

Power Rating:

125 kW / 250 kW / 500 kW

Energy Rating:

500 kWh

Enclosure Style:

Custom 10'



Codes and Standards

Contact Generac for details.



UL 1642



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.
- 2. Pair with on-site solar and lower both carbon footprint and energy costs.
- 3. 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.

SBE500 | 500 kWh | LFP

LITHIUM ION BATTERY ENERGY STORAGE SYSTEM



BESS SPECIFICATIONS	125 kW / 500 kWh	250 kW / 500 kWh	500 kW / 500kWh
AC port configurations	3-wire (3P3W)	3-wire (3P3W)	3-wire (3P3W)
Nominal AC voltage	480, 600 V	480, 600 V	480, 600 V
Frequency	60 Hz	60 Hz	60 Hz
Overload capacity	110%, 10 mins. 125%, 10s	110%, 10 mins. 125%, 10s	110%, 10 mins. 125%, 10s
Power factor	Unity; Full 4-quadrant	Unity; Full 4-quadrant	Unity; Full 4-quadrant
Peak efficiency	Up to 98.4%	Up to 98.4%	Up to 98.4%
DC voltage range	740 - 1,475 VDC	710 - 1,250 VDC	710 - 1,250 VDC
Nominal voltage	998.4 V	998.4 V	998.4 V
Max battery C-rate	1 C	1 C	10
Dimensions (approx.)	10' x 8' x 9'	10' x 8' x 9'	10' x 8' x 9'
Weight (approx.)	13,698 lbs	14,184 lbs	14,322 lbs

Contact Generac for smaller capacities within the 10' enclosure; minimum capacity is 200 kWh.

ENVIRONMENTAL

Operating temperature	-13° F to 113° F	-13° F to 113° F	-13° F to 113° F
	-25° C to 45° C	-25° C to 45° C	-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 < 1m	65 dB < 1m	65 dB < 1m

STANDARD FEATURES

ELECTRICAL SYSTEMS

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

CONTROLS

· Door open alarm switch

BIDIRECTIONAL INVERTER

- · Dynamic transfer
- Grid tie
- Off-grid
- 4 quadrant operation
- THD < 2%

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 doors
- Reinforced cable cutouts entry points
- Lifting eye bolts



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

- · Motorized damper with pressure relief
- · Electric reheat with humidity control

CONTROLS

- · Custom HMI screen interface
- Larger HMI screen

FIRE PREVENTION & SUPPRESSION SYSTEM

- Off gas detection (Li-ion Tamers)
- · Sprinkler system
- Motorized louvers
- Dry pipe
- Deflagration venting panels

0&M

- 10 year limited warranty
- · Long term service contract
- Contact Generac for performance guarantee service products

ENCLOSURE

- · Security camera
- Exterior flood lights
- · Sound reduction silencer
- Seismic rating
- · Explosion rated exterior pressured doors
- · Exterior finishing
- 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.