

SMART MICROGRID ESS SOLUTION



• Flexible Expansion

UP to 32 units on-grid in parallel (4MW/8.35MWH)
10 units in off-grid parallel (1.25MW/2.61MWH)

• Intelligent Control

Peak-valley management, anti-back-flow protection, load tracking, demand control

• Reliable Performance

IP54&C3 protection rating, supports operation in -20°C to 50°C

• Convenient Configuration

Free combination of different types of modules such as MPPT, STS, ATS, etc

• Multi-Fusion

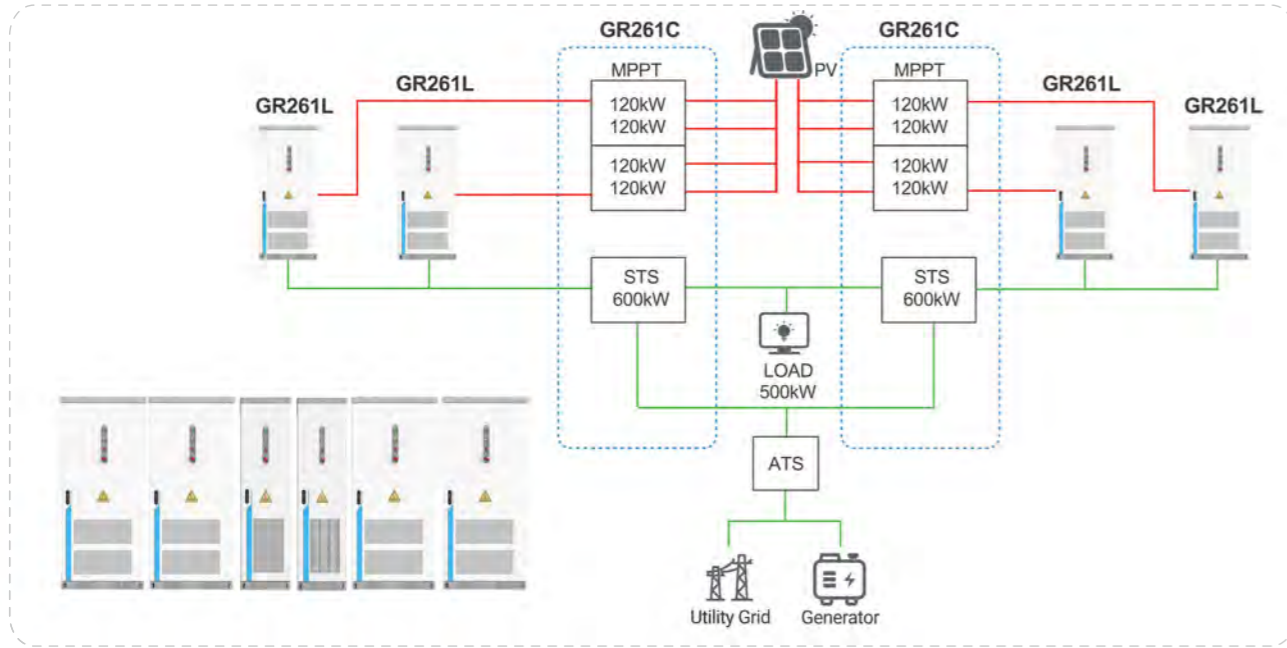
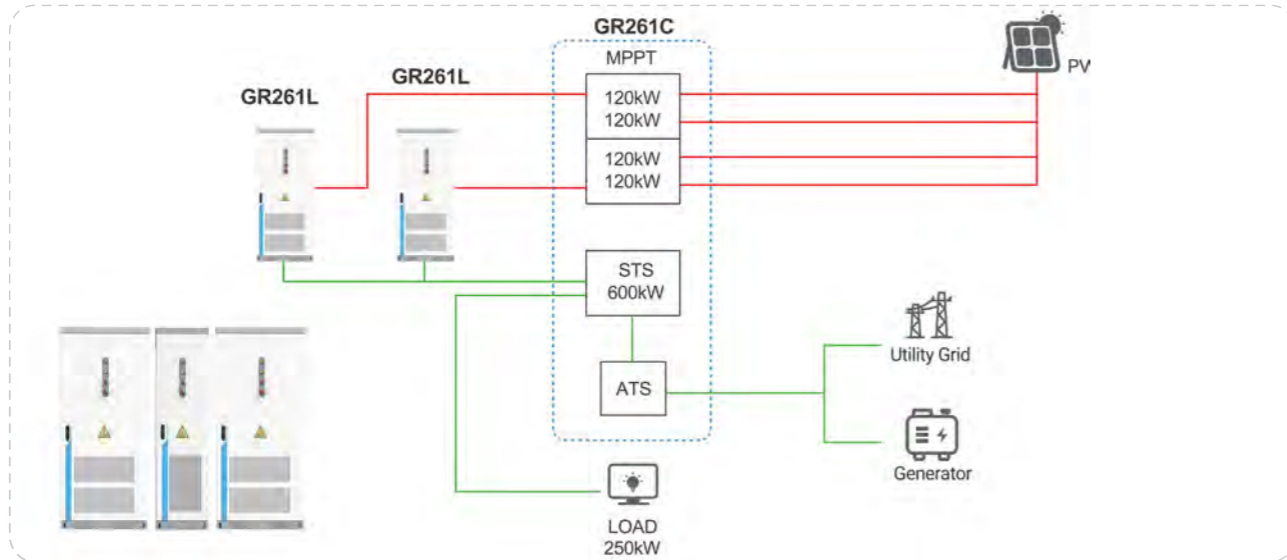
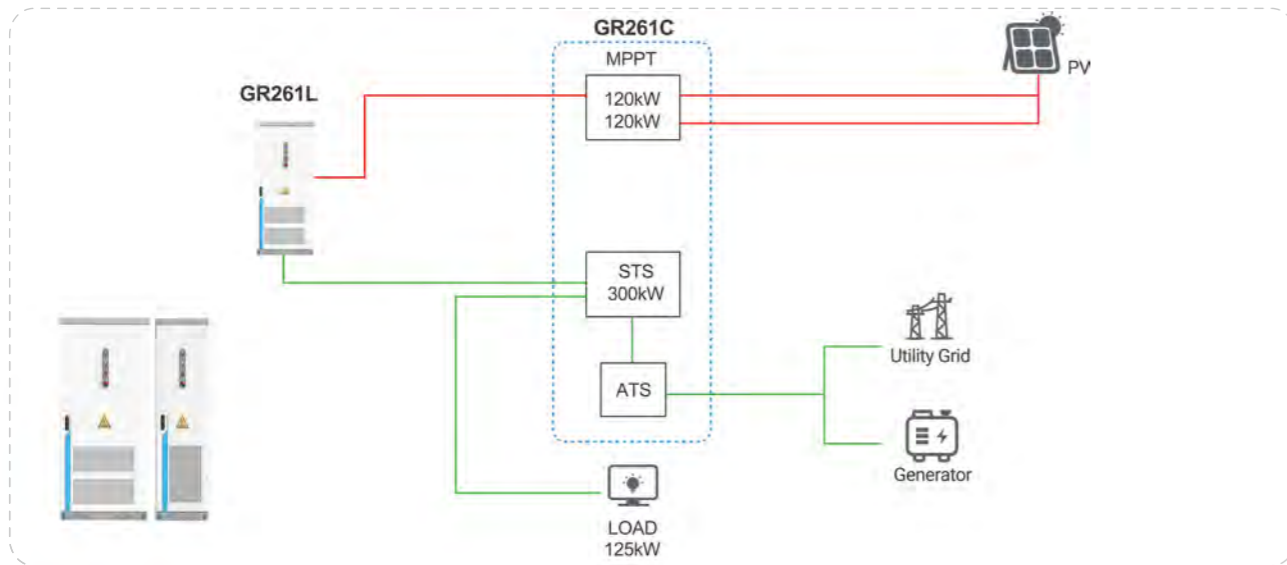
Combines EMS, PCS, and BMS into one system

• Enhanced Safety

Safest LFP battery with an integrated aerosol fire extinguishing system

	500kW/1044kWh	250kW/522kWh	125kW/261kWh
PV Parameters			
MPPT Module	Rated 120kW, 4-channel independent MPPT, each rated 30kW, maximum current per channel 40A		
MPPT Voltage Range	300-1000VDC		
MPPT Rated Voltage	800VDC		
PV Input Power	960kW	480kW	240kW
Battery Parameters			
Cell Type	LFP 314Ah		
Charge/Discharge Power	0.5P		
Rated voltage of battery (per cluster)	832V		
Battery Voltage Range(per cluster)	650V-949VDC		
Maximum DC Current	180A		
Fire Protection System	Cabin grade aerosol, PACK grade perfluorohexane (optional)		
Battery Capacity	1044kWh (4 clusters)	522kWh (2 clusters)	261kWh (1 clusters)
Grid-Connected Parameters			
PCS Rated Power	500kW	250kW	125kW
Maximum Efficiency	98.5%		
Rated input power of the power grid (charging+carrying load)	1000kW	500kW	250kW
Rated Grid Connected Voltage/ Voltage Range	400VAC(340-460VAC); 3L+PE		
Rated Frequency/Frequency Range	50/60Hz (±5Hz)		
THDI	<3% (rated)		
PF	-1~+1		
Off Grid Parameters			
Rated AC Voltage	230V/400VAC; 3L+N+PE		
THDU	<3% (rated)		
Rated Frequency	50/60Hz		
STS Rated Power	1200kVA (2 sets of 600kVA in parallel)	600kVA	300kVA
Transition time from grid connection to off grid connection	<10ms		
Rated AC Output Power	500kW	250kW	125kW
Overload Capacity	<110%Pn 1h; <125%Pn 1min; <150%Pn 30s		
Generator Input	Support (optional ATS module)		
External Communication			
Communication	Ethernet, 4G, CAN		
Remote Control	Cloud EMS, Mobile App		

Optional Solutions



Specifications

GR261L+GR261C		
Battery Capacity		261kWh
PCS Charging and Discharging Power		125kW
STS Module		300kVA
Photovoltaic Input Power		240kW
Rated Input Power		250kW
Load Power		125kW
GR261L*2+GR261C		
Battery Capacity		522kWh
PCS Charging and Discharging Power		250kW
STS Module		600kVA
Photovoltaic Input Power		480kW
Rated Input Power		500kW
Load Power		250kW
GR261L*4+GR261C*2		
Battery Capacity		1044kWh
PCS Charging and Discharging Power		500kW
STS Module		1200kVA
Photovoltaic Input Power		960kW
Rated Input Power		1000kW
Load Power		500kW



GR261L Liquid Cooling Outdoor Energy Storage Cabinet

125kW/261kWh



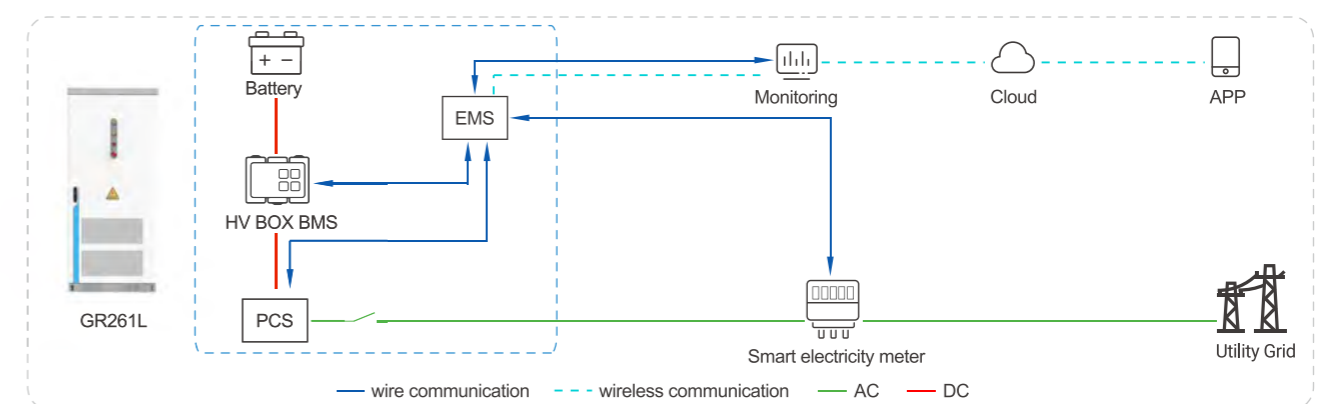
- Highly integrated ESS for easy transportation and O&M
- Modular design supports parallel connection and easy system expansion
- Pack level fire protection, more safer
- Intelligent liquid cooling ensures higher efficiency and longer battery cycle life
- Simple operation and maintenance, remote fault 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



Specifications

DC-Side Parameters	
Cell Type	LFP 314Ah
Battery Capacity (BOL)	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, 100%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
CommunicationInterfaces	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-Corrision 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



GR261C Electrical expansion cabinet



- The rack structure makes it easier to install and combine the modules
- Fully independent develop power module with easy debugging
- Multi-level EMS architecture, cluster-level management + global power regulation



	600KVA	300KVA
PV Parameters		
MPPT Module	Rated 120kW, 4-channel independent MPPT, each rated 30kW, maximum current per channel 40A	
MPPT Voltage Range	300-1000VDC	
MPPT Rated Voltage	800VDC	
PV Input Power	480kW	240kW
Output Voltage Range	200-1000VDC	
Rated Output Voltage	600VDC	
Total Output Current	0-800A	0-400A
Efficiency	>99%	
Grid Side Parameters		
Rated Power On PCS Side	250kW	125kW
Rated Input Power Of the Power Grid (charging+carrying load)	500kW	250kW
Rated Grid Connected Voltage/ Voltage Range	400VAC(340-460VAC); 3L+PE	
Rated Frequency/Frequency Range	50/60Hz (±5Hz)	
THDI	<3%(Rated)	
PF	-1~+1	
Off Grid Parameters		
Rated AC Voltage	230V/400VAC; 3L+N+PE	
THDU	<3%(Rated)	
Rated Frequency	50/60Hz	
STS Rated Power	600kVA	300kVA
Transition Time From Grid Connection to Off Grid Connection	<10ms	
Rated Power On the Load Side	250kW	125kW
Overload Capacity	<110%Pn 1h; <125%Pn 1min; <150%Pn 30s	
Generator Input	Support (optional ATS module)	
Communication	Ethernet, 4G, CAN	
Remote Control	600*2300*1380mm	
Dimension(W*H*D)	EMS, APPCloud EMS, mobile app	
Weight	580kg	450kg

300KVA STS



STS Parameters	
Grid Side Rated Power	300kW
Grid Side Rated Current	460
PCS Side Rated Power	125kW
AC Load Power	125kW
Grid Rated Voltage	380V/400V
Grid Voltage Range	±15%
Grid Rated Frequency	50/60Hz
Grid Frequency Range	±5Hz
Long-term Overload Capacity	110%(temperature<40°C)
Switching Time of On-Grid to Off-Grid	<10ms
Wiring Method	Three-phase five-wire
Maximum Efficiency	0.995
Topology	Non-isolated
IP Rating	IP20
Operating Temperature Range	-20~ 50°C(>45°C derating operation)
Storage Temperature Range	-20~70°C
Relative Humidity	0~95%(Frost-free)
Cooling Mode	Intelligent fan cooling
Noise	<70dB
Display	LED
Communication	RS485/CAN/DI/DO
Weight	28kg
Dimension(W*H*D)	482.6*530*175mm (Excluding handle and terminal height)
Installation	Modular rack installation

600KVA STS



STS Parameters	
Grid Side Rated Power	600kW
Grid Side Rated Current	909
PCS Side Rated Power	250kW
AC Load Power	250kW
Grid Rated Voltage	380V/400V
Grid Voltage Range	±15%
Grid Rated Frequency	50/60Hz
Grid Frequency Range	±5Hz
Long-term Overload Capacity	110%(temperature<40°C)
Switching Time of On-Grid to Off-Grid	<10ms
Wiring Method	Three-phase five-wire
Maximum Efficiency	0.995
Topology	Non-isolated
IP Rating	IP20
Operating Temperature Range	-20~50°C(>45°C derating operation)
Storage Temperature Range	-20~70°C
Relative Humidity	0~95%(Frost-free)
Cooling Mode	Intelligent fan cooling
Noise	<70dB
Display	LED
Communication	RS485/CAN/DI/DO
Weight	56kg
Dimension(W*H*D)	482.6*540*225mm(Excluding handle and terminal height)
Installation	Modular rack installation

120kW MPPT



MPPT Parameters	
PV Input	
Input Voltage Range Per MPPT	300-1000VDC
Input Current Per MPPT	0-40A
Full Load DC Range	800VDC
Inrush Starting Current	≤50A
DC Output	
Output Voltage Range	200~1000VDC
Rated Output Voltage	600VDC
Single Output Current	0-50A
Total Output Current	0-200A
Total Output Power	120kW
Maximum Efficiency	≥99%
Startup Boot Time	<15s
Output Rise Time	<2s
Turn On and Off Overshoot Amplitude	±5%Vo
Output Parallel Current Imbalance	≤5%
Work Environment	
Operating Temperature	-20°C ~ 50°C
Storage Temperature	-40°C ~ 70°C
Operating Humidity	5-95% (Frost-free)
Storage Humidity	5-95% (Frost-free)
Altitude	≤4000M
Cooling Mode	Fan cooling
IP Rating	IP20
Dimension(W*H*D)	482.6*85*559.5mm(Excluding handle and terminal height)
Weight	23kg

125kW PCS



PCS Parameters	
DC-Side Parameters	
Maximum Input Voltage	975Vdc
Minimum Input Voltage	630Vdc
Full Load DC Range	660-975Vdc
Maximum Charging Current	185A
Rated Discharge Current	166A
Maximum Discharge Current	232A
Maximum DC Output Power	153kW
AC-Side Parameters	
Rated Active Power	125kW
Rated Apparent Power	125kVA
Grid Connected Voltage	400V
Grid Connected Voltage Range	320-480V
Rated Frequency	50/60Hz
Rated Grid Connected Current	180.4A
Maximum Long-Term Overload Current	198.4A
Short Term Overload Current	216.5A
Wiring Method	3L+PE
THDI	<3% (Rated)
Off-Grid Parameters	
Rated Active Power	125kW
Rated Apparent Power	125kVA
Rated Voltage	400V (rated line voltage)
Rated Frequency	50/60Hz
Rated Current	180.4A
Overload Capacity	<110%Pn 1h ; <125%Pn 1min ; <150%Pn 30s
Wiring Method	3L+N+PE
THDU	<3% (Rated)
Dimension(W*H*D)	480*221*630(Excluding handle and terminal height)
Weight	49kg