E-BOOST Datasheet

ctrlX World

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Metering and Data Acquisition

Real-time Data Acquisition

Collects real-time and historical energy, environmental, and operational data from a diverse range of sources, including utility meters, submeters, on-site generation assets, and IoT sensors. Supports various energy carriers such as electricity, gas, and water across all sites.

SPECIFICATIONS:

Meter Compatibility: Wide range of utility meters, submeters, on-site generation assets, and IoT sensors.

Measurement Data Points:

- **Electricity:** energy, power, currents, voltages, power factor, cos Phi.
- **Thermal Energy (Cold, Heat):** temperatures.

Sampling & Historicization: configurable rates according to specific use cases, enabling real-time granular insights.

Data Processing & Validation

Seamlessly collect and consolidate data across multiple channels.

SPECIFICATIONS:

Multiple channels for data collection and transmission: flexible and multiple channels for data communication.

Secure Storage & Access

Utilizes cloud-based storage equipped with robust security features, ensuring compliance with stringent data protection standards.

SPECIFICATIONS:

Storage Type: Cloud-based secure environment.

Security: Robust security features and compliance with strict data protection standards.

Energy Performance Monitoring

Dashboards & Visualization

Transforms complex data into actionable insights through an intuitive, user-friendly dashboard, providing an at-a-glance understanding of plant energy performance and critical assets.

SPECIFICATIONS:

Real-time Dashboard: Configurable cockpit for real-time overview of key energy-producing and consuming assets.

Asset Visualization: Predefined templates for common assets (Boiler/Dryer, PV Plant and Heat Pump, Electric assets).

Asset Status: configurable status (on/off/idle) based on consumed power

Data Reporting: Counters for Energy

Real-Time Monitoring & Alerts

Tracks consumption and performance metrics in real time and gets notified when the system identifies anomalies or unexpected spikes.

Historian

Extracts operational data from the cloud-based secure environment to provide context and reference for detailed analysis and comparisons between different assets or periods.

SPECIFICATIONS:

Data availability and visualization: ability to view historical data from initial installation, easy navigation between periods, and immediate comparison of different operational data sorted by asset and process
Dual availability of historical data: availability of historical data in chart form with detailed trends over time and in tabular/graphical form of daily and monthly aggregate data.

Energy Advanced Performance Monitoring and Management

Site & Asset Level Insights

Provides automated detection of asset condition in real-time using advanced algorithms.

SPECIFICATIONS:

Energy Twin: Automatically creates an energy twin at the asset-level with advanced algorithms for simulating normal energy consumption profiles, promoting alerts for review by key users.

Asset Health Monitoring

Energy Twin-Based Asset KPIs

Monitors how an asset's energy usage correlates with standard performance benchmarks.

SPECIFICATIONS:

Energy-Aware Anomaly Tracker: Real-time check of process and asset health status using only energy consumption measurement devices, eliminating the need for additional sensors.

Energy-Aware Healthy behaviour identification: Definition of "healthy" behavior corridors based on historical energy consumption data (at least 2 weeks of training). Generates alerts if an asset behaves outside the healthy corridor.

Early Failure Detection

Identifies anomalies that may indicate developing faults, allowing for preemptive maintenance and minimizing downtime.

Specifications:

Real-time Anomaly Detection / Condition Index: Identification of operating anomalies for each monitored asset through "healthy" behavior corridors based on historical energy consumption data (at least 2 weeks of training). Warning messages enable timely actions, reducing the risk of failure and minimizing downtime.