Optergy Insights

Optergy Axon

Optergy Axon is a powerful, IoT platform that is purpose built for reliability and performance in both the Building Automation and Industrial IoT markets. Axon delivers real-time visualization, monitoring, control, and reporting through the Optergy Insights platform pre-installed at the edge. Getting a BMS or EMS into your building has never been this easy.

CORE INSIGHTS FEATURES

BACNET IP AND MODBUS
BACnet IP and Modbus combined offer the best interoperable solution with minimal integration effort. Optergy Axon supports BACnet IP and Modbus TCP with two onboard RS-485 communication ports used for BACnet MS/TP or Modbus RTU devices.

COMBINED EMS/BMS REPORTING
Energy metering and reporting.
Optergy Insights's flexible reporting system contains pre-packaged reports with specified time periods. It allows the simple generation of custom reports, with multiple output options such as web, PDF and CSV. These can be automatically emailed at predetermined intervals.

PUBLIC DISPLAYS
Scrolling public displays are supported by a list of accessible URLs which are displayed in order for a predetermined time. Optergy Axon supports an unlimited number of public displays on a per-user basis allowing you to communicate with building users.

TRENDS, ALARMS, SCHEDULES AND CALENDARS
Users can create trends, alarms, schedules and calendars.Trend graphs can be modified to view multiple trends and view over a defined time interval. Users will be able to view a list of all alarms, with the ability to acknowledge and/or to clear. Multiple schedules can be linked to a calendar that overrides standard schedule entries.

EMAIL NOTIFICATION WITH ESCALATION AND ACKNOWLEDGMENT
Alarm notifications and saved reports can be automatically emailed at a pre-defined frequency to any user with email credentials. If alarms are not acknowledged, Optergy Proton escalates alarms to any number of predetermined recipients after a user defined time period has elapsed.

BUILT-IN WEB BASED TOOLS
Display tool to develop customised graphic interfaces.
All the necessary web based tools to customise, configure, and program are included with a built-in help file.

UNLIMITED USERS
Unlimited users with complete administrative configurations.

Automated Building Management

Automated Energy Management

Automated Facility Management
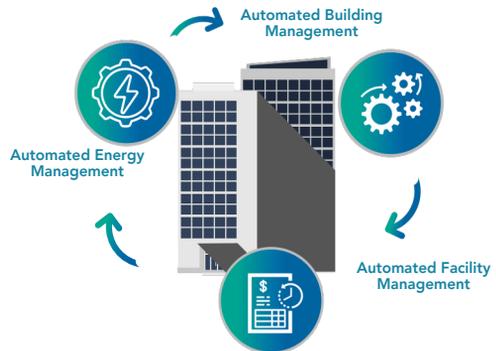
OPTIMISATION FEATURES

OPTIMUM START POINTS
Calculates the optimal plant start time to ensure the building achieves temperature when the occupied period begins.

DEMAND LIMITING
Reduce the amount of energy consumed by your devices during peak periods. This feature allows the user to create and arrange analog or binary load controls.

FACILITY MANAGEMENT FEATURES

TENANTS
Tenants are building occupants who usually pay for their own utility needs. Tenants can have their profile entered into the system and attached to a space.

UTILITY BILLING
Tenant spaces can be linked to utility meters with automatic billing. Invoices contain the energy and cost details as well as payment instructions.

AFTER HOURS BILLING
Tenants may create after hours scheduling events that incur energy use charges. This feature can log events, create after hours usage invoices and automatically notify the tenants.
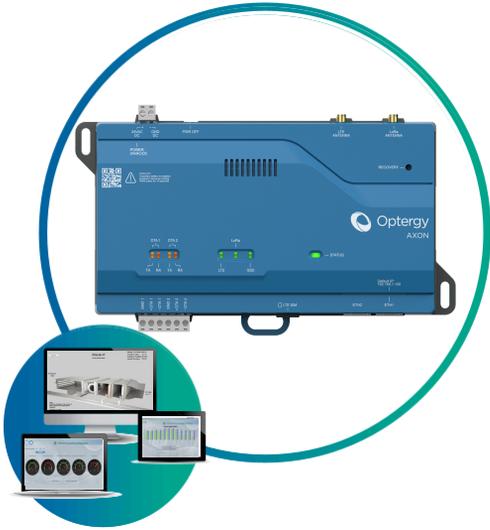
Insights Licencing for Axon	Axon 10	Axon 20	Axon 50	Axon 100	Axon 200
Devices (BACnet/Modbus/Meters)	10	20	50	100	200
Optimum start points	10	20	50	100	100
Demand limiting points	10	20	50	100	100
Weather & Forecast	✓	✓	✓	✓	✓
Public displays	✓	✓	✓	✓	✓
Tenants	1	2	5	10	10
Utility billing	✓	✓	✓	✓	✓
After hours billing	✓	✓	✓	✓	✓

HARDWARE SPECIFICATIONS

Model	Axon-V1
Processor	ARM Cortex-A76 2.4GHz + Cortex-A55 1.8GHz (8 Cores Total)
Ethernet	2 * Gigabit Ethernet Port supporting different IP subnets
Storage	512GB NVME SSD + 2nd optional NVME Slot
RAM	8GB LPDDR4x
Terminals	1x Power Terminal, 1x Serial Port Terminal
RS-485 Ports	2xRS-485 Ports (9.6K, 19.2K, 38.4K, 76.8K, 115.2K)
Power	2-Pin Terminal, 24VAC or 24VDC (Class 2)
Operating Temp	-4°F (-20°C) to +140°F (+60°C)
Storage Temp	-40°F (-40°C) to +185°F (+85°C)
Humidity	0 to 95% RH (non-condensing)
LTE	1 * 4G LTE Cat 4 (Nano-Sim), LTE-FDD: B1/22 /3/4/5/7/8/28; LTE-TDD: B40; WCDMA: B1/2/4/5/8 ; GSM: B2/3/5/8
Lora (Optional)	Semtech Network's SX1302 LoRaWAN® Support 8-channeldata transmission (SX1250 TX/RX)
RTC	Real Time Clock supported via Super Capacitor for up to 5 days
Battery Add-on	Supports optional 18650 Lithium-Ion Battery for Battery Backup
Country of Origin	Mayalsia

Agency Certifications

UL LISTED
E507611

Operating Control, Network Energy Management Controller
Purpose of Control: Network Energy Management Controller
Construction of control: Independently Mounted Control for Surface Mount or DIN Rail
Impulse Voltage: 330V
Pollution Degree: 2
SELV Levels: 24V
Automatic action: Type 1 Action

HARDWARE DIMENSIONS