# 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
- 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 inverterGrid 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**

125 kW Inverter	1x DC Cabinet			2x DC Cabinets	3x DC Cabinets			
	125kW/258kWh	125kW/301kWh	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.)	7,480 lb (3,400 kg)	8,140 lb (3,700 kg)	8,810 lb (4,000 kg)	16,470 lb (7,470 kg)	23,970 lb (10,870 kg)			

<sup>\*</sup>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

## STANDARD FEATURES

#### **CONTROLS**

· Battery (unit) controller

#### **ELECTRICAL SYSTEMS**

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

#### **BIDIRECTIONAL INVERTER**

- · Dvnamic 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

## · Lifting eyebolts

#### 0&M

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

## **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

#### **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

## **PRODUCT MATRIX**

	1x DC Cabinet			2	3	4	5	6		
	Nameplate Energy capacity (kWh)									
Power (kW)*	258	301	344	688	1032	1376	1720	2064		
125	2hour	2hour	3 hour	5 hour	8 hour					
250				3 hour	4 hour	5hour	7hour	8 hour		
500					2hour	3hour	3hour	4hour		
750							2hour	3hour		
1000								2hour		

<sup>\*</sup>Power ratings between 250-1000 kW are also allowable; max C-Rate: 0.5C

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.

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