

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**The Generac Solution**

UL 9540



UL 9540A



UL 1973



UL 1642



UL 1741SB Ed. 3



UN 38.3



IEEE 1547



NFPA 855



NFPA 69

NFPA 68
(select models)CSA 22.2 Large
Scale Fire Test

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.

Why Generac:

- **Fully integrated** – The SBE Block is integrated and tested by Generac as a full system – Batteries + Inverter + Controls. It comes with a built-in Generac Controller and optional Generac Microgrid Controller, enabling seamless integration with onsite generators, turbines and other resources in grid-tied or off-grid applications.
- **Long-Term Value** – With an extended warranty from Generac of up to 20 years, and Generac certified technicians across the US & Canada, the SBE Block offers long-term reliability and peace of mind for your energy storage investment.
- **Safety You Can Trust** – The SBE Block is engineered with safety at its core. It is UL 9540 certified, NFPA 855 compliant, and Large-Scale Fire Tested, with multiple layers of protection including a dry pipe & sprinkler system, aerosol fire suppression, and an integrated Fire Alarm Control Panel that integrates with your site's safety systems.

Modular and scalable using common building blocks



Reference image of SBE Block with 1-1.5 MW inverter



Inverter

- Up to 5 MWh/block
- LFP, Liquid cooled
- IP55 enclosure
- Single DC output
- Gas detector, venting fan
- Smoke detectors
- Deflagration panels
- Dry pipe & sprinkler system
- Aerosol fire suppression
- Emergency-Stop
- Dehumidification

Controls Cabinet

- Built-in Generac Battery Controller
- Connectivity & Monitoring
- Auxiliary power equipment
- Type 3R enclosure
- UPS (inverter dependent)

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

SAMPLE LAYOUT



20 MWh

- Option to arrange 4x DC Blocks in 2x2 grid to reduce footprint
- Large Scale Fire Tested – enables more energy dense layout
- A/B models with flipped components on DC Block for optimal site layout

BESS SPECIFICATIONS

DC Block													
Model	SBE-B-2508-1000	SBE-B-3344-1000	SBE-B-4180-1000	SBE-B-5016-1000	SBE-B-3344-2500	SBE-B-4180-2500	SBE-B-5016-2500						
Nameplate DC energy	2,508 kWh	3,344 kWh	4,180 kWh	5,016 kWh	3,344 kWh	4,180 kWh	5,016 kWh						
Battery racks/container	3	4	5	6	4	5	6						
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.)	62,200 lb (28,200 kg)	74,500 lb (33,800 kg)	86,900 lb (39,400 kg)	99,200 lb (45,000 kg)	74,500 lb (33,800 kg)	86,900 lb (39,400 kg)	99,200 lb (45,000 kg)						
Operating temperature (ambient)	-22 °F to 131 °F (-30 °C to 55 °C)												
Noise*	<77 dB @ 9.8 ft (3 m)												
Inverter													
Max rated power	1,250 kW	1,500 kW	1,500 kW	1,500 kW	1,600 kW	2,000 kW	2,500 kW						
AC Voltage	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%												
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 140 °F (-20 °C to 60 °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)				<75 dB @ 9.8 ft (3 m)								

*Measured at 1 m, estimated at 3 m assuming free-field spherical spreading.

Configurations are scalable to larger MW/MWh ratings.

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
- Aerosol fire suppression
- 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

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
1,043	2hour	3hour	4hour	4hour
1,300	2hour*	2hour	3hour	4hour
1,500		2hour	3hour	3hour
1,600		2hour	2hour	3hour
2,000			2hour	2hour
2,500				2hour

*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.