



The ELM Microgrid Turnkey Package is shipped as a self-contained unit and can be installed outdoors or indoors.



## MICROGRID 30kW PACKAGE

### Turnkey Solution

*Factory Assembled*

*Pre-Engineered*

*Pre-Wired*

*Pre-Installed Safety Labels*

*Pre-Tested*

### Managed Assets

*Solar Generation*

*Distributed Battery Storage*

*Diesel, Propane & Nat Gas Generators*

*CHP Systems*

*Grid Power*

### Communications & Control

*4G LTE Cellular*

*Ethernet and Wifi*

*Building Management*

*Generator Start and Stop*

*Optimal Power Forecasting*

*Power Reliability Alerts*

*Isochronous Generation Control*

### The Switch Advantage

*Turnkey Solution*

*Indoor and Outdoor Enclosure Options*

*Climate Control*

*Fire Suppression Options*

*Microgrid Installation and O&M Guides*



## Electrical Specifications

|  |                              |
|--|------------------------------|
| AC Voltage                             | 480 VAC                      |
| AC Input/Output Current                | 39 A                         |
| Max AC Output ( <i>discharge</i> )     | 30kW                         |
| Max AC Input ( <i>charge</i> )         | 30kW                         |
| Battery Capacity Range                 | 78kWh – 156kWh               |
| AC Frequency ( <i>field settable</i> ) | 60 Hz                        |
| Max AC Overcurrent Protection          | 200 A                        |
| Conversion Efficiency                  | 95%                          |
| Power Factor                           | 0 -.75 Leading<br>or Lagging |
| AC Connection                          | 3-Phase, 3-Wire              |

## Equipment Specifications

|                                    |                      |
|------------------------------------|----------------------|
| External Dimensions<br>(L x W x H) | 60" x 36" x 84"      |
| Weight                             | 4,300-8,350 lbs.     |
| Lifting Provisions                 | Fork Lift Slots      |
| Paint Tested                       | 1000 Salt Hour Spray |
| Fire Suppression Options           | 3M Novec             |
| Temperature Range                  | -20°C to 50°C        |

## Transfer to and from Islanded Mode

**Upon detecting a grid disturbance, the system disconnects the Microgrid from the grid and seamlessly transitions critical/resiliency loads to Microgrid Islanded mode.**

**While in Microgrid Islanded mode, the system manages solar, wind and generator assets in order to efficiently support the resiliency loads.**

**For higher power or storage requirements multiple systems can be paralleled and additional energy storage containers can be added. Please contact Current Energy Storage for more details.**

## Control Software

|  |
|--|
| ELM Autonomous Microgrid Site Control System |
| Access & Alerts on Desktop & Mobile 24/7     |
| Asset Monitoring System Level & Individual   |
| Individual Microgrid Component Pages         |
| Local HMI IP 65 Touchscreen                  |
| Communications: WiFi, Ethernet, Cellular     |

## Functionality

|                        |   |
|------------------------|---|
| Islanded MicroGrid     | Off-Grid Applications   |
| Grid Tied MicroGrid    | AI Machine Learning<br>Demand Charge Mgmt.<br>Peak Shaving<br>Self-Consumption<br>Demand Response |
| Distributed Generation | Time of Use Operation   |

## Key System Components

|                                 |
|---------------------------------|
| NEMA 3R Enclosure               |
| Bi Directional Storage Inverter |
| DC Disconnect - (Battery)       |
| AC Disconnect (Inverter)        |
| Climate Controls                |

## Certifications

|           |                                      |
|-----------|--------------------------------------|
| Batteries | UL 1973, UL 9540A                    |
| Inverter  | UL 1741 SA, IEEE 1547a<br>CA Rule 21 |
| System    | UL 9540                              |

