

Power Rating:
250 – 1,000 kW

Energy Rating:
688 – 2,064 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 Cabinet

- Controls – Unit & Microgrid
- Fire alarm control panel (pre-installed, NFPA 855 compliant)
- Connectivity & Monitoring
- Auxiliary power equipment
- UPS

Inverter Cabinet

- Bi-directional inverter
- Grid following and forming capability
- Outdoor rated enclosure

DC Cabinet

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

3x DC Cabinet configuration with 1000 kW inverter (derated) shown above

EXAMPLE SITE LAYOUT



6x DC Cabinet configuration, back-to-back layout, with 1000 kW inverter

BESS SPECIFICATIONS

1000 kW Inverter	2x DC Cabinet	3x DC Cabinet	4x DC Cabinet	5x DC Cabinet	6x DC Cabinets
	250kW/688kWh	500kW/1032kWh	500kW/1376kWh	750kW/1720kWh	1000kW/2064kWh
Power	250 kW *	500 kW *	500 kW *	750 kW *	1,000 kW
Nameplate DC energy	688 kWh	1,032 kWh	1,376 kWh	1,720 kWh	2,064 kWh
DC voltage range	1,075-1,382 VDC				
DC Nominal voltage	1,228.8 VDC				
AC connection	3-wire (3P3W)				
AC Voltage	480 V				
Frequency	60 Hz				
Overload capacity	105% for 5 min; 115% for 2s				
Power factor	Full 4-quadrant operation				
Inverter efficiency	Up to 98.5%				
Operating temperature (ambient)	-4 °F to 122 °F				
	(-20 °C to 50 °C)				
	-40 °F (-40 °C) option; power derate above +104 °F (40 °C)				
Altitude before derate	3,280 ft (1,000 m)				
Noise	<70 dB @ 3.3 ft (1 m)				
Dimensions (WxDxH)**	13' x 4.3' x 7.6' (4.0 m x 1.3 m x 2.3 m)	17.4' x 4.3' x 7.6' (5.3 m x 1.3 m x 2.3 m)	21.7' x 4.3' x 7.6' (6.6 m x 1.3 m x 2.3 m)	17.4' x 10.2' x 7.6' (5.3 m x 3.1 m x 2.3 m)	17.4' x 10.2' x 7.6' (5.3 m x 3.1 m x 2.3 m)
Weight (approx.)	18,690 lb (8,480 kg)	26,180 lb (11,880 kg)	33,680 lb (15,280 kg)	41,170 lb (18,680 kg)	48,670 lb (22,080 kg)

*Derated inverter

**Approximate dimensions; width assumes minimum required spacing of 30 mm between and 500 mm back-to-back for DC Cabinets. Spacing between DC Cabinets and Inverter is site dependent, but assumed to be 610 mm (2 ft)

STANDARD FEATURES

- CONTROLS**

 - Battery (unit) controller

ELECTRICAL SYSTEMS

 - Ground fault monitoring
 - BESS control panel
 - Auxiliary power equipment
- BIDIRECTIONAL INVERTER**

 - 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
- ENCLOSURE**

 - Forklift pockets
 - Lifting eyebolts

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

*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.