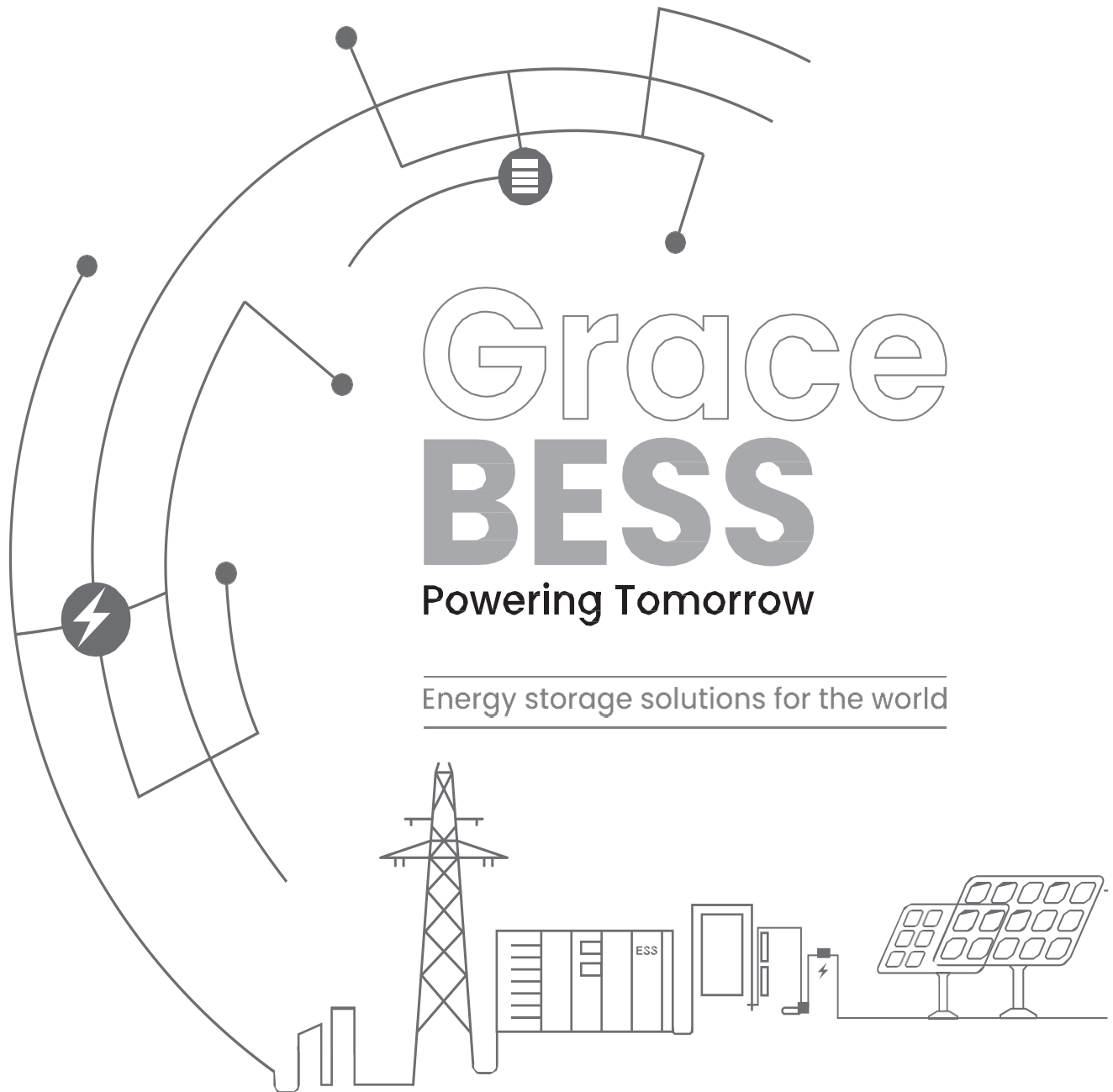




Low Voltage Battery Energy Storage

—
BESS All in One Solutions

-  PARALLEL
-  MODULAR
-  COMMUNICATION
-  OEM/ODM



WHY GRACE LOW VOLTAGE BESS?

- High-performance LFP cells with long life
- High usable depth of discharge
- Compact design for wall mount installation

TYPICAL APPLICATIONS

- Residential Solar Storage
- Small & Medium Commercial Buildings
- Farm house
- Hotels / Resorts

Grace
BESS

Low Voltage Battery Energy Storage (BESS All in One Solutions)

MODEL	GB01KVA	GB02KVA
Capacity (VA)	1100	2000
Full Load (W)	800	1600
DC Voltage (V)	12.8	25.6
Battery Type	LFP 1280 WH (12.8V100Ah)	LFP 2560 WH (25.6V100Ah)
Input:		
Input Voltage Range Inverter (V)	100-290	
Input Voltage Range UPS (V)	180-270	
Frequency	50 HZ+/-2Hz	
Transfer Time UPS Mode	<10 MS	
Output:		
Output Voltage (V)	230	
Frequency (Hz)	50	
Waveform	Pure Sine Wave	
Battery Charging (A)	15	
Weight (Kg) Approx.	24	38
Dimension (LxWxH) (Mm)	275 x 230 x 225	300 x 250 x 400
Protections	Overload, Under voltage, Over voltage, Battery low, Overcharge, Over temperature	
Enviromental & Operating Conditions:		
Charging Temperature Range	0°C to 55°C (Recommended ≤50°C)	
Discharging Temperature Range	-20°C to 55°C	
Relative Humidity	<85% RH, non-condensing	
Storage Temperature	-10°C to 45°C (Recommended)	
Cooling	Natural / forced air cooling, ensure proper ventilation	
Operating Altitude (Mm)	<2000 (derating above this)	
IP Rating	IP20 (indoor use)	

Low Voltage Battery Energy Storage

BESS Rack & Wall Mount

- MAX 15000 PARALLEL
- MODULAR
- COMMUNICATION
- OEM/ODM



What can Grace Batteries do?

- Store excess solar energy for night-time use
- Provide uninterrupted backup during grid outages
- Reduce diesel generator runtime and fuel cost
- Compact design for wall, rack, or floor installation
- Enable self-consumption maximization

Typical Applications:

- Residential solar energy storage & backup
- Small commercial & office power backup
- Peak load management & energy cost reduction
- Telecom & networking equipment backup
- Microgrid & off-grid power systems
- UPS integration for critical loads (IT, healthcare, retail)

Grace
BESS

Low Voltage Battery Energy Storage (BESS Rack & Wall Mount)

Model Name	GRE48V/51.2V100AH	GRE48V/51.2V230AH	GRE48V/51.2V314AH
Nominal Voltage (V)	48/51.2	48/51.2	48/51.2
Capacity (Ah)	100	230	314
Capacity (kWh)	4.8/5.12	11.04/11.78	15.07/16.08
No. of cell in series	15/16	15/16	15/16
No. of cell in parallel	1	1	1
Cell Type	Prismatic, 100Ah	Prismatic, 230Ah	Prismatic, 314Ah
Chemistry	LFP	LFP	LFP
BMS Type	Smart	Smart	Smart
Maximum cut-off voltage (V)	54.75(±1.5)/56 (±1.5)	54.75(±1.5)/56 (±1.5)	54.75(±1.5)/56 (±1.5)
Minimum cut-off voltage (V)	42(±1.5)/44 (±1.5)	42(±1.5)/44 (±1.5)	42(±1.5)/44 (±1.5)
Charging Voltage (V)	54.75/56	54.75/56	54.75/56
Recommended charging current (A)	30	69	94.2
Maximum charging current (A)	50	115	157
Recommended discharging current (A)	50	115	157
Maximum Continuous discharging current (A)	100	230	314
No. of Packs in parallel	15	15	15
Cycle Life (80% DOD, 25°C, 0.5C/0.5C)	≥3000	≥4000	≥8000
Cell Over Voltage Protection	3.65	3.65	3.65
Cell Over Voltage Release	3.5	3.5	3.5
Cell Over Voltage Protection	2.7	2.7	2.7
Cell Under Voltage Release	2.8	2.8	2.8
Cell under voltage protection	Yes	Yes	Yes
Cell over voltage Protection	Yes	Yes	Yes
Over current protection	Yes	Yes	Yes
Short circuit protection	Yes	Yes	Yes
Temperature protection	Yes	Yes	Yes
Ingress protection	IP20	IP20	IP20
Dimension (LXWXH) (MM) Approx.	490X483X1500	428X270X721	428X270X851
Power Connector	2 Pole Connector	2 Pole Connector	2 Pole Connector
Weight (kg) (Approx.)	49/51	95/100	125/130
Communication Connector	CAN/RS485/Bluetooth	CAN/RS485/Bluetooth	CAN/RS485/Bluetooth
MCB	YES	YES	YES
Forms Available In	Wall Mount/Rack Mount/Wheel Loaded		

Lead Acid Replacement

- 📦 SPACE SAVING
- 📶 SMART BLUETOOTH
- 🔋 LONGER LIFE
- 📦 HIGHER DISCHARGE CAPACITY



Why Grace Lead Acid Replacement BESS?

- Higher efficiency & longer cycle life than traditional lead-acid batteries
- Compact design with higher energy density (saves space)
- Fast charging & deeper discharge capability
- Zero maintenance with advanced BMS protection
- Lower lifetime cost & better ROI
- Safer, cleaner & eco-friendly energy solution

Typical Applications:

- UPS & backup power systems
- Solar energy storage (residential & commercial)
- Inverter battery replacement for homes & offices

Lead Acid Replacement

Model Name	GRE12.8V100AH	GRE25.6V100AH
Nominal Voltage (V)	12.8	25.6
Capacity (Ah)	100	100
Capacity (kWh)	1.28	2.56
No. of cell in series	4	8
No. of cell in parallel	1	1
Total No. of cell	4	8
Cell Type	Prismatic, 100Ah	
Chemistry	LFP	
BMS Type	Smart	
Maximum cut-off voltage (V)	14.6	29.2
Minimum cut-off voltage (V)	11.2	22.4
Charging Voltage (V)	14.6	29.2
Recommended charging current (A)	30	
Maximum charging current (A)	50	
Recommended discharging current (A)	50	
Maximum Continuous discharging current (A)	100	
Cycle Life (80% DOD, 25°C, 0.5C/0.5C)	≥3500	
Cell Over Voltage Protection	3.65	
Cell Over Voltage Release	3.5	
Cell Over Voltage Protection	2.7	
Cell Under Voltage Release	2.8	
Cell under voltage protection	Yes	
Cell over voltage Protection	Yes	
Over current protection	Yes	
Short circuit protection	Yes	
Temperature protection	Yes	
Ingress protection	IP20	
Dimension (LXWXH)mm	(120x180x185)	(250X230X180)
Power Connector	2 Pole Connector	
Weight (kg)	14 (Approx.)	26.5 (Approx.)
Communication Connector	UART (Display)	

High Voltage Battery Energy Storage

Rack Mount BESS

- 📦 SPACE SAVING
- 🔧 HIGHLY CONFIGURABLE
- 🔧 EASY O&M
- 🏠 INDOOR/OUTDOOR



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 (BESS Rack Mount)

Model Name	GB-MD-HV-51100-RM	GB-MD-HV-51230-RM	GB-MD-HV-51314-RM
General Parameter			
Chemistry	LFP	LFP	LFP
Nominal Voltage(V)	51.2	51.2	51.2
Capacity (Ah)	100	230	314
Configuration	16S1P	16S1P	16S1P
Specific Energy (KWh)	5.12	11.77	16.07
Cycle Life	>3000 at 85% DOD	>4000 at 85% DOD	>8000 at 85% DOD
Electrical Characteristics			
Cell Balancing	Yes	Yes	Yes
Charging Mode	CC-CV	CC-CV	CC-CV
Charge Current(A)	30	70	140(0.5C)
Max Charge Current(A)	50	115	157(0.5C)
Discharge Current(A)	50	115	157(0.5C)
Max Discharge Current(A)	100	184	314(1C)
Peak Discharge Current(A)	120	200	628(2C) for 2 sec.
Voltage Range(V)	50.4~55.2	50.4~55.2	44.8~56.8(90% DOD)
Over temperature protection in discharging mode (°C)	65°	65°	65°
Over temperature protection recovery in discharging mode (°C)	50°	50°	50°
Over temperature protection in Charging mode (°C)	55°	55°	55°
Over temperature protection recovery in discharging mode (°C)	40°	40°	40°
Efficiency	>=98%	>=98%	>=98%
Connector Type	ESS 2P CONNECTORS	ESS 2P CONNECTORS	ESS 2P CONNECTORS
Mechanical Characteristics			
Operating Temperature (°C)	-10°--40°	-10°--40°	-10°--40°
Storage temperature	0°--35°	0°--35°	0°--35°
Dimensions (LxWxH) MM	540X470X180	582X500X250	582X500X250
Protections			
Under Voltage Protection level(V)	3.15	3.15	2.8
Under Voltage protection recovery level(V)	3.2	3.2	2.9
Over Voltage protection level(V)	3.45	3.45	3.55
Over Voltage protection recovery level(V)	3.35	3.35	3.45
Charging Over Current Protection(A)	60	60	140
Discharging over current Protection(A)	150 FOR 5 SECS	250 FOR 5 SECS	628 FOR 5 SEC
Output short circuit Protection	Yes	Yes	Yes
Cell temperature protection in discharging mode	Yes	Yes	Yes
Ingress Protection(Available)	IP54	IP54	IP54

High Voltage Battery Energy Storage

C&I BESS

-  SPACE SAVING
-  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
DC Parameter		
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	≤0.5C	
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	GB-CB-HV-418-AIO	GB-CB-HV-261-AIO
DC Parameter		
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%	
AC Parameter (PCS)		
Rated Power	215kW	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	
System Parameter		
System Efficiency	>88%	
Isolation Mode	Non-isolated	
Charge and Discharge Rate	≤0.5C	
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	

High Voltage Battery Energy Storage

Utility BESS

- MAX 15PCS PARALLEL
- EASY O&M
- COMMUNICATION
- OEM/ODM



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 & EMS integration

Typical Applications:

- Microgrid 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 (Utility BESS)

Model Name	GB-CT-HV-3344-CB	GB-CT-HV-5015-CB	GB-CT-HV-6251-CB
DC Side			
Nominal Capacity (kWh)	3344 kWh	5015.96 kWh	6251.3 kWh
Cluster Configuration	1P416S*8	1P416S*12	1P416S*8
Rated Voltage	1331.2V	1331.2V	1331.2V
Operating Voltage Range	1075.2 V- 1363.2 V	1075.2 V- 1363.2 V	1123.2 V- 1497.6 V
Rated Power	1600 KW	2500 KW	3125.6 KW
All in one Solutions- Inbuilt PCS	No	No	No
Rated Charge/discharge Rate	0.5C		
Cycle Life	6000 cycles (70% SOH, 0.5C/0.5C, 25°C)		
Cell Specification	3.2V/314Ah		3.2V/587Ah
Cooling Mode	Liquid Cooling		
Cell Chemistry	Lithium Iron Phosphate (LFP)		
Fire Extinguisher	FK-5112/Aerosol Fire Suppression System + Water Fire Fighting		
Detector Type	Temperature, Smoke, Combustible Gas		
Protection			
Over-Voltage Protection	Yes		
Under-Voltage Protection	Yes		
Over-current Protection	Yes		
Short-circuit Protection	Yes		
System Data			
Operating Temperature Range	-30 to +50°C		
Relative Humidity	0~95%RH (Non Condensing)		
Noise	<80DB		
Dimensions (W*D*H)mm	2438*6058*2896		
Weight	31T	42T	49T
Protection Degree	IP55		
Max. Operating Altitude	< 2000m		
Communication Interface	CAN, Ethernet, RS485		
Communication Protocol	Modbus TCP/RTU, IEC61850		
Self-discharge	≤3%/Month (Fully charged, shut down)		



Website

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Images are subject to change without prior approval