance.

As a versatile integrated system, GCI50-100 boasts better performance, safer operation, smarter system management, more flexible system retrofitting, as well as more convenient uses.

Highlights

Better Performance

- Rapid switching between on-grid and off-grid modes
- Supports seamless switch between generator and battery power
- High cycle efficiency
- Excellent charge and discharge performance
- Longer lifespan
- Minimal self-discharge losses

Smarter

- Built-in energy management unit for energy scheduling and management
- Intelligent auto generator start/stop control based on load power and time control
- Intelligent solar power generation control to maximize solar self-consumption
- Intelligent load management with multi-conditions switching control
- Intelligent grid interaction management with power control and energy optimization
- Intelligent cloud platform for remote monitoring, configurations and operation.
- Intelligent temperature control
- Unattended operation supported
- Remote power on/off control and management

Safer

- Built-in temperature detection against potential fire hazards
- Integrated dual-level fire extinguishing systems

More Flexible

- Support system expansion, up to 7 units
- Support battery cluster expansion, up to 4 units
- Support AC side parallel connection, compatible with mixed use of new and old products
- Built-in 4 MPPT trackers for flexible system design and higher yields
- Support DC coupling
- Support zero energy feedback to the grid
- Supports optimal solar self-consumption through AC coupling with a PV inverter
- Support multiple working modes
- Support two AC inputs (via optional accessories)
- Support two AC outputs (via optional accessories)

More Convenient

- Modular design
- Standardized products for easy installation and transport
- Supports outdoor using

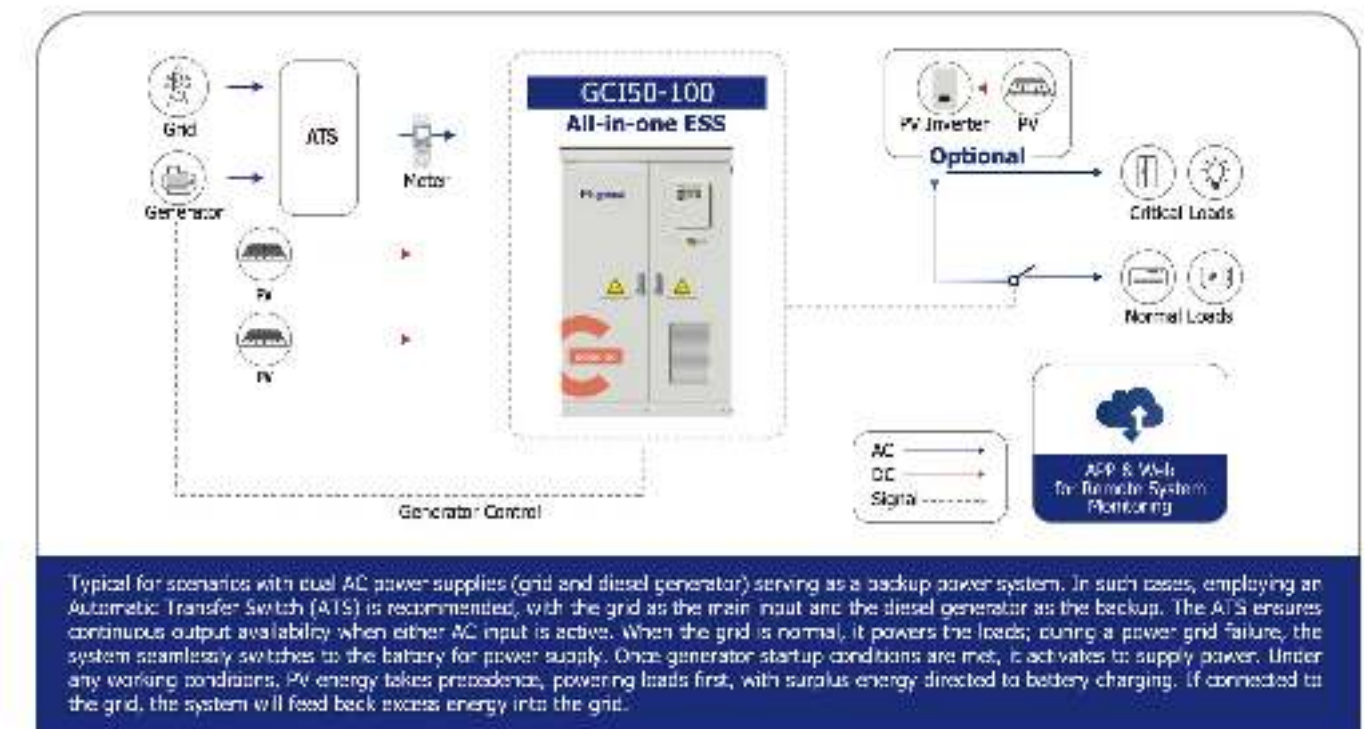
Specifications

Model No	GCI50-100
System Specification	
Nominal Output Power/Maximum AC Input Power	50kW/55kW
Battery Capacity Range	105kWh
Battery Chemistry	LiFePO ₄
IP Protection	IP55
Cooling Method	Battery Compartment: Air conditioning; Electrical Compartment: Temperature controlled forced air cooling
Cabinet Dimension(W *D* H)	1300*1300*2000mm
Warranty	5 years
Hybrid Inverter Specification	
Nominal Power	50kW
Battery Voltage Range	320~800V
Max. Charging/Discharging Current	160A
AC Side (Grid)	
Nominal Output Power/Max. AC Current	50kW/80A
Nominal AC Voltage/AC Voltage Range	400V/230V(-20%~15%)
Nominal Grid Frequency/Frequency Range	50Hz/47Hz~52Hz, 60Hz/57Hz~62Hz
AC Current THD	<5%(Resistance load)
Power Factor at Nominal Power/Adjustable Power Factor	-0.8~0.8
Adjustable Reactive Power	-30kVA~+30kVA
AC Side (Micro-Grid)	
Nominal AC Voltage	400V/230V(-5%~5%)
AC Voltage THD	<3%(Resistance load)
Unbalance Load Capacity	100%
AC Output Power	50kW
PV Input	
PV open circuit voltage/MPPT voltage range	250~850V/200~830V
PV short circuit current (A)/Maximum PV power(W)	25+25+25+25A/15+15+15+15kW
General	
Max. Efficiency	97.80%
Reverse Polarity Protection	Yes
Grid Monitoring/Ground Fault Monitoring	Yes/Yes
Insulation Monitoring/Overheat Protection	Yes/Yes
Operating Ambient Temperature Range	-30~60°C(>45°C derating)
Allowable Relative Humidity Range (non-condensing)	5~95%

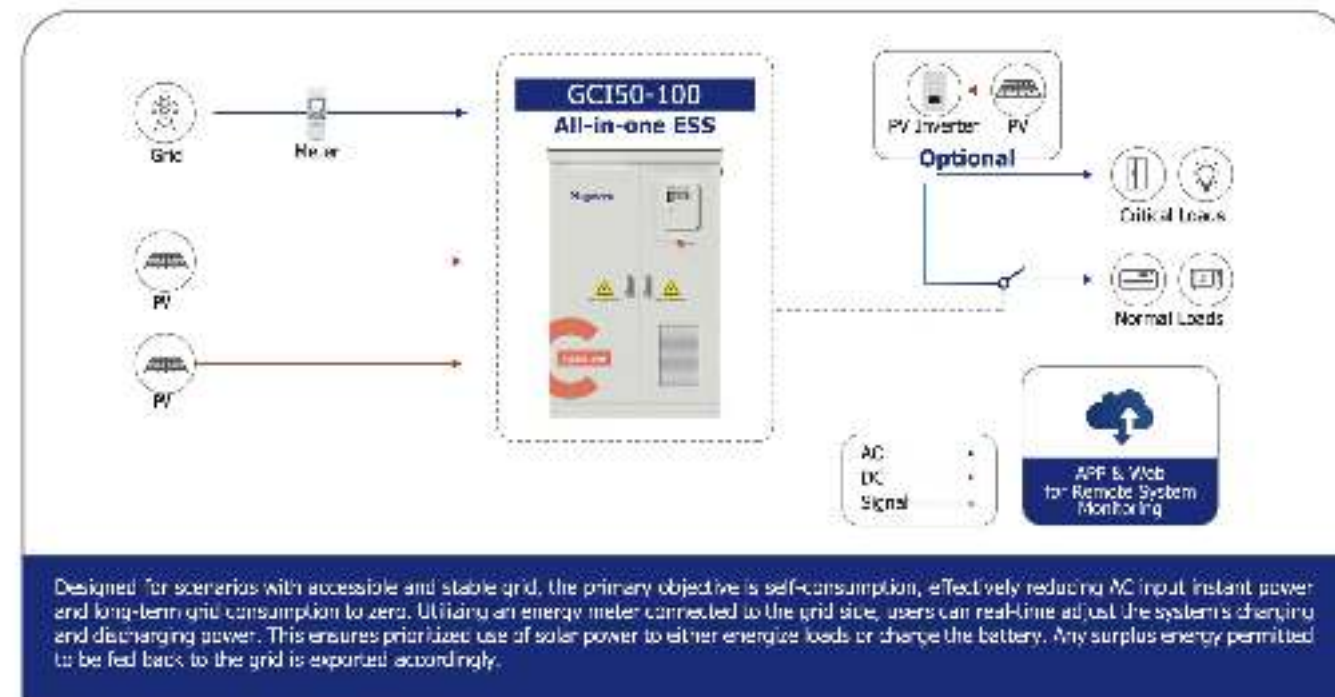
Specifications

Model No	GCI50-100
Cooling Method	Temperature controlled forced air cooling
Max. Operating Altitude	2000m(>2000m derating)
Grid Support	LVRT, active & reactive power control and power ramp rate control
Lithium Battery Technical Specification	
Module Voltage	57.6V
Module Capacity	17.5kWh
Module Quantity	6 Series
Operating Temperature Range	Discharge:-20°C~55°C charge:0°C~55°C
Maximum Charging/Discharging Current	152A/152A
Safety	UN38.3

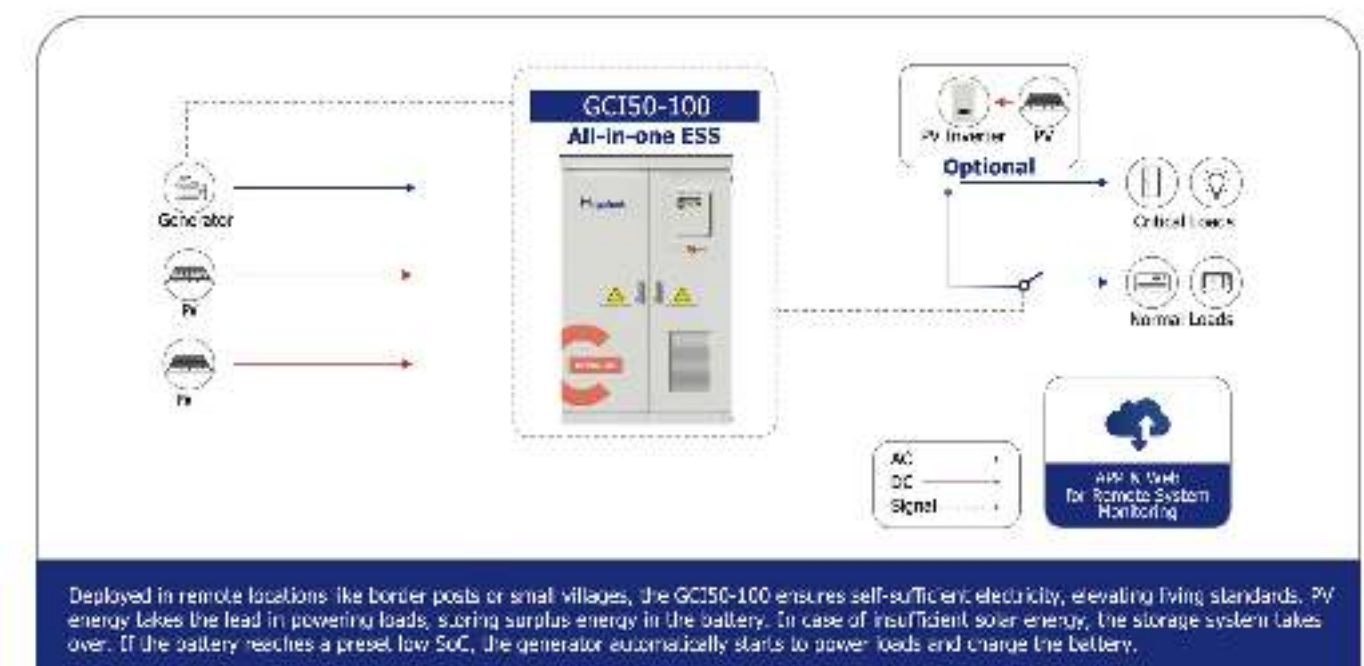
For backup power application



For ESS application



For mini-grid application



All-in-one ESS solution

Ener Hexon® Solution 110

50kW | 110kWh | IP54

Ener Hexon® Solution 110 is an all-in-one Mini Grid / Energy Storage System, integrated with 50kW hybrid inverter, BMS, EMS, 110kWh air-cooling high-voltage battery storage pack, smart temperature control system, a precision suppression and explosion-proof combined fire protection system, as well as cabinet structure and electrical auxiliary equipment to form a high-voltage integrated power supply system, for convenient installation and maintenance.



Highlights



Safe

Smart warning ensures energy storage safety and precise temperature control extends product life by **12%**.



Simple

Occupying only **1.3m²** of floor space, modular deployment enables rapid installation, while prefabricated components save **15%** in costs.



Smart

Cloud-based smart operation and maintenance, AI-enabled remote monitoring and early warning ensure the full life cycle of batteries, while multi-mode switching increases revenue.



Expansive

Hand-in-hand parallel expansion, covering a wide power range from **50kW** to **300kW**.

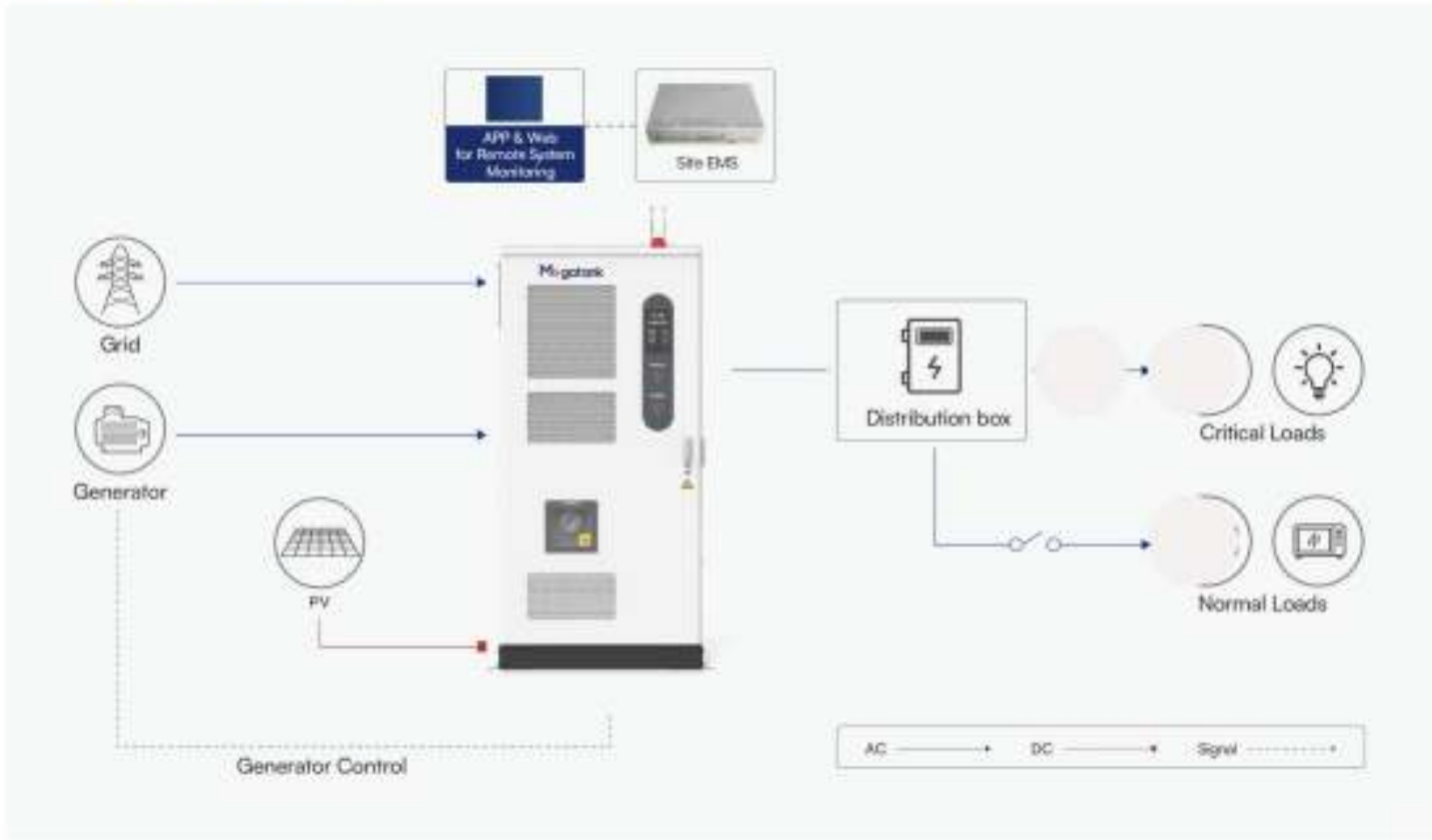
Specification

Model		Ener Hexon® Solution 110P
DC side (PV)	Max.input power	96kW
	Starting voltage	210Vdc
	Max.DC input voltage	1000Vdc
	Rated DC input voltage	620Vdc
	MPPT voltage range	330~850Vdc
	Qty.of MPPT	4
	Qty.of single-channel MPPT input channels	2
	Max.input current (Each MPPT)	40A*4
	Max.short circuit current(Each MPPT)	50A*4
DC side (Battery)	Rated energy	110kWh
	Rated voltage	352Vdc
	Battery voltage range	308-396Vdc
	Rated charge/discharge current	140A
	Max.charge/discharge current	165A
AC parameters	Rated output power	50kW
	Rated input power	50kW
	Max.output current	76A
	Rated voltage(input&output)	3L/N/PE, 220V/380V, 230V/400V
	Grid frequency	50Hz/60Hz
	THD	<3%@ rated power & linear load
	Switching time between on-grid and off-grid modes	<20 ms
System parameters	Net weight	1350kg
	gross weight	1400kg
	Dimensions	1000*1320*2140(W*D*H, mm)
	Packing dimension	1070*1390*2285(W*D*H, mm)
	Communication mode	RS485, Ethernet, 4G
	Operating temperature	-20°C~50°C (>45°C derating)
	Storage temperature	-20°C~45°C
	Relative humidity	5~95%, no condensing
	Altitude	3000m (>2000m derating)
	Ingress protection	IP54
	Battery certification	IEC62619, IEC61000, UN38.3
	Inverter certification	IEC61000, IEC62477, IEC62109, EN50549-1

•Product continues to iterate, specifications may be updated without prior notice

⚡ Application

Micro-grid (single unit)



⚡ Installation site



Micro-grid (Parallel solution: up to 6 units)





GCI125-261Y1

125kw/261KWh



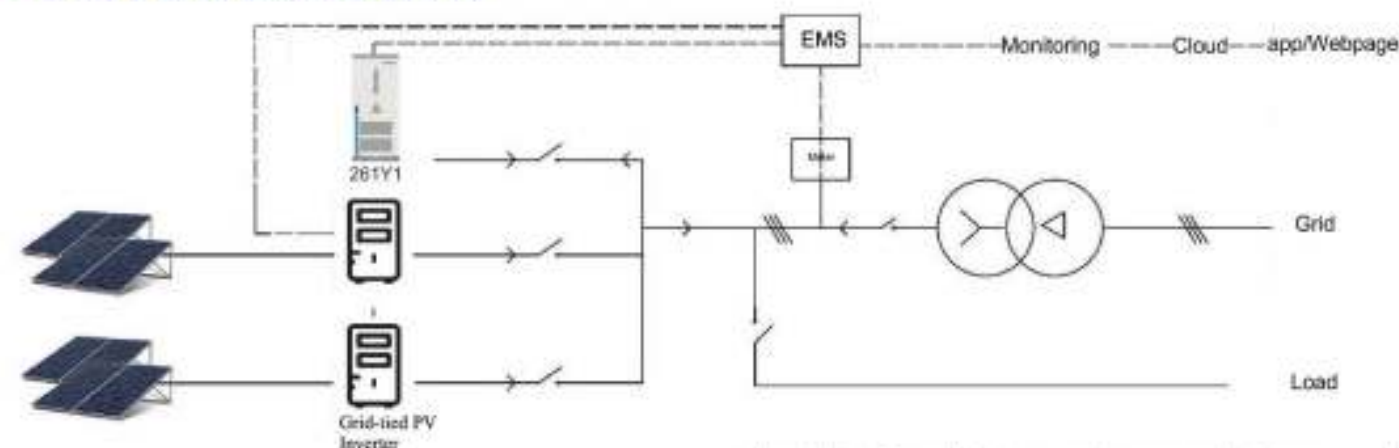
Product Features

- Highly integrated ESS for easy transportation and O&M
- Modular design supports parallel connection and easy system expansion
- Pack level fire protection, more safer
- Intelligent liquid cooling ensures higher efficiency and longer battery cycle life
- Simple operation and maintenance, remote fault diagnosis and upgrade
- Supports remote one-click black start to ensure the stability and safety of the power system
- Can be applied to power side, grid side, wind power/PV distribution and storage

Specification

Product Model	GCI125-261Y1
DC-Side Parameters	
Cell Type	LFP 314Ah
Battery Capacity(BOU)	261kWh
Rated Voltage	832V
voltage Range	650V~949V
Maximum DC Current	180A
Rated DC Current	157A
Battery Module	1P52S
AC-Side Parameters	
Rated AC Power(kW)	125kW
Rated Voltage	400V
Voltage Range	340V~460V
Rated Current	182A
Rated Frequency	50Hz/60Hz
Power Factor	-1~1
AC Connection	3P3L/3P4L
System Data	
Rated System Capacity	125kW/261kWh
Dimension(W/H/D)	1000/2300/1380mm
Weight	2300kg
Rated Charge/Discharge	0.5P
System Cycle Life	≥8000 times(@25°C,90%DOD,0.5P EOL≥70%)
System Efficiency	≥89%(includes auxiliary power consumption)
Fire Protection	Perfluorohexanone (supports PACK level) + combustible gas detection + fire exhaust/pressure relief function, dry water fire protection
Cooling Mode	Liquid cooling
Storage Temperature Range	-20°C~45°C
Operating Temperature Range	Charge:0~50°C;Discharge:-20~50°C
Max. Working Altitude	4000m
Relative Humidity	RH ≤95%(non-condensing)
Degree of Protection	>IP54
Communication Interfaces	RS485/CAN/Ethernet
Remote Control	EMS,Cloud EMS, mobile app
Optional Mode	On-grid/off-grid switching
Applications	Peak shaving and valley filling, demand response, microgrid, emergency backup power supply
Anti-Corrosion Grade	≥C3
Design Life(years)	≥10
Max.in Parallel Operation	32 units on grid and 10 units off grid
External ElectricalInterface	Three-phase four-wire+PE line

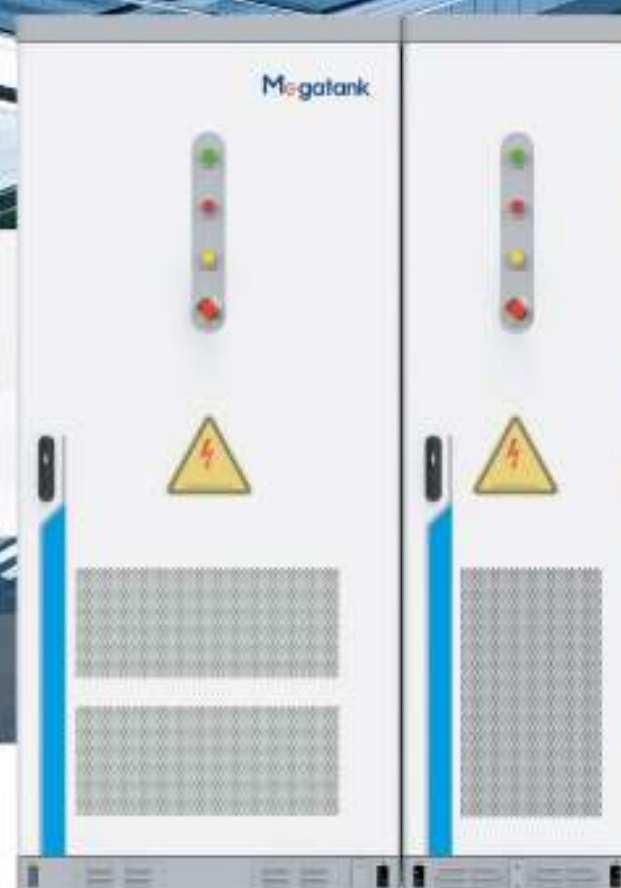
SYSTEM DIAGRAM





GCI125-261Y2

125kw/261KWh



Product Features

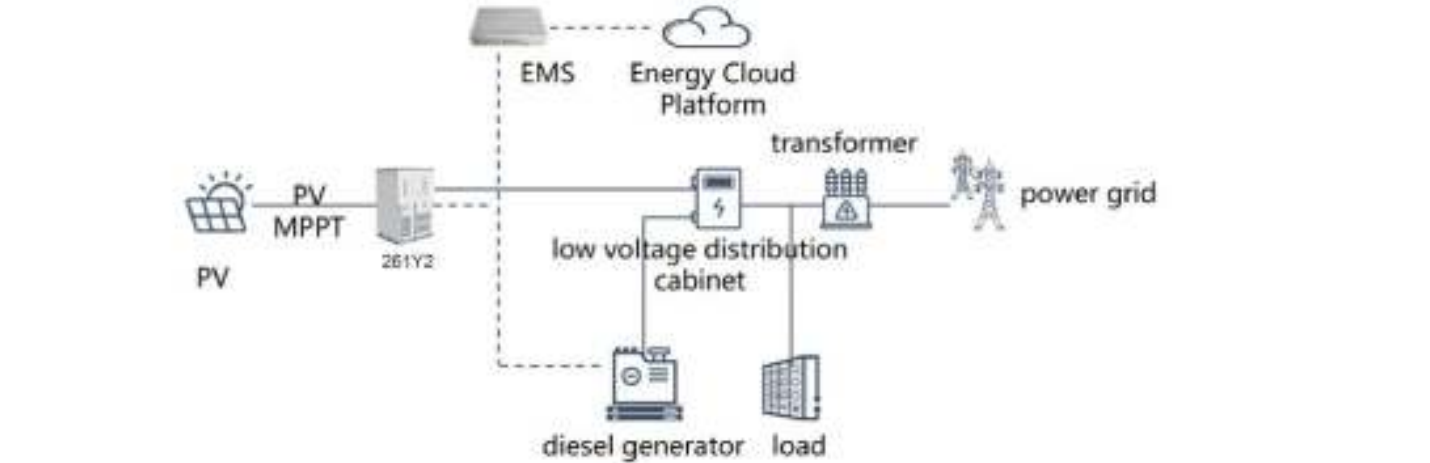
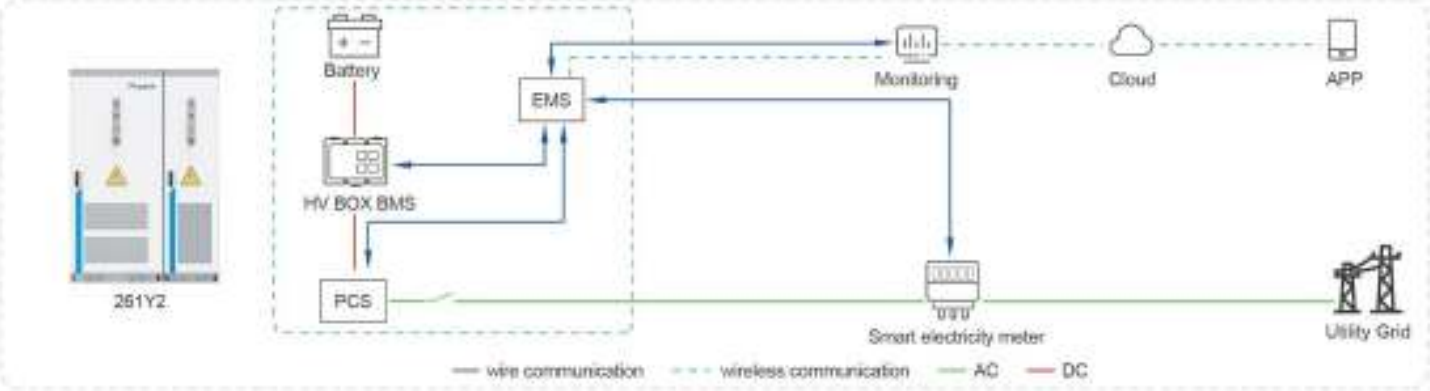
- Highly integrated ESS for easy transportation and O&M
- Modular design supports parallel connection and easy system expansion
- Pack level fire protection, more safer
- Intelligent liquid cooling ensures higher efficiency and longer battery cycle life
- Simple operation and maintenance, remote fault diagnosis and upgrade
- Supports remote one-click black start to ensure the stability and safety of the power system
- Can be applied to power side, grid side, wind power/PV distribution and storage

Specification

Product Model	GCI125-261Y2
DC-Side Parameters	
Cell type	LiFP 744Ah
Battery Capacity (SOC)	251kWh
Rated Voltage	832V
Voltage Range	650V~944V
Maximum DC Current	160A
Rated DC Current	157A
Battery Module	102S
PV Parameters	
MPPT Module	Rated 120kW, 4-channel independent MPPT, each rated 30kW, maximum current per channel 40A
MPPT Voltage Range	300~900VDC
MPPT Rated Voltage	800VDC
PV Input Power	240kW
Output Voltage Range	200~1000VDC
Rated Output Voltage	600VDC
Total Output Current	0~400A
Efficiency	≥99%
Grid Side Parameters	
Rated Power On Grid Side	125kW
Rated Grid Connected Voltage / Voltage Range	400VAC(340~450VAC)/3L+N-PE
Rated Frequency/Frequency Range	50/60Hz(±0.5%)
THD	<3%(Rated)
Overload Capacity	<110% long-term, <120% 30min, <150% 1min
Generator Input	Support (optional ATS module)
Communication	Ethernet/4G/CAN
Remote Control	DMS, APP/Cloud DMS, mobile app
Dimension(W*H*PD)	600*2300*1380mm
Weight	4000kg
AC-Side Parameters	
Rated AC Power(kW)	125kW
Rated Voltage	400V
Voltage Range	370V~450V
Rated Current	20A
Rated Frequency	50/60Hz
Power Factor	-1~1
AC Connection	3P3L/3P4L
System Data	
Rated System Capacity	125kW/261kWh
Dimension(W*H*PD)	1000*2300*1380mm
Weight	2300kg
Rated Charge/Discharge	0.5P
System Cycle Life	≥5000 times(25°C, 90%DOD, 0.5P 10L≤70%)
System Efficiency	≥97%(includes auxiliary power consumption)
Fire Protection	Perfluorohexane (supports PACK level 1 combustible gas detection + fire exhaust, pressure relief function, dry water fire protection)
Cooling Mode	Liquid cooling
Storage Temperature Range	-20°C~45°C
Operating Temperature Range	Charge:0~50°C, Discharge: 20~50°C
Max. Working Altitude	4000m
Relative Humidity	10~95%(non-condensing)
Degree of Protection	IP54
Communication Interfaces	RS485/CAN/Ethernet

Remote Control	EMS, Cloud EMS, mobile app
Optional Mode	On-grid/off-grid switching
Applications	Peak shaving and valley filling, demand response, microgrid, emergency backup power supply
Anti-Corrosion Grade	≥C3
Design Life(years)	≥10
Max.in Parallel Operation	32 units on grid and 10 units off grid
External Electrical Interface	Three-phase four-wire+PE line

⚡ SYSTEM DIAGRAM



⚡ Application Renderings





GCI250-466Y2

250kw/466KWh

Product Features

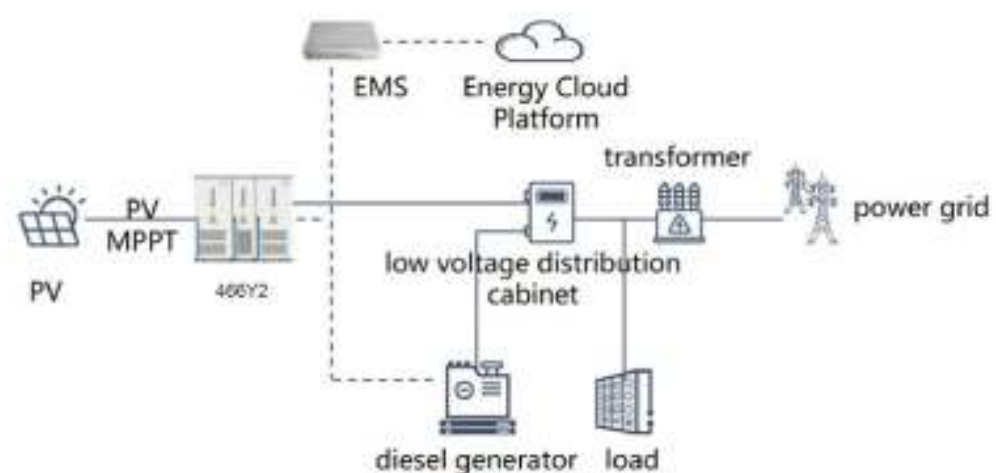
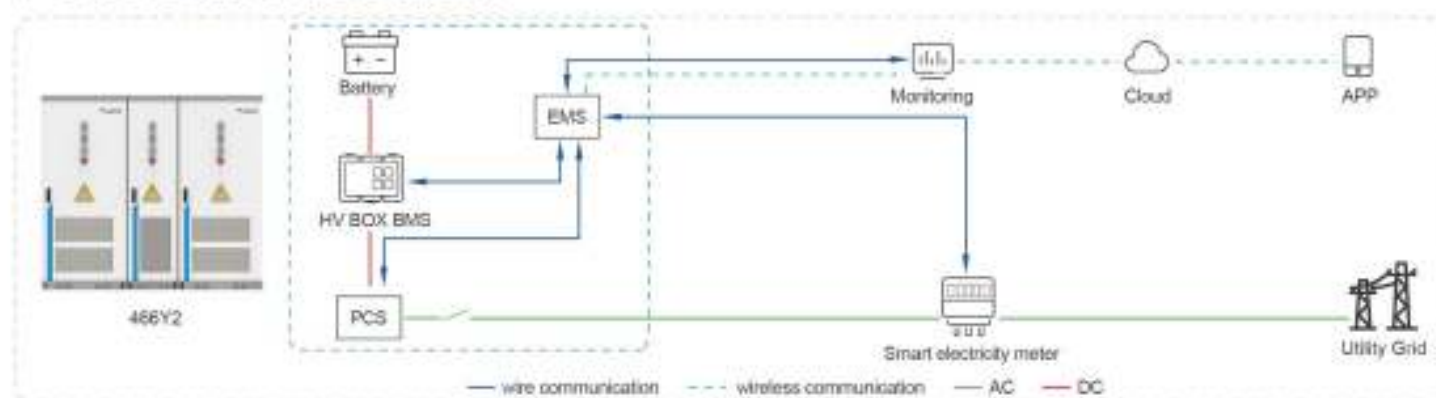
- Highly integrated ESS for easy transportation and O&M
- Modular design supports parallel connection and easy system expansion
- Pack level fire protection, more safer
- Intelligent liquid cooling ensures higher efficiency and longer battery cycle life
- Simple operation and maintenance, remote fault diagnosis and upgrade
- Supports remote one-click black start to ensure the stability and safety of the power system
- Can be applied to power side, grid side, wind power/PV distribution and storage

Specification

Product Model	GCI250-466Y2
DC-Side Parameters	
Cell Type	LFP 280Ah
Battery Capacity(BOL)	466KWh
Rated Voltage	832V
Voltage Range	650V~949V
Maximum DC Current	180A*2
Rated DC Current	157A*2
Battery Module	IP52S
PV Parameters	
MPPT Module	Rated 120KW, 4-channel independent MPPT, each rated 30kW, maximum current per channel 40A
MPPT Voltage Range	300-900VDC
MPPT Rated Voltage	800VDC
PV Input Power	240KW
Output Voltage Range	200-1000VDC
Rated Output Voltage	600VDC
Total Output Current	0-400A
Efficiency	>99%
Grid Side Parameters	
Rated Power On Pcs Side	250KW
Rated Grid Connected Voltage / Voltage Range	400VAC(340-460VAC):3L+PE
Rated Frequency/Frequency Range	50/60Hz(+5Hz)
THDI	<3%(Rated)
Overload Capacity	<110% long-term, <120% 30min, <150% 1min
Generator Input	Support (optional ATs module)
Communication	Ethernet,4G,CAN
Remote Control	EMS, APPCloud EMS, mobile app
Dimension(W*H*D)	600*2300*1380mm
Weight	450kg
AC-Side Parameters	
Rated AC Power(kW)	250KW
Rated Voltage	400V
Voltage Range	340V~460V
Rated Current	182A*2
Rated Frequency	50Hz/60Hz
Power Factor	-1~1
AC Connection	3P3L/3P4L
System Data	
Rated System Capacity	250KW/466KWh
Dimension(W/H/D)	(1000*2300/1380mm)*2
Weight	2300kg*2
Rated Charge/Discharge	0.5P
System Cycle Life	≥8000 times(25°C, 90%DOD, 0.5P EOL≥70%)
System Efficiency	≥89%(Includes auxiliary power consumption)
Fire Protection	Perfluorohexanone (supports PACK level) + combustible gas detection + fire exhaust / pressure relief function, dry water fire protection
Cooling Mode	Liquid cooling
Storage Temperature Range	-20°C~45°C
Operating Temperature Range	Charge:0~50°C;Discharge: -20~50°C
Max. Working Altitude	4000m
Relative Humidity	RH ≤95%(non-condensing)
Degree of Protection	≥IP54
Communication Interfaces	RS485/CAN/Ethernet

Remote Control	EMS, Cloud EMS, mobile app
Optional Mode	On-grid/off-grid switching
Applications	Peak shaving and valley filling, demand response, microgrid, emergency backup power supply
Anti-Corrosion Grade	≥C3
Design Life(years)	≥10
Max.in Parallel Operation	32 units on grid and 10 units off grid
External Electrical Interface	Three-phase four-wire+PE line

⚡ SYSTEM DIAGRAM



⚡ Application Renderings



250KW-466KWh



250KW-466KWh

Commercial ESS solution

Ener Hexon® Solution 98P

50kW | 98kWh | IP20

- For backup power, Micro-grid and commercial ESS indoor applications
- Supports parallel connection for system expansion

Ener Hexon® Solution 98P is an split Energy Storage System, integrated with hybrid inverter, BMS, EMS, air-cooling high-voltage battery storage pack, smart temperature control system, and electrical auxiliary equipment to form a high-voltage integrated power supply system, for convenient installation and maintenance.



Highlights

High Performance

- Supports 100% three-phase unbalanced output
- Off-grid switching time < 20ms
- 200% PV input capacity to maximize solar energy utilization
- Max. 110% overload capability in off-grid mode
- Minimal self-discharge losses
- Long lifespan, 6000 cycles at 90% DOD

Smart Energy Management

- Built-in energy management unit for energy scheduling and management
- Cloud platform management system, supporting remote/local monitoring
- Intelligent balancing strategy, system AI warning, ensuring consistency throughout the battery life cycle
- Intelligent cloud operation and maintenance without on-site maintenance
- Intelligent auto generator start/stop control based on load power and time control
- Intelligent load management with multi-conditionswitching control
- EMS App support for quick and easy setup
- Remote power on/off control and management

Flexible & Scalable

- Support multiple working modes
- Support diesel generators connection, and flexibly support multiple energy supplies
- 4 MPPTs, perfectly matched with high-power photovoltaic modules

Simple & Convenient

- Modular installation, the whole set occupies an area of only 0.46m²
- The HMI LCD configuration screen for an intuitive user experience
- Overall delivery, factory prefabrication, whole machine transportation is convenient for installation and operation and maintenance

Safe

- Built-in temperature detection against potential fire hazards
- Electrical multi-dimensional protection fusion perception, multi-level circuit breaker protection
- High-voltage protection connectors are used for series connection of energy storage battery groups to improve the reliability of system operation and maintenance
- Windflow channel and fire isolation design improve the safety of product transportation and operation.
- Standard lightning protection module, AC Type II surge protection

Specification

Model		Ener Hexon® Solution 98P		
System parameters				
Nominal Output Power		50kW (Optional: 30kW/40kW)		
Battery Capacity		98kWh (Optional: 126kWh–196kWh)		
Battery Type		LiFePO4		
IP Protection		IP20		
System Dimension (W×D×H)		570*800*2100 mm (Battery) 530*880*290 mm (Inverter) 800*200*700 mm (Power box)		
Net Weight		800kg (Battery) 73kg (Inverter) 20kg (Power box)		
Operating temperature (BT)		Charge: 0–45°C, discharge: -20 – 45°C		
Storage temperature		0–35°C		
Humidity		10–85%RH (Non-condensing)		
Operation altitude		<3000m (>2000m derating)		
Hybrid Inverter Specification				
	Model No.	30K (optional)	40K (optional)	50K
PV Input	Recommended max. PV array size	60kW	80kW	100kW
	Max. usable PV input power	60kW	80kW	96kW
	Max. input voltage	1000V		
	Rated voltage	600V		
	Starting voltage	180V		
	MPPT voltage range	150–850V		
	Max. input current	40A/40A	40A * 4	
	Max. short circuit current	60A/60A	60A * 4	
	MPPT number / Max. input strings number	3/6	4/8	
AC Output (Grid side)	Rated output power	30kW	40kW	50kW
	Max. apparent output power	30KVA	40KVA	50KVA
	Rated grid voltage	3L/N/PE, 220V/380V, 230V/400V		
	Rated grid frequency	50Hz/60Hz		
	Rated grid output current	45.6A/43.3A	60.8A/57.7A	76A/72.2A
	Max. grid input current	45.6A/43.3A	60.8A/57.7A	76A/72.2A
	Power factor	> 0.99 (0.8 leading - 0.8 lagging)		
	THDu	<3%		
AC Input (Grid side)	Max. grid bypass input current	91.2A/86.6A	121.6A/115.4A	152A/144.4A
	Grid input rated voltage	3L/N/PE, 220V/380V, 230V/400V		
	Rated input frequency	50Hz/60Hz		
Generator input	Max. input power	30kW	40kW	50kW
	Max. input current	45.6A/43.3A	60.8A/57.7A	76A/72.2A
	Rated input voltage	3L/N/PE, 220V/380V, 230V/400V		
	Rated input frequency	50Hz/60Hz		

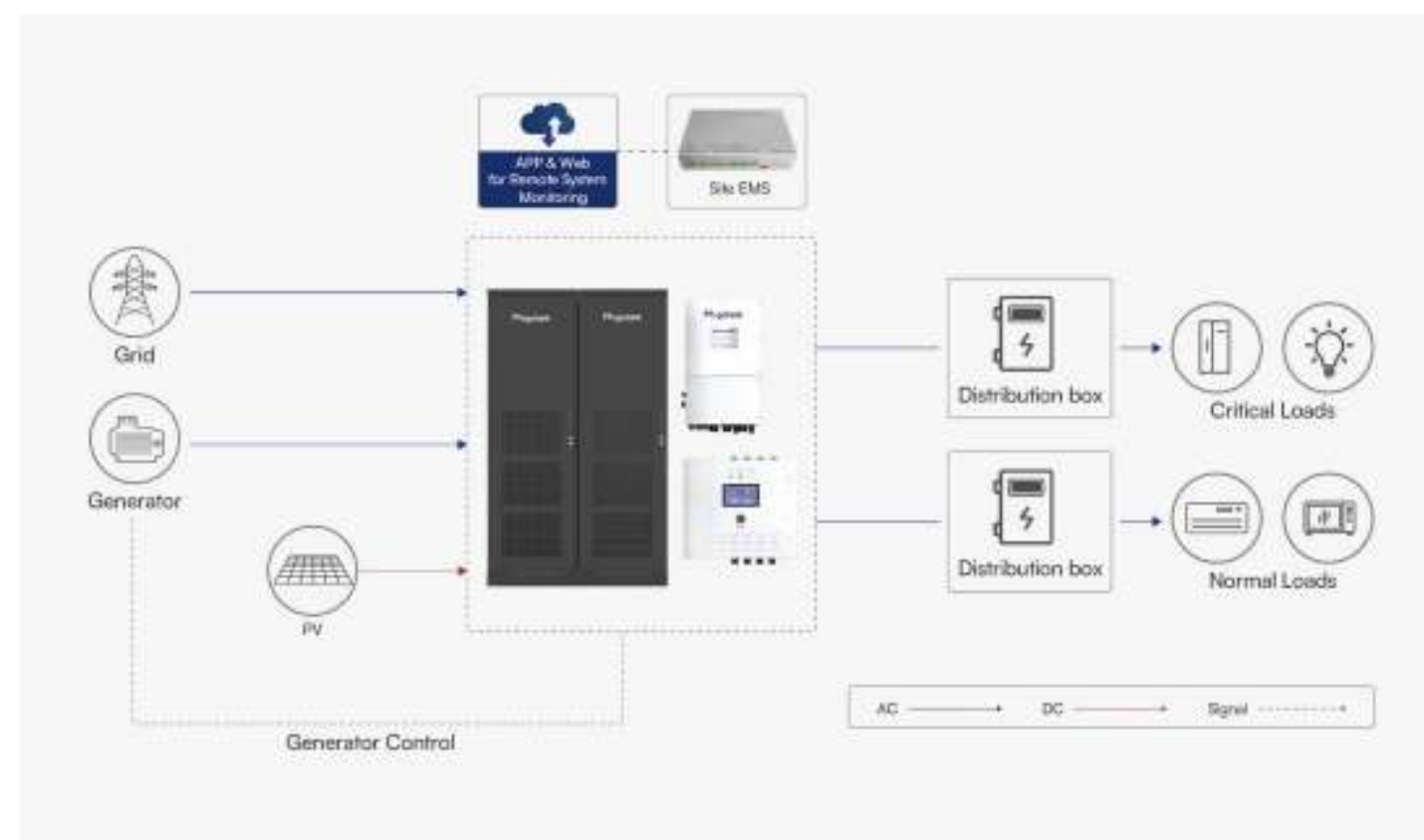
※1: To achieve optimal performance, it is necessary to use it indoors within a temperature range of 15 °C to 35 °C

AC output (Off-grid)	Output rated power	30kW	40kW	50kW
	Max. output apparent power	1.6 times of rated power, 2s		
	On/off grid switching time	<20ms		
	Rated output voltage	3L/N/PE, 220V/380V, 230V/400V		
	Rated output frequency	50Hz/60Hz		
	Rated output current	45.6A/43.3A	60.8A/57.7A	76A/72.2A
	Max. efficiency	97.8%		
Others	Cooling mode	Intelligent fan-cooling		
Power Control Box Specification				
Model No.		YT-MCC50-B01		
AC parameters	Grid voltage	400Vac		
	Rated current	100Aac		
	Rated grid frequency	50Hz/60Hz		
	Rated power	30kW/40kW/50kW		
	Grid access capability	1*400Vac/100A		
	Load access capability	1*400Vac/100A		
General parameters	Work mode	On/off grid, micro-grid, self consumption, peak shaving, dispatch scheduling charging and discharging		
	Cooling mode	Natural-cooling		
	Anti corrosion grade	C3		
	Communication method	RS485, CAN, Ethernet, 4G		
Lithium Battery Specification				
Model No.		YT-DS1100-B01		
Cell capacity		LFP-3.2V/314AH		
Module rated voltage		44.8Vdc		
Module rated energy		14kWh		
Module quantity		7S (Optional: 9S/10S/11S/12S/13S/14S)		
Battery total rated voltage		313.6Vdc (Optional: 403.2V/448V/492.8V/537.6V/582.4V/627.2V)		
Battery total rated energy		98kWh (Optional: 126kWh/140kWh/154kWh/168kWh/182kWh/196kWh)		
Charge / Discharge current		≤157A (0.5C)		
Cycles		≥6000 (25°C 0.5C/0.5C EOL70%)		
Cooling mode		Forced air cooling		
Communication method		RS485, CAN		
Battery Certificate		GB/T 34131, UL 1973, UL 9540A, IEC 62619, UN38.4		

⚡ Battery expansion



⚡ Application



⚡ Installation



All-in-one ESS Solution

Ener Hexon® Solution 239P

100kW | 239kWh | IP20

- For backup power, Micro-grid and commercial ESS indoor applications
- Supports parallel connection for system expansion

Ener Hexon® Solution 239P is an all-in-one Mini Grid/Energy Storage System, integrated with hybrid inverter, BMS, EMS, air-cooling high-voltage battery storage pack, smart temperature control system, a precision suppression and explosion-proof combined fire protection system, as well as cabinet structure and electrical auxiliary equipment to form a high-voltage integrated power supply system, for convenient installation and maintenance.



Highlights

High Performance

- Supports 100% three-phase unbalanced output
- Off-grid switching time based on STS < 20ms
- 200% PV input capacity to maximize solar energy utilization
- Max. 110% overload capability in off-grid mode
- Minimal self-discharge losses
- Charging and discharging currents of up to 200A
- Long lifespan, 6000 cycles at 90% DOD

Flexible & Scalable

- Easily expand system capacity via parallel connections, up to 4 units ※1
- Support multiple working modes
- Support the 15kW to 100kW diesel generators connection, and flexibly support multiple energy supplies
- Maximum 4 MPPTs, input current of 160A string, perfectly matched with high-power photovoltaic modules
- Support flexible PV access methods, DC coupling and AC coupling system transformation and expansion

Simple & Convenient

- Modular installation, the whole set occupies an area of only (1.37+0.9)m²
- LCD screen for an intuitive user experience
- Overall delivery, factory prefabrication, whole machine transportation is convenient for installation and operation and maintenance
- Cabinet-style pre-assembled design enables quick one-day installation

Safe

- Three-level interlocking protection of BMS + EMS + PCS, preventing overcharging, overdischarging and short circuit
- Electrical multi-dimensional protection fusion perception, multi-level circuit breaker protection
- Built-in temperature detection against potential fire hazards

※1: Parallel solution is YT-IDIT200-PV100-B03 plus parallel cabinet, please contact our support team for details.

Specification

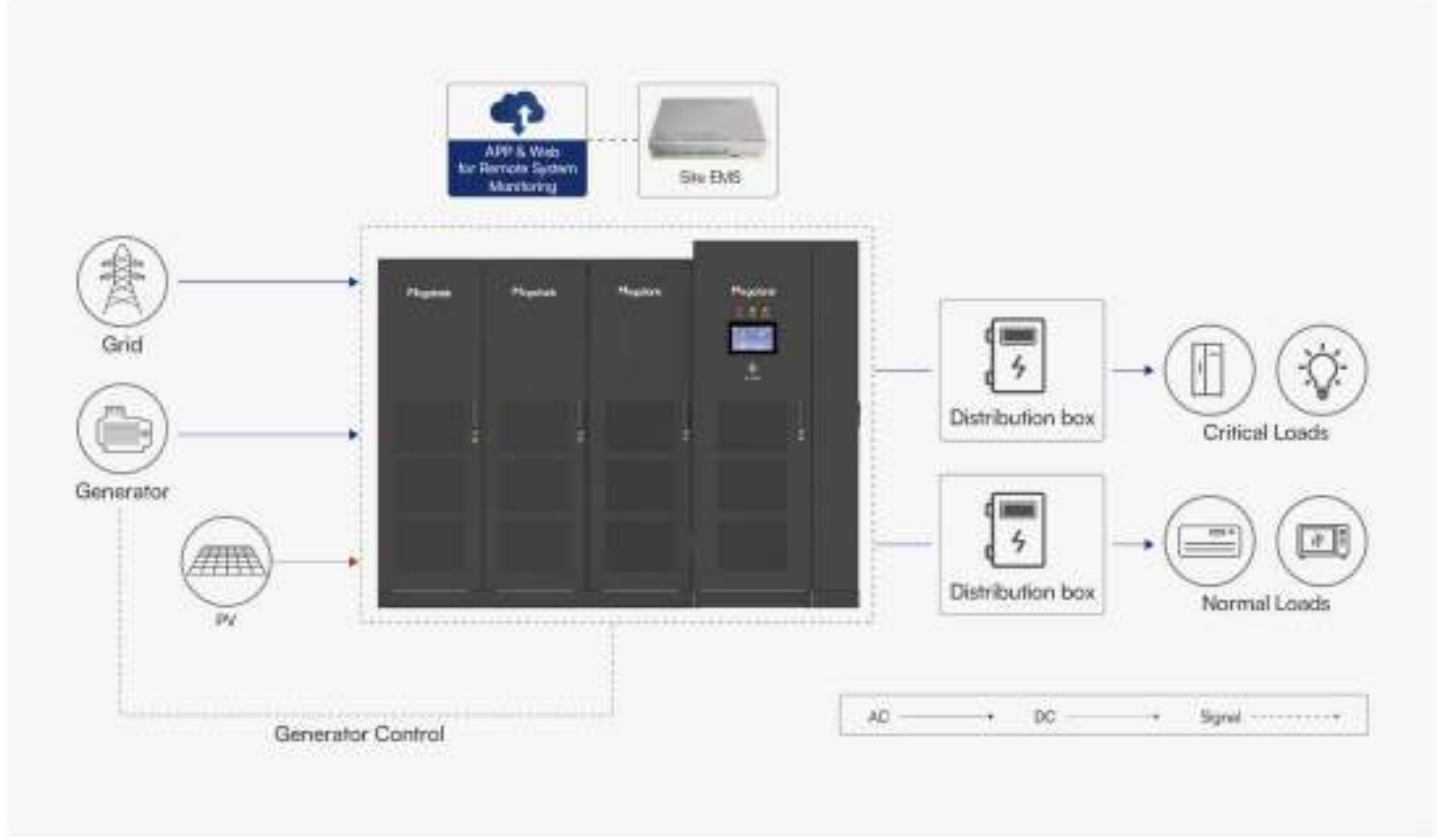
Model		Ener Hexon® Solution 239P	
System parameters			
Nominal Output Power		100kW	
Battery Capacity		239kWh (Optional: 253kWh/267kWh)	
Battery Type		LiFePO4	
IP Protection		IP20	
System Dimension (W×D×H)		900×1000×2000 mm (System cabinet) (570×800×1900)*3 mm (Battery)	
Net Weight		400kg (System cabinet) 770kg + 770kg + 600kg (Battery)	
Operating temperature		Charge: 0~45°C, discharge: -20 – 45°C	
Storage temperature		0~35°C	
Humidity		10~85%RH (Non-condensing)	
Operation altitude		<3000m (>2000m derating)	
Hybrid Inverter Specification			
Model No.		YT-IDIT200-PV100-B01	YT-IDIT200-PV100-B02
DC side (PV)	Max input power	180kW (Optional: Max. 240kW)	
	Starting voltage	200V	
	MPPT voltage range ※2	200~660Vdc	
	Max. PV open circuit voltage	660V (Protect)	
	Qty of MPPT	3 (Optional: 4)	
	Qty of single string MPPT input	1	
AC side (Grid)	Max. input current	160A*3 (Optional: 4)	
	Input apparent power	200kVA	
	Input rated voltage	3L/N/PE, 220V/380V, 230V/400V	
	Rated frequency	50Hz/60Hz	
	Voltage deviation	-15%~+15%	
AC side (Generator)	Max. input current	350A	
	Input apparent power	100KVA	
	Input rated voltage	3L/N/PE, 220V/380V, 230V/400V	
AC output (On/off grid)	Max. input current	152A	
	On/off-grid output rated power	100kW	
	On/off-grid output apparent power	115kW	
	On/off-grid output rated voltage	3L/N/PE, 220V/380V, 230V/400V	
On/off-grid output rated frequency		50Hz/60Hz	

※2: The maximum open circuit voltage of the PV input should be < the minimum voltage of the battery + 30V, Otherwise the machine will shut down.

AC output (On/off grid)	On grid output rated current	151.9A/144.3A
	Power factor	0.99
	On grid THDi (@linear load)	<2%
	Off-grid THDu	<3%
	On/Off grid switching time	<20ms <3s
	Max. efficiency	98.5%
Protection	Anti-islanding protection	Yes
	AC output overcurrent protection	Yes
	AC short circuit protection	Yes
	DC reverse-polarity protection	Yes
	Integrated DC switch	Yes
	Surge protection	DC Type II / AC Type II
Others	Max. allowable phase imbalance (grid & back-up)	100%
	Max. power of each phase	33kW
	Cooling mode	Intelligent fan-cooling
	Communication method	RS485, CAN, Ethernet, 4G

Lithium Battery Specification		
Cell capacity	LFP-3.2V/314AH	
Module rated voltage	44.8Vdc	
Module rated energy	14kWh	
Module quantity	175 (Optional:185/195)	
Battery total rated voltage	761.6Vdc	
Battery total rated energy	239kWh (optional: 253kWh/267kWh)	
Work voltage range	666.4~856.8 Vdc	
Charge / Discharge current	157A (0.5C)	
Cycles	≥6000 (25℃ 0.5C/0.5C EOL70%)	
Cooling mode	Fan cooling	
Battery Certificate	GB/T 34131, UL 1973, UL 9540A, IEC 62619, UN38.4	

⚡ Application



⚡ Installation



ESS All-in-one Cabinet

Ener Hexon™ Solution 1M

500KW/1060KWh/IP54



Ener Hexon™ Solution 1M The product mainly consists of power battery cluster, hybrid photovoltaic storage inverter, variable frequency temperature control system, precise suppression and explosion relief combined fire protection system, electrical auxiliary equipment and its weather-resistant sheet metal cabinets, and is an intelligent digital system comprehensively managed by BMS and EMS.

Highlights

Safety

- It adopts a very early thermal runaway risk warning design concept, integrating detection, fire extinguishing, combustible gas detection, smoke exhaust.
- Intelligent temperature control system, system temperature difference $\leq 5^{\circ}\text{C}$, battery cycle life increased by 12%.
- Electrical multi-dimensional protection fusion perception, multi-level circuit breaker protection.

Minimalism

- All-in-one design, modular installation, single cabinet occupies only 2.2 square meters.
- Hand-in-hand parallel expansion is simple, covering a wide power range of 125kW- 500KW.

Intelligent

- Cloud platform management system, supporting remote/local monitoring, intelligent cloud-based operation and maintenance without the need for expert on-site maintenance.
- Intelligent balancing strategy and system AI early warning ensure the consistency of the battery throughout its life cycle.
- Support black start function, reliable power supply in off-grid/micro-grid mode.
- Grid-to-off-grid switching time <15ms for seamless transition.
- The solar-storage integrated system enables demand control and anti-reverse power flow functionality.

Specification

Product Model	GC1500-1060-B01
PV Input Parameters	
Maximum input power	1000KW
Starting voltage	180 Vdc
Photovoltaic maximum voltage	1000 Vdc
Photovoltaic rated voltage	600 Vdc
MPPT voltage range	180~950 Vdc
MPPT quantity	10*4
Single MPPT input number	2
Maximum input current (per MPPT)	42A*10
Maximum short-circuit current (per MPPT)	60A*10

DC Side Energy Storage Parameters

Rated Energy	1060KWh
Rated Capacity	314 Ah
Rated Voltage	844.8 Vdc
Battery Voltage Range	730~950 Vdc
Rated Charge / Discharge Current	148 A*4
Maximum Charge / Discharge Current	170 A*4
Cycle Life	25°C 0.5C / 0.5C EOL70% > 6000 times

AC Parameters

Rated Output Power	500KW
Maximum Output Apparent Power	Grid-connected 125 kW*4 \ Off-grid 1 50 KW*4(100s) \ Off-grid 1 75 KW*4 (10s)
Rated Input Power	500KW
Rated Grid Voltage	3/N/PE, 380 V / 400 V
Rated Output Current	189.9 A*4
Maximum Output Current	253A*4 (10s)
Rated Output Voltage	3/N/PE, 220 V / 380 V, 230 V / 400 V
Grid Frequency	50Hz/60Hz
Voltage Total Harmonic Distortion	< 2%

AC Input (Generator)

Maximum Input Power	500KW
Rated Input Current	189.9A*4
Rated Input Voltage	3/N/PE,220V/380V;3/N/PE,230V/400 V
Rated Input Frequency	50 Hz/60 Hz

Temperature Control And Fire Protection

Temperature Control Form	Smart air conditioner, smart fan
Fire Extinguishing Agent	Aerosol
Fire Control Form	smoke detectors, temperature detectors, H2 detection, cabin level suppression

General Parameters

Working Mode	Self-use, peak shaving and valley filling, grid-connected/off-grid, etc.
Operating Temperature Range	-20 ~ 50 °C (derating above 45°C)
Storage Temperature	-20 ~ 45 °C
Operating Humidity	5 %~95%
Protection Level	IP54
Working Altitude	3000m (> 2000m derating)
Weight	net weight 2500kg*4, gross weight with packaging about 2600kg*4
Overall Dimensions (W*d*h)	The machine is 1200×1860×2200mm*4, with packaging 1270×1930×2400mm*4
Communication Method	Ethernet, 4G, RS485
Certification	IEC 62619, IEC 61000, UN 38.3

Parallel cabinet

Maximum AC Input Power	500KW
Maximum AC Output Power	500KW
Protection Level	IP54

Installation effect



SYSTEM DIAGRAM



All-in-one ESS Solution

Ener Hexon® Solution 103

50kW | 103kWh | IP54

Ener Hexon® Solution 103 is an all-in-one Mini Grid / Energy Storage System, integrated with 50kW hybrid inverter, BMS, EMS, 103kWh air-cooling high-voltage battery storage pack, smart temperature control system, a precision suppression and explosion-proof combined fire protection system, as well as cabinet structure and electrical auxiliary equipment to form a high-voltage integrated power supply system, for convenient installation and maintenance.



Highlights



Safe

Smart warning ensures energy storage safety and precise temperature control extends product life by **12%**



Simple

Occupying only **1.42m²** of floor space, modular deployment enables rapid installation, while prefabricated components save **15%** in costs.



Smart

Cloud-based smart operation and maintenance, AI-enabled remote monitoring and early warning ensure the full lifecycle of batteries, while multi-mode switching increases revenue.



Expansive

Hand-in-hand parallel expansion, covering a wide power range from **50kW** to **150kW**.

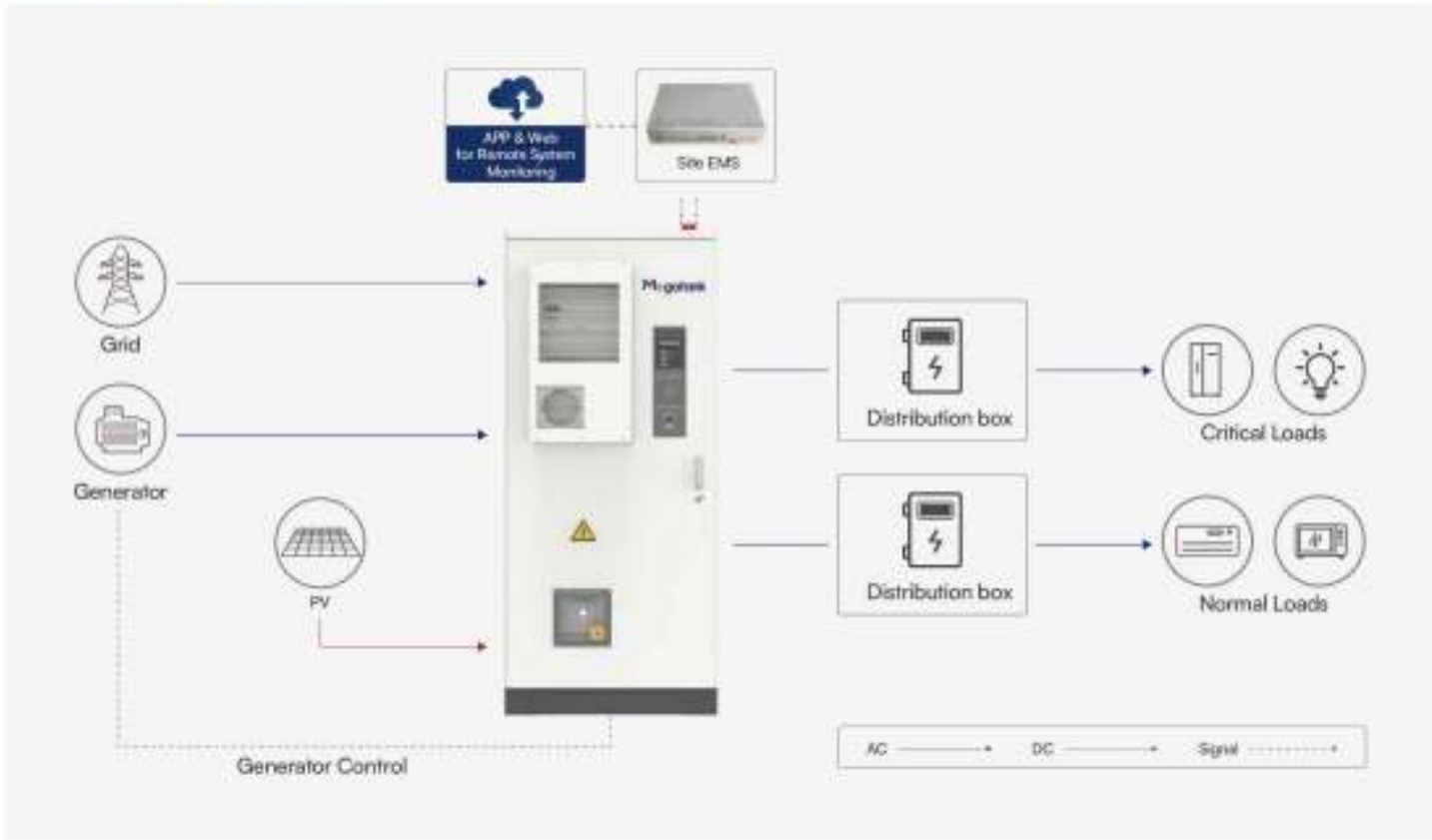
Specification

Model		YT-DS5T103-PV050-B02
PV input	Max. input power	96kW
	Starting voltage	200V
	Max. DC input voltage	1000Vdc
	Rated DC input voltage	630Vdc
	MPPT voltage range	200~850 Vdc
	Qty. Of MPPT	4
	Qty. of single-channel MPPT input channels	2
	Max. input current (Each MPPT)	30A*4
	Max. short circuit current (Each MPPT)	40A*4
ESS	Rated energy	103kWh
	Rated voltage	690Vdc
	Battery voltage range	605~777 Vdc
	Rated charge/discharge current	75A
	Max.charge/discharge current	90A
AC parameters	Rated output power	50kW
	Rated input power	50kW
	Max.output current	75A
	Rated voltage(input&output)	3L/N/PE; 400V
	Grid frequency	50Hz/60Hz
	THD	<3%@ rated power & linear load
	Switching time between on-grid and off-grid modes	<20ms
System parameters	Net weight	1480kg
	gross weight	1570kg
	Dimensions	960*1650*2245 (W*D*H, mm)
	Packing dimension	1030*1720*2400 (W*D*H, mm)
	Communication mode	RS485, Ethernet, 4G
	Operating temperature	-20℃~50℃ (>45℃ derating)
	Storage temperature	-20℃~45℃
	Relative humidity	5~95%, no condensing
	Altitude	3000m (>2000m derating)
	Ingress protection	IP54
	Battery certification	IEC62619, IEC61000, UN38.3
	Inverter certification	IEC61000, IEC62477, IEC62109, EN50549-1

•Product continues to iterate, specifications may be updated without prior notice.

⚡ Application

Micro-grid (single unit)



⚡ Installation site



Micro-grid (Parallel solution: up to 6 units)

