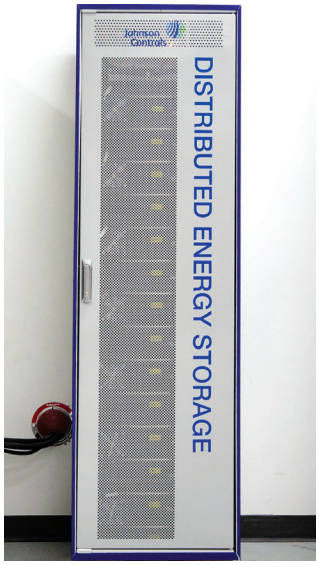
# IN-BUILDING DISTRIBUTED ENERGY STORAGE: L1000





Manage energy use, reduce costs and provide backup power for a building, campus or enterprise with the L1000 In-Building Distributed Energy Storage System from Johnson Controls. We combine world-class energy storage technology with buildings expertise and intelligent controls for the solution that performs best with your existing building systems.

The flexible indoor system can be installed in any electrical room connected to the facility grid and delivers maximum benefits:

- **Seamless integration with building systems,** including *Metasys*® and other building automation systems via BACnet® or Modbus. Our advanced controls blend HVAC, lighting, security, and fire safety to optimize whole-building performance and simplify participation in energy markets.
- **Greatest economic benefits** captured through support of multiple applications. The L1000 handles and optimizes for multiple applications, including peak shaving, load shifting, frequency regulation, demand response, and participation in energy markets and incentive programs to cut costs and generate revenue.
- **Customizable system with scalable modules,** that fits your needs, with output from 50kW up to 250kW. Batteries are snapped into racks (no electrician needed) with our controls and embedded software.
- **Local and remote real-time monitoring, diagnostics and control.** The system overview displays energy, power, health, alarm and key performance indicator trends, updated in real time. Detailed views and reports provide additional data.
- **Lowest lifecycle cost** through adaptive algorithms and premium battery composition.

## THE L1000 AT A GLANCE

- Indoor solution for buildings, campuses and enterprises
- Efficient energy management, reduced costs and backup power
- Modular capacity increments of 45 kWh (45 kWh, 90 kWh, 135 kWh)
- Remote and local real-time monitoring and control
- *Metasys*® compatible

## WHY JOHNSON CONTROLS?

We build solutions that meet today's needs and shape better tomorrows. Distributed Energy Storage from Johnson Controls brings together the company's expertise in batteries and buildings to create smarter buildings with more efficient energy use. As a global diversified technology and multi-industrial leader, Johnson Controls is capable of delivering complex energy storage solutions and has a track record of successfully implementing projects across the globe.

Johnson Controls

# L1000 Product Specifications

| Characteristic | BU-50E | BU-100E | BU-125E | BU-50P | BU-100P |
|---|---|---|---|---|---|
| Nameplate Storage Capacity (kWh) | 45 | 91 | 137 | 46 | 92 |
| Usable Storage Capacity (kWh) | 40.5 | 81.9 | 123.3 | 41.4 | 82.8 |
| Maximum Charging Power (kW) | 45 | 91 | 137 | 92 | 184 |
| Maximum Discharging Power (kW) | 45 | 91 | 137 | 92 | 184 |
| Output Power (kW) | Dependent upon PCS selected; see PCS specifications in L1000 Product Bulletin | | | | |
| DC Voltage Range (Vdc) | 588 – 823 | 588 – 823 | 588 – 823 | 588 – 823 | 588 – 823 |
| AC Output Voltage (Vac) | Dependent upon PCS selected; see PCS specifications in L1000 Product Bulletin | | | | |
| Aux Power Input (Vac) | 24 Vdc, 250W (max) | | | | |
| Regulatory Listings | NEC 2017, NFPA 70E, UN 38.3, UL 1642, UL 1973, UL 9540, FCC Part 15B, IBC/CBC | | | | |
| Building Interface (optional) | Johnson Controls *Metasys*® system, ASHRAE BACnet® | | | | |
| System Monitoring | Local and Remote | | | | |
| Operating Temperature | 0°C to +40°C (System derates if temperature is below +18°C or above +28°C)<br>+32°F to +104°F (System derates if temperature is below +64°F or above +82°F) | | | | |
| Operating Humidity | 5% – 85% relative humidity, non-condensing | | | | |
| Dimensions (W x H x D) | 520 x 1880 x 425 mm<br>20.5 x 74 x 16.7 in | 520 x 2000 x 670 mm<br>20.5 x 78.8 x 26.4 in | 520 x 2000 x 945 mm<br>20.5 x 78.8 x 37.2 in | 520 x 1880 x 425 mm<br>20.5 x 74 x 16.7 in | 520 x 2000 x 670 mm<br>20.5 x 78.8 x 26.4 in |
| Approximate Weight | 435 kg<br>959 lbs | 800 kg<br>1764 lbs | 1305 kg<br>2877 lbs | 472 kg<br>1040 lbs | 758 kg<br>1671 lbs |

# Storage System Sizes

| Model | Energy (E) | Power (P) | PCS | Units |
|---|---|---|---|---|
| BU-50 | 45 | 46 | None | kWh |
| BU-100 | 84 | 91 | None | kWh |
| BU-125 | 137 | – | None | kWh |
| **Model** | **Energy (E)** | **Power (P)** | **PCS** | **Units** |
| SU-50 | 45 | 46 | 50 | kWh/kW |
| SU-100 | 84 | 91 | 50 | kWh/kW |