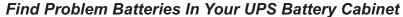




BATTERY MONITORING SYSTEM

FOR VRLA, FLOODED (WET) CELL BATTERIES, UPS. TELECOM and SWITCHGEAR APPLICATIONS



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.



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 programable 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) Programable Output Relays/(4) Programable 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

Safetv

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















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SYSTEM SPECIFICATIONS

Measurement Capability:

Total Voltage: 0-600VTotal Number Strings: 8Unit Voltage: 1-16 VDC

Unit Impedance 100μΩ to 20mΩ

• 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

S5H	1	02	240	–	C	0	-	WM	00
Туре	Strings	Point Voltage	Monitoring Po	ints	Current	Options		Configuration	Custom Code
Туре					Current M	leasureme	nt		
	(60-600V)		S5H		Clamp	, per string			С
Strings	,				Clamp	, per syster s)	n (2	-8	T
1-4			1			per string			S
Point Voltage					Configuration (examples)			5)	
1.2			01		Wall Mounted:				WM
2			02		Rack Mounted:				RM
4			04		Shelf Mounted:				WM
6			06 Applications						
8			08	08 Flooded Cells on Racks			ks		
12			12		VRLAs on Racks VRLA Stack				
Monitorii	ng Points								
2-480	_		240		Custom Code				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