



Find Problem Batteries In Your UPS Battery Cabinet

BTECH's S5 Series Battery Monitoring and Validation System has been designed specifically for your UPS battery cabinet. BTECH's patented and proven impedance measurement technology finds bad batteries well before they pose a risk to your critical systems.

Plus the battery sensing harness is pre-designed, tested and can be pre installed in your battery cabinet, installation time is eliminated or greatly reduced and increases system reliability.

Why BTECH Is The World Leader In Battery Monitoring

We're Proven: Over 5,500 Systems Installed Worldwide

We're Superior: BTECH's patented impedance method provides rock solid data and accuracy allowing more time to respond - *no other system comes close.*

We're Non-Destructive: With a load signal optimized to the battery type, our system never subjects your batteries to a stressful load test. Additionally, our system is not powered by your batteries.

We Know Your Batteries: With more experience than anyone in the industry, our technical support staff is there for you when you have questions.

Key System Features

- Real Time monitoring of System/String/Unit Voltages, Float, Charge and Discharge Current
- Real time Thermal Runaway Management, Ambient, Pilot Cell and Differential Unit temperatures (Delta T) are recorded, if the Delta T measurement reaches a 15 deg F threshold the system generates a critical alarm. Delta T alarms are recognized as the best way to identify and mitigate Thermal Runaway. The system also monitors elevated unit voltages and excessive float charging. Optional smoke detection enables the S5 system to provide compliance with local Fire Code. Operators have the option to take a programmable relay contact in the S5 system and turn off the battery charger, or trip the battery breaker (dual shunt trips required).
- Programmable Cell Impedance Measurement: Up to 24x /Day
- Battery Discharge Data Logging
- Up to 480 Individual Cells and 8 Strings per system
- For use with all battery jars, including 16 Volt
- Individual String Current Monitoring for multi-string systems
- Complete Isolation from the Battery String

Facility Management System Integration

- MODBUS over TCP/IP for simple third-party software integration
- SNMP Compliant
- (6) Programmable Output Relays/(4) Programmable Input Relays

Alarm and Data Acquisition Options

- Integrated Web Card
- Local: RS-232 and USB/Integral Dial Up 56k Modem/Integral Ethernet Card (Cat 5/6)
- Alarms: Text Message to multiple cell phones, pagers or e-mail addresses, through BVM Software or BMS integration

Safety

BTECH Quick-Disconnect Safety Fuses simplify battery replacements while protecting personnel during installation and maintenance

SYSTEM SPECIFICATIONS

- Measurement Capability:**
 - Total Voltage: 0-600V
 - Total Number Strings: 8
 - Unit Voltage: 1-16 VDC
- Unit Impedance** 100 $\mu\Omega$ to 20m Ω
- Temperature - Unit and Ambient:** -32°F to 160°F
- Discharge Events:**
 - Date & Time
 - System Voltage
 - Load Current
 - Power Removed
- Discharge Logging:** Programmable
- Connection Capacity:**
 - Total Connection Points: 480
 - Total Number of Parallel Strings: 8
- Measurement Accuracy & Repeatability:**
 - System Voltage: +/- 0.1% Full Scale
 - Unit Voltage: +/- 0.1% of Reading
 - Unit Impedance: +/- 0.01 m Ω
 - Temperature: +/- 1.0°F
- Power Requirements:**
 - 110-250 VAC (UPS Protected Power)
 - 24-150 VDC (DC Version)
- Enclosure:**
 - SCM-600 Controller: NEMA 1 Metal
 - Rack or Wall Mount
 - VM24i Module: Voltage/Temperature/Current
Flame Retardant Poly
- LED Indicators - VM24 DCM:**
 - Green = Power On
- LED Indicators - SCM600 Controller:**
 - Green = Summary No Alarms
 - Yellow = Summary Maintenance Alarms
 - Red = Summary Critical Alarms
 - Red Equipment = Module not Communicating
 - Alternating Green = Performing Measurement
- Software:**

BVM 4.1 Windows® based software package designed Windows XP, Windows Server 2003, and Windows Vista.
- CE Mark/FCC**

SYSTEM CONFIGURATION

Type	Strings	Point Voltage	Monitoring Points	Current	Options	Configuration	Custom Code
S5H	1	02	240	- C	0	- WM	00
Type				Current Measurement			
S5H (60-600V)			S5H	Clamp, per string		C	
				Clamp, per system (2-8 strings)		T	
Strings							
1-4			1	Shunt, per string		S	
Point Voltage				Configuration (examples)			
1.2			01	Wall Mounted:		WM	
2			02	Rack Mounted:		RM	
4			04	Shelf Mounted:		WM	
6			06	Applications			
8			08	Flooded Cells on Racks			
12			12	VRLAs on Racks			
				VRLA Stack			
Monitoring Points				Custom Code			
2-480			240			00	

Example Ordering Codes

MGE UPS, 1 String of 240 Flooded Cells S5H-102240-C0-WM
 Powerware UPS, 2 Strings of 192-2v Flooded Cells S5H-202384-C0-WM