

Battery Monitoring

Backup power systems are the last line of defence for critical infrastructure. Effective monitoring of these systems involves continuous tracking of battery performance to ensure all batteries are ready for deployment at all times.

Parameter's battery maintenance platform is powered by Cellwatch, an industry leader in monitoring lead-acid and nickel cadmium batteries. Cellwatch Battery Monitoring includes live data from individual cells, expert battery analysis, curated daily notifications, preventative alerts with recommended actions, and monthly reporting on critical units, trending failures, and system issues. With added tools for multi-site monitoring and NERC automated compliance automation, Cellwatch is equipped to empower operations at every scale.

PARAMETER'S SOLUTIONS



Increased Protection

Decrease system vulnerability by safeguarding against cell failure and thermal runaway.



Cost Savings

Reduces manual maintenance costs, outages, and replacements.



Prevent Failure

Increases system reliability by providing actionable data, identifying UPS / charger issues, and predicting battery failures early.



Continuous Monitoring

Integrated Web Control comes at no extra cost and no recurring fees.



Expert Guidance

Data is stored locally to minimize security risks on web-based products.



Flexibility

Adaptable software configuration that can support any system and both online and offline batteries.



Compliance

Compliant with IFC and NFPA battery standards, meets UL 61010, and supports IEEE 1491.



Easy Integration

Easy integration into Modbus TCP/IP and SNMP systems.

Cellwatch Battery Monitoring

Cellwatch Battery Monitoring utilizes advanced measurement techniques to continuously monitor entire battery systems and provide extremely accurate readings throughout charge, discharge, and float periods, allowing for prediction of failure events before they lead to outages.

Cellwatch Central

Cellwatch Central provides a unified battery monitoring solution for large organizations with complex data demands by collecting information from multiple sites, integrating all battery data, and consolidating it into a secure, centralized system.

Cellwatch Frontier

Cellwatch Frontier tests batteries daily to confirm charge and detect performance issues. It helps utilities meet NERC standards and reduce the number of required visits to remote stations by generating automated battery reports and exporting data regularly.

01 Cellwatch Battery Monitoring

BENEFITS

- Operating cost reductions mean ROI is often recognized in 18-36 months.
 - Optimize useful battery life to get maximum utility out of all battery units and defer replacements.
 - Utilize real-time insights and daily reports for battery health, performance, and alert events to improve data-driven decision making.
 - Preemptive battery maintenance helps data centers predict and preclude thermal runaway, meeting IFC 1206.27 and NFPA 70 requirements.
-

APPLICATION

Designed for UPS and data center applications

- VRLA, VLA, NiCad
- 1.2 to 16 volts, Capacity of 28AH (100 Watts) and above
- UPS, Generator, Switchgear, and Communications gear

Monitors

- String and cell level voltage
- Ohmic value
- Current
- Temperature

Notifications

- On-screen
 - Dry Contact
 - Modbus SNMP
-

KEY FEATURES

Integrated Battery Monitoring Units:

The wall or rack-mountable iBMU includes LAN and USB ports for a modem, standard TCP/IP and web browser integration, and an RS232 to RS485 data connector.

Control Unit:

The CU converts RS485 signals to optimal signals for DCM, handles inputs for current transducers and temperature transducers, and houses four volt free alarm contacts.

Thermal Runaway Controller:

The TRC monitors four strings for a thermal event and detects and prevents thermal runaway. It meets IFC standards for string isolation and is TUV Rheinland certified.

Data Collection Modules:

The DCM small solid-state component that connects to 4 cells via fiber optic to measure voltage and ohmic values. Each channel can be 2, 4, 6, or 12 volts.

DCM Accessory Kit:

The DCM accessory kit contains items needed to install 10 DCMs, including a fiber optic cable, rubber boots, cable ties, tie mounts, swabs, and ring tabs.

Temperature Transducer:

The TT measured pilot calls and ambient battery room temperatures. 35 feet in the standard length.

Current Transducer:

The CT measures string currents for discharge and recharge. 35 feet is the standard length.

02 Cellwatch Central

BENEFITS

- Easily monitor large campus and dispersed deployments
 - Analyze battery performance across over 50,000 jars
 - Multiple user authentications for administration, central, and observation
 - Manage battery type, installation data, and maintenance events
-

Our products have been engineered over the decades to ensure unmatched coverage in any mission critical facility.

Find more detailed product information and data sheets on our website.

[PARAMETER-TECH.COM/PRODUCTS](https://parameter-tech.com/products)

02 APPLICATION

| Designed for large multisite enterprises

- Web-based monitoring platform
- Secure local data network connection
- Operation-wide insights

| Monitors

- Cell voltage
- Ohmic value
- Cell temperature
- String temperature
- String voltage
- Discharge alarms
- Thermal runaway conditions
- Ripple voltage

| Notifications

- Email
- On-screen
- Dry Contact
- Modbus SNMP

KEY FEATURES

- Real-time battery performance across sites, down to the cell level.
- Remote system control at operational and administrative levels from.
- Global alarm data consolidated and organized across all operations.
- In-depth automated reporting customized per user.

03 Cellwatch Frontier

BENEFITS

- Increased uptime during power outages
- Decrease battery replacement costs
- Reduced site visits and maintenance costs
- Increased visibility of battery backup

APPLICATION

| Designed for Small DC strings

- VRLA, VLA, NiCad
- DC specialization (48-120V systems)
- UPS, Generator, Switchgear, and Communications gear
- 20-150 volts DC
- 100-240 volts AC
- 1-4 64DCMS. Per system total

| Notifications

- On-screen
- Dry Contact
- Modbus SNMP
- DNP3

| NERC compliance enhancement features

- Inspection of unit condition by monitoring cell/unit internal ohmic values
- Verification of intercell and terminal connection resistance
- Unique connection technique ensuring post to post measurement
- Evaluation relative to baseline of battery cell/unit measurement indication of battery performance
- Electrolyte monitoring
- Verification of station DC supply voltage
- Verification of battery continuity
- NERC audit report generation

| Monitors

- Cell voltage continuously
- High resolution
- Cell Internal Ohmic value daily
- Strap resistances daily
- DC charger cable resistances daily

03 KEY FEATURES

| Interfaces

- DNP3, SNMP, Modbus for SCADA integration
- USP port for on-site administration
- Web pages for remote management

| Availability

- Greater than 99.999% availability factor
- Virtually zero gaps in operational visibility

| Flexibility

- Supports 2-16 volt cells configured for short or long-duration discharge
- Customizable setup to accommodate site variations

Our products have been engineered over the decades to ensure unmatched coverage in any mission critical facility.

Find more detailed product information and data sheets on our website.

[PARAMETER-TECH.COM/PRODUCTS](https://parameter-tech.com/products)