

IBMU Battery Monitoring Unit



Key Features

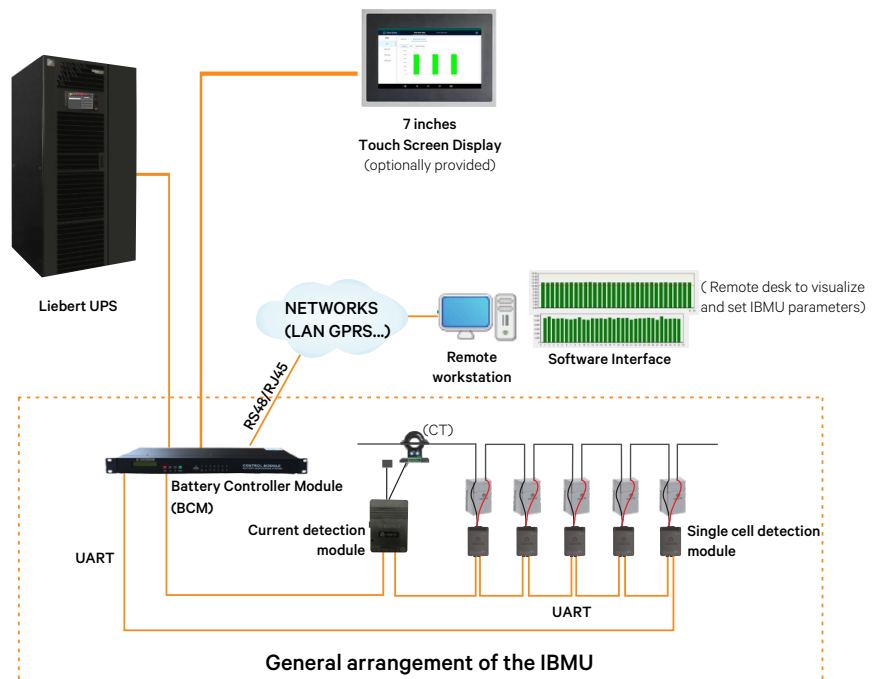
- Modular design, easy to install & manage.
- Manages up to 960 batteries per six number of battery strings for a single battery controller module
- Supports 2V, 6V, 12V lead- acid batteries.
- Monitors the real-time data of cell internal resistance and temperature which will detect battery capacity changes in time & avoid thermal runaway risks.
- Locate the faulty battery blocks.
- Aid to achieve the highest UPS uptime.
- User configurable alarm flags.
- SNMP/Modbus communication protocols for remote monitoring.
- Monitored & managed via UPS display.

Description

The battery is a critical element in protecting your critical IT infrastructure. A single bad cell within your back-up power system can potentially induce a risk of downtime for your mission-critical load operations. Leading number of statistics indicated that more than half of all the UPS failure instigated due to battery failure. Inevitably, this call for an intelligent and reliable diagnostic system that can track and help improve the battery performance in real-time basis.

Introducing the IBMU, an Intelligent Battery Monitoring Unit designed to optimize the battery performance and improve reliability without placing your critical operations in jeopardy due to potentially deteriorated cell. The IBMU monitors real-time operating status of each cell voltage, cell internal resistance & temperature, charging & discharging current, ripple voltage, and hydrogen concentration.

Embedded with the comprehensive acquisition & management tools, the IBMU proactively locate the battery malfunctions very accurately. Additionally, IBMU display parameters can be interlinked with the display of Liebert Power system thus simplifies the management of complete power system.



Technical Specification

Battery Controller Module

Operating Voltage	85 ~ 264 VAC, DC 110 ~ 370 V (standard); DC 48 V (optional)
Power Consumption	<15 W
Working Temperature	-10 °C ~ +50 °C
Working humidity	5% ~ 95 %
Communication interface	RS 485 and 10/100M network port, support MODBUS/RTU, MODBUS/TCP and SNMP protocol
Man-machine interface	7-inch touch screen, LED status display and buzzer alarm
Installation method	Wall mounted, 19inch rack



Battery Controller Module



Single Cell Detection Module

Single Cell Detection Module

Operating Voltage	2 V module: 1.500 V ~ 2.500 V ±0.1% 6 V module: 4.500 V ~ 8.000 V ±0.1% 12 V module: 9.000 V ~ 15.000 V ±0.1%
Working temperature	-10 °C ~ +55 °C
Internal resistance detection range	50 ~ 65535 uΩ, ±2 %
Temperature detection range	-5 °C ~ +99.9 °C, ±1 °C
Installation method	Installed on the surface of the battery or battery holder



Current Detection Module

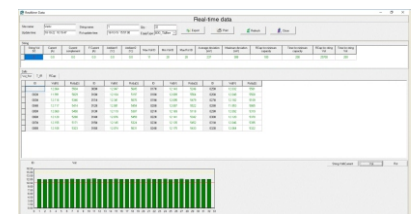
Current Detection Module

Operating voltage	DC 8 ~ 13 V (main control module power supply)
Power consumption	<0.15 W
Working temperature	-10 °C ~ +55 °C
Current detection range	BM-TC500: 0 ~ 1000 A BM-TC1000: 0 ~ 2000 A
Current detection accuracy	0 ~ 1000 A, ± 1% (FS)
Installation method	Installed on the surface of the battery or battery holder



7 inch Touch Screen Display

Component Description	Dimensions (DxWxH in mm)	Weight (g)
Main control module	<=116×430×44.5 (standard 1U)	<=1800
Single cell detection module	<=28×61×85	<=80
Current detection module	<=29×60×85	<=75



Software Interface