# LIM50EN Industrial Lithium-Ion Battery

GS Yuasa's heritage in large format Lithium-ion stretches back to the early 1990's. The LIM50EN modules incorporate GS Yuasa's unique advanced battery technologies, experience, manufacturing expertise and commitment to quality.

Customers with applications as varied as UPS, telecommunications, AGVs, energy storage systems, industrial power supplies and others have come to rely on GS Yuasa's LIM50EN's reliability and performance

## LIM50EN Optimized for Energy & Power

The LIM50EN has been optimized for applications requiring both high energy and power. The balanced performance and excellent service life make the LIM50EN an excellent choice for demanding industrial applications.

## LIM50EN Features

- · Excellent charge & discharge performance
- Superior energy density
- Predictable capacity retention
- · Excellent calendar and cycle life
- Low self-discharge
- · Wound prismatic construction

### **LIM50EN Battery Overview**

- Integrated battery monitoring
- Robust battery management system
- · Compact & lightweight
- High volume production

#### **LIM50EN Benefits**

- High reliability
- · Minimal maintenance
- Battery monitoring for safe & predictable operation
- · Excellent charge and discharge performance
- · Predictable life
- · Wide operating temperature range



LIBM



LCD Touchscreen



MODEL		LIM50EN-8	LIM50EN-12
Chemistry		LMO	LMO
Anode		Graphite	Graphite
Battery Specifications			
Capacity	Ah	47.5	47.5
Nominal Energy	Wh	1,406	2,109
Battery Electrical Specifications			
Nominal Voltage	V	29.6	44.4
End of Charge	V	32.8	49.2
End of Discharge	V	22.0	33.0
Continuous Current *	Α	50	50
Max. Pulse Charge Current*	Α	125	125
Max. Pulse Discharge Current *	Α	300 <60s	300 <60s
Battery Mechanical Specifications			
Dimensions (mm)	Wid th	219	219
	Len gth	440	617
	Hei ght.	128	128
Weight	kg	18	27
Environmental Operation Ranges			
Temperature range (°C)	Charg e*	0 ~ 45	0 ~ 45
	Disch arge*	-10 ~ 45	-10 ~ 45

<sup>\*</sup> Charge/discharge current dependent on operating conditions and temperature.

#### LIM50EN Safety and Reliability:

- Integrated Advanced Cell Sensor (ACS) monitors cell operation and performs cell balancing.
- Battery Management System (LIBM)
  - Controls all connected batteries to ensure operation remains within parameters.
  - Communicates with externally connected equipment.
- LCD Touchscreen for setting operational parameters and viewing real-time system status.

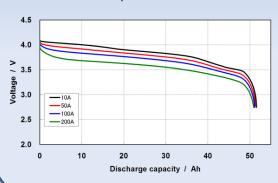
# LIM50EN Performance Characteristics

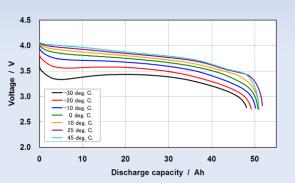
Since the introduction of the LIM series lithium-ion rechargeable batteries they have been adopted in a wide range of applications including railway systems, industrial equipment, and stationary energy storage systems.

GS Yuasa is addressing new technology development utilizing leading-edge battery technology and the know-how accumulated through decades of experience and achievement in battery and system design.

## **LIM50EN Discharge Performance:**

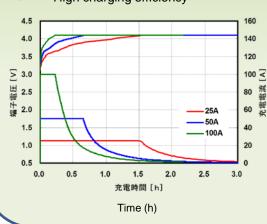
- Up to 300A pulse discharge.
  - Stable output across different rates and temperatures

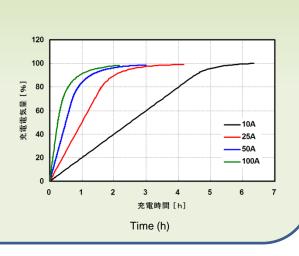




# **LIM50EN Charge Performance:**

- Rapid charge; up to 125A charging
- High charging efficiency





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