SBE Cabinet | LFP | 125 kW / 258-1,032 kWh

LITHIUM-ION BATTERY ENERGY STORAGE SYSTEM



Power Rating:

125 kW

Energy Rating:

258 - 1,032 kWh

Enclosure Style:

Outdoor rated cabinet



Codes and Standards



UL 1642



UL 1973



UL 9540A



UL 1741 SB



UL 9540



CSA 22.2



UN 38.3



IEEE 1547



NFPA 855



NFPA 68

The Generac Solution

Energy management today means balancing a combination of carbon reduction, energy savings, and energy resilience goals. Generac's SBE Cabinet is our latest addition to a portfolio of products and technologies helping commercial and industrial (C&I) customers to meet their current and future energy goals.

SBE energy storage systems enable C&I customers to:

- Reduce peak demand charges and save on energy costs.
- Pair with on-site solar and lower both carbon footprint and energy costs.
- Provide site resilience during brownouts/ power quality issues, back up critical loads during shorter duration blackouts, and pair with our line of gas and diesel generators for full facility resilience during long-duration blackouts.
- Earn additional revenue by monetizing the asset to support broader grid resilience.



Modular and scalable using common building blocks



• Controls - Unit & Microgrid

Controls Cabinet

- Fire alarm control panel (preinstalled, NFPA 855 compliant)
- · Connectivity & Monitoring
- Auxiliary power equipment
- UPS

DC Cabinet

- Up to 344 kWh/cabinet
- · LFP, Liquid cooled
- · Aerosol fire suppression
- Smoke detector
- · Emergency-Stop
- Dehumidification

Inverter Cabinet

- Bi-directional inverter
 - Grid following and forming capability
- Tamper proof enclosure
- DC combiner (for multiple DC Cabinets)

2x DC Cabinet configuration with 125 kW inverter shown above

BESS SPECIFICATIONS

425 IdW Investor		1x DC Cabinet	2x DC Cabinets	3x DC Cabinets							
125 kW Inverter	125kW/258kWh 125kW/301kWh 125kW/344k		125kW/344kWh	125kW/688kWh	125kW/1,032kWh						
Power	125 kW										
Nameplate DC energy	258 kWh	301 kWh	344 kWh 688 kWh 1,032 kWh								
DC voltage range	806-1,037 VDC	941-1,210 VDC	1,075-1,382 VDC								
DC Nominal voltage	921.6 VDC	1,075.2 VDC	1,228.8 VDC								
AC connection	3-wire (3P3W)										
Nominal AC Voltage	480 V										
Frequency	60 Hz										
Overload capacity	120%, 10s										
Power factor	Full 4-quadrant operation										
Inverter efficiency	Up to 98.7%										
Operating temperature	-4 °F to 122 °F -20 °C to 50 °C										
Altitude before derate	3,280 ft (1,000 m)										
Noise	<70 dB @ 3.3 ft (1 m)										
Dimensions (WxDxH)*	(6.9' x 4.4' x 7.5' 2.1 m x 1.3 m x 2.3 m	11.2' x 4.4' x 7.5' (3.4 m x 1.3 m x 2.3 m)	15.6' x 4.4' x 7.5' (4.8 m x 1.3 m x 2.3 m)							
Weight (approx.)	7,200 lb (3,270 kg)	7,860 lb (3,570 kg)	8,530 lb (3,870 kg)	16,190 lb (7,350 kg)	23,690 lb (10,750 kg)						

^{*}Approximate dimensions; for multiple DC Cabinets, width assumes minimum required spacing of 30 mm between DC Cabinets.

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LITHIUM-ION BATTERY ENERGY STORAGE SYSTEM



ENCLOSURE

· Forklift pockets

· Lifting eyebolts

STANDARD FEATURES

CONTROLS

· Battery (unit) controller

ELECTRICAL SYSTEMS

- · Ground fault monitoring
- BESS control panel
- · Auxiliary power equipment

BIDIRECTIONAL INVERTER

- Dynamic transfer
- · Grid forming
- Grid following
- 4 quadrant operation
- THD < 2%
- · Load imbalance capable

FIRE PREVENTION AND SUPPRESSION SYSTEM

- Aerosol fire suppression
- · Smoke detector
- NFPA 68 compliant: deflagration panels
- · Audible/visual alarms
- Fire alarm control panel
- · Door mounted Emergency-Stop
- UPS capable of 24 hours in standby and 2 hours in alarm

OPTIONS

EMS & MICROGRID COMPONENTS

- EMS & Microgrid controller (MGC)
- Protective relay cabinet (PRC / SEL-751)
- Load control center (LCC)
- Generator connect cabinet (GCC)
- · Revenue meter cabinet (RMC)

ELECTRICAL SYSTEMS

Isolation transformer

CONTROLS CABINET

- HMI screen
- HVAC for up to 122 °F (50 °C) ambient temperature rating

O&M

- Extended warranty up to 15-years
- · Long-term service contract

CONTROL SYSTEM

USE CASES (WITH MGC)

- Peak shaving
- Arbitrage
- Backup power
- Black start
- · Renewable energy shifting
- Voltage regulation
- · Frequency response
- Grid forming off-grid

FEATURES

- · Local data server
- · Cloud based monitoring
- Multilevel authentications for security operation
- · Data acquisition and control functions
- · Event reporting
- · Ramp rate control demand management
- · Modbus TCP
- CAN
- Ethernet-based communication
- Compatibility with 3rd party EMS, SCADA systems

PRODUCT MATRIX

	1x DC Cabinet		2x DC Cabinet		3x DC Cabinet		4x DC Cabinet		5x DC Cabinet			6x DC Cabinet						
	Nameplate Energy capacity (kWh)																	
Power (kW)	258	301	344	516	602	688	774	903	1032	1032	1204	1376	1290	1505	1720	1548	1806	2064
125	2 hour	2hour	2hour	4hour	4 hour	5 hour	5 hour	6 hour	7hour									
140		2hour																
250				2hour	2 hour		3 hour	3 hour		4hour	4hour		5 hour	5 hour				
400							2 hour	2 hour										
500								2 hour	2hour	2hour	2hour	2hour	2hour	3 hour		3hour	3hour	
600												2hour						
750															2hour			
1000																		2hour

Product images are for reference only and are subject to change based on product improvements and updates.

Contact Generac for a one stop solution to integrate our line of generators with our SBE battery system.

Contact Generac for partner(s) referral regarding on-site Engineering/Procurement/Construction (EPC) services.

SPEC SHEET