



Creating the Future of Energy

# LIM50EL-12 LITHIUM BATTERY 480V UPS CABINET

GS YUASA: A GLOBAL LEADER IN ENERGY STORAGE TECHNOLOGIES  
FOR OVER 100 YEARS

## FEATURES AND BENEFITS

### LONG SERVICE LIFE

- 90% retained capacity at 15<sup>th</sup> year at 25°C
- More than 3x service life of lead

### SAFETY

- Inherently safe and proven LMO chemistry
- Isolated compartments for battery modules, high and low voltage controls

### SPATIAL

- Smallest footprint Lithium UPS solution available
- Over 60% floorspace savings compared to lead
- Over 70% weight savings compared to lead

### REGULATORY

- UL1973— 4Q2023
- UL9540A— 4Q2023

### OTHER

- Cells and Modules Designed and Manufactured In Japan
- TAA Compliant



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| Cabinet Module Configuration (Parallel/Series)                |  |           |           |           |
|---|--|-----------|-----------|-----------|
| (Parallel/Series)   | 2P12S                                    | 1P12S     | 2P11S     | 1P11S     |
| ELECTRICAL  |  |           |           |           |
| Capacity, kWh   | 54.7                                     | 27.4      | 50.2      | 25.1      |
| Power, kW   | 54.7                                     | 27.4      | 50.2      | 25.1      |
| Nominal Vdc   | 480                                      |           |           |           |
| Standard Charging Current, A                                  | 100                                      | 50        | 100       | 50        |
| Standard Full Charging Voltage, Vdc                           | 590.4                                    | 590.4     | 541.2     | 541.2     |
| Maximum Charging Current, A                                   | 250                                      | 125       | 250       | 125       |
| Maximum Charging Voltage, Vdc                                 | 590.4                                    |           | 541.2     |           |
| Maximum Discharge Current, A (Continuous)                     | 400                                      | 200       | 400       | 200       |
| Maximum Discharge Current, A (60 seconds)                     | 600                                      | 300       | 600       | 300       |
| Maximum Discharge Power For UPS Application, kW CP Continuous | 333.5                                    | 166.7     | 305.7     | 152.8     |
| Discharge End Point Voltage, Vdc                              | 396                                      | 396       | 363       | 363       |
| Communications  | RS485, CAN2.0B, Modbus/TCP, Dry contacts |           |           |           |
| PHYSICAL  |  |           |           |           |
| Dimensions, in. (W*D*H*)                                      | 31*33*80*                                | 22*33*80* | 31*33*80* | 22*33*80* |
| Weight, Lbs.  | 1900*                                    | 950*      | 1780*     | 890*      |
| Cable Entry Point   | Top                                      |           |           |           |
| ENVIRONMENTAL   |  |           |           |           |
| Recommended Operating Temperature                             | 0°C to 50°C    (32°F to 122°F)           |           |           |           |
| Humidity, RH  | 10% to 90% without condensation          |           |           |           |
| Altitude, Ft.   | 6,560 Maximum                            |           |           |           |
| Human Machine Interface                                       | Touch Panel on Master Cabinet            |           |           |           |
| Optional Peripheral Modules                                   | 1+1 Redundant Domain LIBM (BMS)          |           |           |           |
| Certifications (In Process)                                   | UL1973, UL9540A                          |           |           |           |

\*Approximate

#### ABOUT GS YUASA ENERGY SOLUTIONS, INC.

GS Yuasa has maintained a strong leadership position in lithium-ion technology since the mid-1990s when we first delivered cells for handheld devices. Our commitment to innovation has driven our expansion into various industrial and space/aerospace applications, including the International SpaceStation. Building upon our highly reliable technology, we introduced the LIM (Lithium Industrial Module) Industrial Battery Series, which has been in mass production since 2002 and continues to serve customers worldwide as a trusted energy storage solution. LIM cells and modules are designed and manufactured in Japan, ensuring the highest quality standards. Our proven LIM50-12 module is now available as a UPS Battery System configuration for mission critical data center applications.

