

# High Voltage Battery Energy Storage

C&I BESS

- MAX 15PCS PARALLEL
- COMMUNICATION
- OEM/ODM
- HIGH VOLTAGE MATCHING



## Why Grace High Voltage BESS?

- High-performance LFP cells with long life
- Smart BMS with active balancing for cell protection
- Modular & parallel expandable architecture
- Fast charging & high usable depth of discharge
- Multiple communication options for Inverter/PCS & EMS integration

## Typical Applications:

- Micro grid Application
- Integrated power quality management in distribution areas.
- Distribution capacity increase
- Hotels / Resorts / Farm house
- DG Set replacement
- Backup power supply & EV Charging solutions.

Grace  
BESS

## High Voltage Battery Energy Storage (C&I BESS)

Model Name	GRE-ESS-CI24	GRE-ESS-CI135
<b>DC Parameter</b>		
Cell Type	LFP (3.2V100Ah)	LFP (3.2V314Ah)
Battery Pack Configuration	1P15S/15kWh	1P15S/15kWh
Battery System Configuration	1P75S (5*1P15S)	1P135S (9*1P15S)
Rated Battery Voltage	240V	432V
Battery Voltage Range	210V–270V	378V–486V
Nominal Capacity (kWh)	24 kWh	135.6kWh
Number of life Cycles	≥3500	≥6000
Depth of discharge (Max/recommended)	100%/90%	
Rated Power	12 kW	67kW
Charge and Discharge Rate	≤0.5P	
Protection Level	IP54	
Heat Management	Natural cooling	
Operating temperature range	-20°C~50°C (>45°C need to derating)	
Operating humidity range	0~95% (no condensation)	
Storage temperature range	-30°C~60°C	
Altitude	≤2000m	
Noise	<75dB	<80dB
Weight (Kg) Approx.	700 kg	1600kg
Size (Width * Depth * Height) mm Approx.	759*650*1300	1200*800*1700
Cable Entry Mode	cables enter and exit from the bottom	
Communication Interface	RS485/Ethernet/CAN	
Communication Protocol	Modbus RTU/Modbus TCP	
All in one Solutions- Inbuilt PCS	Yes	

## High Voltage Battery Energy Storage (C&I BESS)

Model Name	GRE-BESS-CI-418-DC Block	GRE-BESS-CI-261-All in one
<b>DC Parameter</b>		
Cell Type	LFP (3.2V314Ah)	LFP (3.2V314Ah)
Battery Pack Configuration	1P52S/52.25kWh	1P52S/52.25kWh
Battery System Configuration	1P416S (8*1P52S)	1P260S (5*1P52S)
Rated Battery Voltage	1331.2V	832V
Battery Voltage Range	1164.8–1518.4V	728V–936V
Nominal Capacity (kWh)	418kWh	261.25kWh
Discharge Depth (Max/recommended)	100%/90%	
<b>AC Parameter (PCS)</b>		
Rated Power	125kW	125kW
Maximum Output Power	137.5kW	137.5kW
Rated Grid Voltage	400V	400V
Allowable Grid Voltage	~15%~10%	~15%~15%
Rated Grid Frequency	50Hz/60Hz	
Power Factor Range	-1 (look-ahead) ~1 (hysteresis)	
AC Current Harmonics	<3%	
AC Access Mode	Three-phase and three-wire	
Charge and Discharge Conversion Time	<100ms	
<b>System Parameter</b>		
System Efficiency	>88%	
Isolation Mode	Non-isolated	
Charge and Discharge Rate	≤0.5P	
Number of Cycles	6000	
Protection Level	IP54	
Heat Management	Liquid cooling	
Fire protection system	fire-fighting host+Multi-in-one detector+Perfluorohexanone extinguishing agent+water fire-fighting (optional)	
Operating temperature range	-20°C~50°C (>45°C need to derating)	
Operating humidity range	0~95% (no condensation)	
Storage temperature range	-30°C~60°C	
Altitude	≤3000m (2000m need to derating)	
Noise (dB)	<75	<80
Weight (Kg)	3200	2800
Size (Width * Depth * Height) mm	1480x1360x2400 Approx.	1480x1350x2205 Approx.
Cable Entry Mode	cables enter and exit from the bottom	
Communication Interface	RS485/Ethernet/CAN	
Communication Protocol	Modbus RTU/Modbus TCP	