BATTERY MONITORING SYSTEM [BMS]

Client: Pothigai Power

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Sertel Battery Monitoring System – T-BMS-300

Battery Monitoring System is becoming very essential to any data center facility. Non-monitoring of healthiness of battery is leading to the single biggest cause of data center outages. UPS is completely depended on the battery source which will provide backup power with help of this energy-storing battery bank subsystem.

If battery bank is unreliable, it is very difficult to maintain "uninterruptable" powers, which will lead to downtime with significant financial losses, damage to companies' reputations and reliability of the datacenter service provider.

Existing Testing Method of Batteries in bank :

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Generally, all datacenters will have huge capacity of battery banks cascaded with huge number of individual batteries to maintain power source, in existing setup it is very difficult for an operator to check and monitor the voltage, current and other parameters of each battery in a battery bank. Currently operator has to measure with the help of multimeter across individual battery.

This scenario can be overcome by installing Sertel – Battery Monitoring System [T-BMS-300] effectively makes it possible to check the healthiness of the batteries and the UPS will perform in efficient way during a power outage. This eliminates the risk when the critical equipment's is operating with UPS backup.
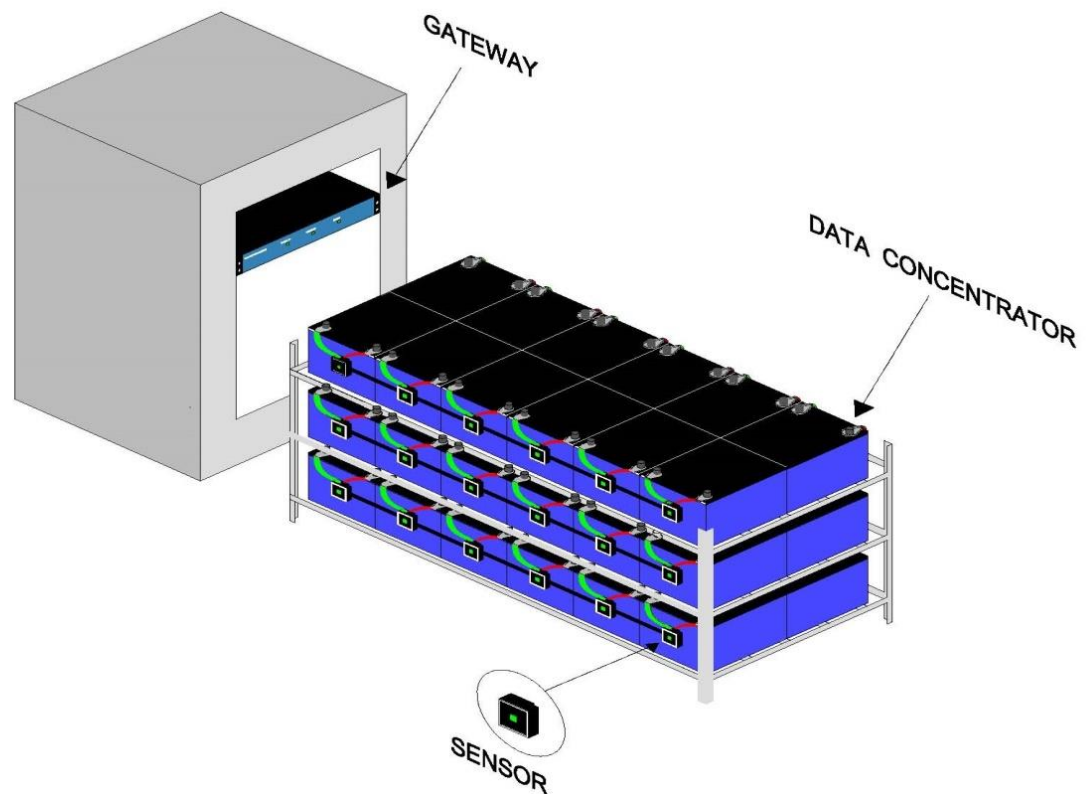
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T-BMS-300 is to monitor the operational and performance of batteries. It is required in order to monitor the operational system, performance and battery life such as charge and discharge process. Battery monitoring system consists of measuring devices to measure parameters such as battery voltage, current, and temperature. All these data's are collected and stored in inbuilt database and the same can be viewed on webhost (default IP address: 192.168.0.254) through Ethernet communication.

This battery monitoring system measures the real-time voltage of the battery and uses it to estimate its state of charge. These battery monitors require a shunt to be installed on the negative side of the battery terminal. The shunt measures the real-time current of the battery bank.

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SERTEL

Software

24/7 Real-Time Monitoring

Report for Battery Function

Remote Analytics and Reporting

Gateway

Data Concentrator

Sensor

T-BMS-300 Battery Monitoring System assure the performance of the backup battery power system, it will also reduce UPS battery maintenance and replacement cost. Ineffective and expensive manual testing on a quarterly basis can be eliminated. With a T-BMS-300 system, battery replacement decisions are based on data and predictive analytics rather than fear of failure. As a result, battery life is extended by up to 65%.

Given the importance of the battery subsystem, monitoring the health of UPS batteries is vital if data center managers are to minimize the risk of both premature and unexpected end-of-life battery failures

A cell or battery may have the desired voltage when it has been sitting on float charge, but it might not have enough stored energy to support the critical load for more than a few minutes or even seconds.

Therefore, it's important to take a range of measurements, which can include: individual battery voltage, impedance and temperature, string current, ambient temperature and ripple current.

Thank you and looking forward to your valuable order.