

Battery Monitor Competitive Analysis

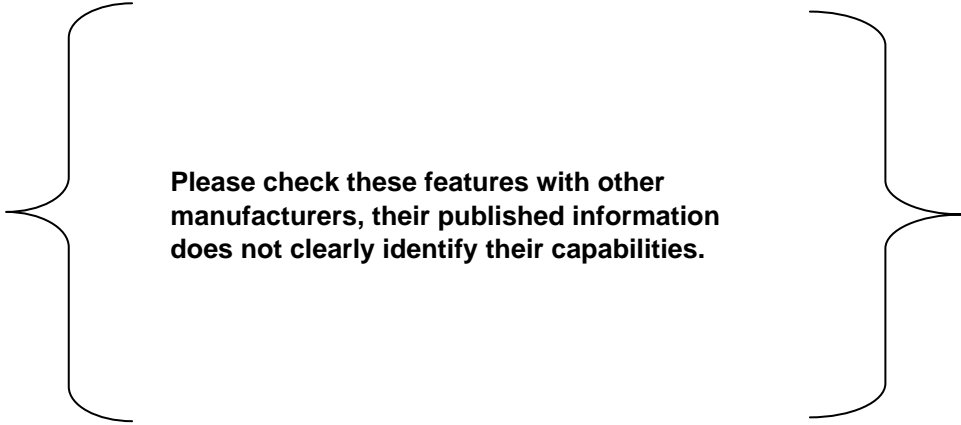
	Albercorp	Company A	Company B	Company N	Company V
Must Have Features:					
Pro-active state of health testing as recommended by IEEE Standards	YES - DC Measurement NOT influenced by ripple current	NO	YES - AC Measurement influenced by ripple current	YES - AC Measurement influenced by ripple current	Not a viable Measurement influenced by ripple current
Able to read resistance of large cells	Can read all cells	NO	NO	NO	NO
Test current	30 amps dc		10 amps	1 amp	None - Uses ripple current
Real Time display of all Voltages and Current	YES -updated every 4 sec. all string parameters visible on display at same time	YES - very slow updates single reading at a time on one line LCD display	NO	NO	YES - no update rates given
Able to track and record discharge real time	YES-all parameters updated 4 sec	YES - slow scan rate	NO- data updates once a minute	YES - limited scan rate	YES - no update rates given
Real Time display of all discharge parameters	YES -display updated every 4 sec.	NO	NO data access during discharge	NO data access during discharge	NO

NOTE: Real time is defined as updating all parameters once every 10 seconds or less

Other Important Features:

Communication					
TCP/IP - Internet/Intranet	YES	NO	NO	NO	YES - expensive option
Modem	YES	YES	YES	YES	YES
RS232 / Modem	YES	YES	YES	YES	YES
MODBUS Interface	YES	???	YES	YES	YES
Remote Alarming					
Dial Out to Central Computer	YES	NO	YES	NO	NO
Paging	YES	NO	NO	NO	NO
Remote Faxing	YES	NO	NO	NO	NO
Local Alarms					
Form C contacts	YES	YES	YES	YES	YES
Digital inputs	YES	NO	YES	NO	YES
Output control funtions	8 programmable switch closures	NO		NO	

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Software features:					
Auto polling for data and status	Database for at least 1000 sites	 <p>Please check these features with other manufacturers, their published information does not clearly identify their capabilities.</p>			
Dial in/dial out	Remote Alarm reporting				
Data trending - graphic display	Resistance & Volts vs time				
Remote view of real time data	View current data at any site				
Forward alarms via pager or fax	Alarm goes to maint. personnel				
Hit record of all outages	Used to settle warranty issues & analyze input power problems				
Discharge data replay	Bar Graph replay of all Cell voltages, O.V., & Current				

Parameters measured Ranges & Accuracy

Overall String Voltage

Cell Voltages

Discharge Current

Temperature

Most Manufacturers measure these parameters and have sufficient expansion capability to handle very large systems. The differences, are in update rate, accuracy and how the systems are configured. Ease of installation, maintenance and calibration has to be considered when selecting a system.

The Alber system will meet or exceed any competitive product on the market today and that includes numbers of channels, input ranges and reading accuracy.

Where the Alber design clearly stands out against all other monitors , is in its ability to provide the user with early warning of developing battery problems. Without early corrective action, power system users will never achieve five nines reliability or better.