

Power Rating:

1 – 2.5 MW

Energy Rating:

2.5 – 5 MWh

Enclosure Style:

Outdoor rated



Reference image of SBE Block with 1-1.5 MW inverter

Codes and Standards



UL 1642



UL 1973



UL 9540A



UL 1741 SB



UL 9540



UN 38.3



IEEE 1547



NFPA 855



NFPA 69



NFPA 68
(select models)

The Generac Solution

Energy management today means balancing a combination of carbon reduction, energy savings, and energy resilience goals. Generac's SBE Block 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

DC Block

- Up to 5 MWh/block
- LFP, Liquid cooled
- IP55 enclosure
- Single DC output
- Dry pipe & sprinkler system
- Aerosol fire suppression (option)
- Emergency-Stop
- Dehumidification

Controls Cabinet

- Controls – Unit & Microgrid
- Fire alarm control panel
- Connectivity & Monitoring
- Auxiliary power equipment
- Type 3R enclosure
- UPS

Inverter

- Bi-directional inverter
- IP55 enclosure
- Grid following and forming capability
- Outdoor rated enclosure

Reference image of SBE Block with 1-1.5 MW inverter

BESS SPECIFICATIONS

DC Block (Battery)				
Nameplate DC energy	5,016 kWh	4,180 kWh	3,344 kWh	2,508 kWh
Battery racks/container	6	5	4	3
DC voltage range	1,165 – 1,498 VDC			
DC nominal voltage	1,331 VDC			
Max C-rate	0.5C			
Dimensions (WxDxH)	19.9 ft x 8.0 ft x 9.5 ft (6.1 m x 2.4 m x 2.9 m)			
Weight (approx.)	99,200 lb (45,000 kg)	86,900 lb (39,400 kg)	74,500 lb (33,800 kg)	62,200 lb (28,200 kg)
Operating temperature (ambient)	-22 °F to 131 °F (-30 °C to 55 °C)			

Inverter

Power	1,000 kW	1,300 kW	1,500 kW	1,600 kW	2,000 kW	2,500 kW
AC Voltage	480 V	600 V	690 V	480 V	600 V	800 V
Frequency	60 Hz					
AC Connection	3-wire (3P3W)					
Overload capacity	105% for 5 min; 115% for 2 s			120% for 10 s		
Power factor	Full 4-quadrant operation					
Inverter efficiency	Up to 98.5 %			Up to 98.7%		
Dimensions w/ Controls Enclosure (WxDxH)	4.5 ft x 5.7 ft x 7.5 ft (1.4 m x 1.7 m x 2.3 m)			8.2 ft x 4.1 ft x 6.6 ft (2.5 m x 1.2 m x 2.0 m)		
Weight w/ Controls Enclosure (approx.)	3,520 lb (1,597 kg)			4,909 lb (2,230 kg)		
Operating temperature (ambient)	-4 °F to 104 °F (-20 °C to 40 °C) -40 °F (-40 °C) option; power derate above +104 °F (40 °C)			-22 °F to 140 °F (-30 °C to 60 °C) Power derate above +113 °F (45 °C)		
Altitude before power derate	3,280 ft (1,000 m)			3,280 ft (1,000 m)		
Noise	<70 dB @ 9.8 ft (3 m)			<80 dB @ 3.3 ft (1 m)		

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

FIRE PREVENTION AND SUPPRESSION SYSTEM

- **NFPA 69 compliant:** gas detection and ventilation
- **NFPA 68 compliant:** deflagration panels on all models; NFPA 68 on select models
- Dry pipe and sprinkler system
- Smoke detector
- Audible/visual alarms
- Fire alarm control panel
- Door mounted Emergency-Stop
- UPS capable of 24 hrs in standby and 2 hrs in alarm

ENCLOSURES

- DC Block: Lifting points
- Inverter: Lifting eyebolts
- Controls Cabinet: Lifting eyebolts and forklift pockets

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

FIRE PREVENTION AND SUPPRESSION SYSTEM

- Aerosol fire suppression

O&M

- Extended warranty up to 20-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

	Nameplate energy capacity (kWh)			
Power (kW)	2,508	3,344	4,180	5,016
1,000	2 hour	3 hour	4 hour	4 hour
1,300	2 hour*	2 hour	3 hour	4 hour
1,500		2 hour	3 hour	3 hour
1,600		2 hour	2 hour	3 hour
2,000			2 hour	2 hour
2,500				2 hour

*Max rated power at 2,508 kWh is ~1250 kW due to 0.5C limitation.

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.