

# Distributed Energy Storage System

## L2000 Modular Container



Discover state-of-the-art distributed energy storage for utilities and large commercial customers. The L2000 Modular Container Distributed Energy Storage System from Johnson Controls draws on our world-class battery technology, facilities expertise and intelligent controls to handle multiple, concurrent applications. This scalable system can provide hours of high-energy output within a proven modular design, drawing on our decades of experience in modular data centers and chiller plants.

### Multiple Application Support

The system can be programmed to perform multiple, concurrent applications including demand management, transmission and distribution deferral, capacity, voltage support, renewable integration, frequency regulation and other ancillary services.

### Multiple Power Options

The system output can be configured based upon customer needs from 500kW up to 2MW.

### Modular Capacity Options

System capacity can be configured based upon customer needs in 500kWh increments.

The result: an efficient, cost-effective solution that can be integrated into the energy control system of a utility, regional transmission organization or facility, at the lowest total lifecycle cost. As a global multi-industrial leader, we have the manufacturing excellence, innovation focus and customer insight to deliver leading-edge distributed energy storage products. Learn how the L2000 modular system brings new opportunities to regulate, store and distribute power.

### Utility and Building Compatible

The system integrates seamlessly into the utility or building energy management system using standard protocols.

### Remote System Monitoring

Provides local and remote real-time monitoring, diagnostics and control of the energy storage system.

### Separable Power Conversion

For customers with their own power conversion system, the battery units can be ordered separately.

### Modular Footprint

Batteries are housed in custom 20ft, 40ft or 45ft containers to ISO shipping container dimensions.

# Distributed Energy Storage System

## L2000 Modular Container

### Product Specifications

<b>Minimum Storage Capacity</b>	500 kWh
<b>Storage Capacity Increment</b>	500 kWh
<b>Power Rating</b>	Dependent upon PCS
<b>Applications</b>	Transmission and Distribution Deferral, Capacity, Frequency Regulation, Voltage Support, Renewable Integration and Other Ancillary Services
<b>DC Voltage</b>	856 VDC (nominal)
<b>AC Voltage</b>	Dependent upon PCS
<b>Seismic</b>	Zone 4 (California)
<b>Utility Interface</b>	DNP3
<b>Building Interface</b>	Johnson Controls <i>Metasys</i> ®, ASHRAE BACnet
<b>Monitoring</b>	Local and Remote
<b>Fire Alarm Detection</b>	Potter
<b>Fire Suppression</b>	Novec™ Aerosol
<b>HVAC</b>	York, size dependent on application
<b>Network Security</b>	SSL/X509
<b>Battery Cells</b>	High-Energy Density Prismatic
<b>Expected Life</b>	Up to 20 years*
<b>Dimensions (W x D x H)</b>	8ft (2.438m) x 20ft (6.95m) x 9ft 6in (2.895m) 8ft (2.438m) x 40ft (12.19m) x 9ft 6in (2.895m) 8ft (2.438m) x 45ft (13.716m) x 9ft 6in (2.895m)
<b>Weight (lbs)</b>	Dependent on configuration

\*Actual may vary—dependent on environmental conditions and application. More details are available on our website: [www.johnsoncontrols.com/DES](http://www.johnsoncontrols.com/DES).

### Ordering Information

#### Power Conditioning Systems

<b>PCS-500</b>	500 kW Inverter
<b>PCS-750</b>	750 kW Inverter
<b>PCS-1000</b>	1 MW Inverter
<b>PCS-2000</b>	2 MW Inverter

#### Battery Units

Configurable – 500 kWh in 20ft container, up to 4.8 MWh in 45ft container

#### Remote Monitoring Units

<b>RMU-CELL</b>	4G LTE remote monitoring interface
<b>RMU-WIFI</b>	Wireless Internet monitoring interface
<b>RMU-ETH</b>	1G Ethernet interface