# SBE1000 | LFP | 1,000 kWh

#### LITHIUM ION BATTERY ENERGY STORAGE SYSTEM



## **Power Rating:**

250 kW / 500 kW / 1,000 kW

# **Energy Rating:**

1,000 kWh

## **Enclosure Style:**

Custom 20 ft



# **Codes and Standards**

#### Contact Generac for details.

(ĥ)

UL 1642

(ŷL)

UL 1973



UL 9540A



UL 1741



UL 9540



CSA 22.2



UN 38.3



IEEE 1547



**NFPA 855** 

# **The Generac Solution**

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

The SBE energy storage systems enable commercial and industrial 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.

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#### LITHIUM ION BATTERY ENERGY STORAGE SYSTEM



BESS SPECIFICATIONS	250 kW / 1,000 kWh	500 kW / 1,000 kWh	1,000 kW / 1,000 kWh	
Nameplate DC energy	1,198 kWh	1,198 kWh	1,198 kWh	
DC voltage range	874-1,123 VDC	874-1,123 VDC	874-1,123 VDC	
Nominal voltage	998.4 VDC	998.4 VDC	998.4 VDC	
AC connection	3-wire (3P3W)	3-wire (3P3W)	3-wire (3P3W)	
Nominal AC voltage	480 V	480 V	480 V	
Frequency	60 Hz	60 Hz	60 Hz	
Overload capacity	110%, 10 min 125%, 10 s	110%, 10 min 125%, 10 s	110%, 10 min 125%, 10 s	
Power factor	Full 4-quadrant operation	Full 4-quadrant operation	Full 4-quadrant operation	
Inverter efficiency	Up to 98.4%	Up to 98.4%	Up to 98.4%	
Dimensions (approx.)	20 ft x 8 ft x 9.6 ft (6.1 m x 2.4 m x 2.9 m)	20 ft x 8 ft x 9.6 ft (6.1 m x 2.4 m x 2.9 m)	20 ft x 8 ft x 9.6 ft (6.1 m x 2.4 m x 2.9 m)	
Weight (approx.)	38,229 lb (17,340 kg)	38,367 lb (17,402 kg)	41,222 lb (18,697 kg)	
Contact Generac for smaller capacities within the 20 ft enclosure; minimum capacity is 600 kWh.				

### **ENVIRONMENTAL**

Operating temperature	-13 °F to 113 °F -25 °C to 45 °C	-13 °F to 113 °F -25 °C to 45 °C	-13 °F to 113 °F -25 °C to 45 °C
Enclosure	NEMA 3R (Outdoor)	NEMA 3R (Outdoor)	NEMA 3R (Outdoor)
Altitude before derate	3,280 ft (1,000 m)	3,280 ft (1,000 m)	3,280 ft (1,000 m)
Noise (approx.)	<65 dB @ 3.3 ft (1 m)	<65 dB @ 3.3 ft (1 m)	<65 dB @ 3.3 ft (1 m)

## STANDARD FEATURES

#### **ELECTRICAL SYSTEMS**

- · Auxiliary load panel
- Lighting
- · BESS controller panel
- · Ground fault monitoring

# **CONTROLS**

· Door open alarm switch

# **BIDIRECTIONAL INVERTER**

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

# FIRE PREVENTION AND SUPPRESSION SYSTEM

- · Smoke detectors
- · Audible alarm
- · Visual alarm
- Remote E-Stop
- · Dry solution suppression
- · Remote alarm
- Temperature sensors

### **ENCLOSURE**

- NEMA 3R
- · Structural steel base
- · Drip edge door covers
- Insulated enclosure and doors
- Reinforced cable cutouts entry points
- · Lifting eye provisions



#### **BESS CONTROL SYSTEM**

#### **USE CASES**

- Peak shaving
- Arbitrage
- · Back up power
- · Black start
- · Renewable energy shifting
- · Voltage regulation
- · Frequency response
- · Engineered UPS
- · Grid forming off-grid

#### **FEATURES**

- · Local data server
- HMI interface
- · Cloud based monitoring
- Multilevel authentications for security operation
- · Data acquisition and control functions
- · Event reporting
- Remote configuration firmware and software upgrade
- · Ramp rate control demand management

- Modbus TCP
- Sunspec protocol
- CAN
- · Ethernet based communication
- Compatibility with 3rd party EMS, SCADA systems

### **OPTIONS**

#### **ELECTRICAL SYSTEMS**

- · Automatic transfer switch
- · Isolation transformer
- · LV circuit breaker

# HVAC

· Electric reheat with humidity control

### CONTROLS

· Custom HMI screen interface

# FIRE PREVENTION & SUPPRESSION SYSTEM

- · Off gas detection (Li-ion Tamers)
- · Dry pipe and sprinkler system
- · Deflagration venting panels

#### 0&M

- 10 year extended warranty
- · Long term service contract

#### **ENCLOSURE**

- · Security camera
- · Exterior flood lights
- Seismic rating
- Arctic rated
- · Key pad lock

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 Engineer/Procurement/Construct (EPC) services.