Alber™ BXE (Battery Xplorer Enterprise) SPECIFICATIONS

1.0 SUMMARY

Battery Xplorer Enterprise (BXE) is a web-based monitoring platform for managing collective data from Albér stationary and portable monitoring devices as well as Lithium Ion batteries. The Albér Battery Xplorer Enterprise has an intuitive user interface permitting easy review of battery condition and analysis along with probable cause and corrective actions of alarm conditions. The highly intuitive tool will aggregate all your battery data in one database from multiple monitoring product architectures and battery chemistries to streamline user experience and learning curves.

With the separate Albér Battery Xplorer Enterprise Lithium Ion software module, the capabilities are extended to aggregate data mapped from the Lithium Ion battery monitor systems (BMS). BXE displays, stores and alarms on the data provided from the BMS. As a result, the Albér software can provide battery status and analysis. One BXE Lithium Ion software module is required per BXE license.

2.0 BENEFITS

- Scalable as battery capacity increases
- Monitor multiple systems and locations
- Web browser functionality with no platform or OS dependencies
- Tablet compatible (iOS, Android)
- Supports new and legacy Albér stationary battery monitoring platforms
- Separate modules support Lithium Ion batteries, Cellcorder and Hydrometer portable products
- Quick and easy installation using wizards and existing database import functions
- Server application scaled based on battery string count
- Software service program to maintain optimal performance
- Remote monitoring

3.0 FEATURES

- System view providing summary, status and navigation
- Battery view with voltage, currents and temperature parameters
- Battery multi-string graphical viewing and trending
- Graphical alarm management with point-and-click filtering
- Probability cause and corrective action analysis
- Historical data collection and trending
- System email notifications
- Discharge playback
- Albér proprietary resistance test and measurement (lead acid batteries)
- Track State-of-Charge and State-of-Health (Lithium Ion-specific)

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• Albér Battery Monitor hardware not required (Lithium Ion-specific)

4.0 MEASUREMENT CAPABILITY- SYSTEM LEVEL

- Battery / System Fault / Mode Status
- Monitor (BXE) Status
- Overall string voltage
- Highest / lowest string voltage
- String current (actual / average)
- State of charge (Lithium Ion-specific)
- State of health (Lithium Ion-specific)

5.0 MEASUREMENT CAPABILITY- CELL LEVEL

- Voltage
- Temperature
- Voltage balancing state (Lithium Ion-specific)
- Voltage summary: average, lowest, highest
- Temperature summary: average, lowest, highest
- Internal cell resistance (lead acid batteries)
- Intercell resistance (lead acid batteries)
- Intertier resistance (lead acid batteries)
- Electrolyte level measurement (wet cells)

6.0 ALARMS

- Alarms generated by Albér Battery Monitor hardware
- Alarms configured in BXE (Lithium Ion-specific)
- Email notification on alarms (user-configurable)
- Set alarm thresholds (legacy Albér monitors and Lithium Ion batteries)
- Cell level and string level alarms
- Latch and rest

7.0 NOTIFICATIONS AND REPORTS

- Configurable cell and system level thresholds
- Store and playback of discharge events
- Trend analysis reports
- Alarm reports
- Scheduled reports

8.0 HARDWARE AND SOFTWARE SYSTEM REQUIREMENTS

NOTE: Software requirements depend on the version of Microsoft SQL express being installed. BXE installs SQL 20008R2 express as a default.

- Processor: Pentium 4 or better
- RAM : 2 GB
- Software Disk Space: approximately 500 MB or more
- Database Disk Space: 5 GB or more
- Network Topology: Ethernet 100 Mbps, Windows 7, Windows Server 2008 or later

9.0 WEB BROWSER COMPATIBILITY

- Microsoft Internet Explorer version 11.0 or above
- Google Chrome version 20 or above (preferred)
- Safari version 5.1 or above
- Firefox version 13 or above

10.0 SUPPORT SOFTWARE REQUIRED

- Microsoft Windows XP Professional, SP 2 or above
- Adobe Reader version 9.0 or above
- Internet Information Services (IIS) Manager version 4.0 or above. Refer to section 2 for Installing and Configuring Internet Information Services (IIS).
- Microsoft ASP.NET and Microsoft ASP.NET AJAX
- Microsoft .NET extendibility (framework 3.5 or above)

11.0 BATTERY XPLORER ENTERPRISE SERVICE CONTACT

- Optional, renewable 1 to 5 year BXE maintenance contract
- 2-hour phone support response
- Access to Customer Resolution Center and the Customer Service Internet portal
- Includes 100% software patches and updates
- Includes commissioning service and system adjustments after a battery or full string replacement

12.0 REFERENCE DOCUMENTS

- Albér BX and BXE System Requirements Guide (590-2166-501A/SL-29235/4200-104)
- Albér Battery Xplorer Enterprise Specification Sheet [SL-29208 (R05/17)]
- Albér Battery Xplorer Enterprise System Install Guide (590-2168-501A/SL-29237/4200-105)
- Alber Battery Xplorer Enterprise Software Scope of Work, Basic Service