

Alerton Integration Engine A3-E

Features and highlights

- Embedded Power PC platform @ 400 MHz.
- Supports open and legacy protocols.
- QNX Real-time Operating System.
- On-board web user interface serves rich presentations.
- Provides stand-alone control, energy management and integration applications within the A3-E series controllers.
- Supports two optional communications boards.
- Data Recovery Services prevents data loss during power interruptions.



Alerton's Integration Engine A3-E is a compact, embedded controller/server platform. It combines integrated control, supervision, data logging, alarming, scheduling and network management functions with Internet connectivity and web serving capabilities in a small, compact platform. The A3-E makes it possible to control and manage external devices over the Internet and present real time information to users in web-based graphical views.

The A3-E is a member of Alerton's suite of Java-based controller/server products, software applications and tools, which are designed to integrate a variety of devices and protocols into unified, distributed systems. Building upon the A-2's success, the A3-E offers faster performance to utilize new Niagara^{AX} features. The A3-E device capacity has been increased by up to 20%.

Alerton products are powered by the revolutionary Niagara^{AX} Framework, the industry's first software technology designed to integrate diverse systems and devices into a seamless system. Niagara supports a wide range of protocols including LonWorksTM, BACnetTM, MODbus, oBIX and Internet standards. The Niagara^{AX} Framework also includes integrated network management tools to support the design, configuration, installation and maintenance of interoperable networks.

The A3-E is ideal for smaller facilities, remote sites, and for distributing control and monitoring throughout large facilities. Optional input/output modules can be plugged in for applications where local control is required. The A3-E also supports a wide range of field busses for connection to remote I/O and stand-alone controllers. In small facility applications, the A3-E is all you need for a complete system.

The A3-E serves data and rich graphical displays to a standard web browser using an Ethernet LAN or remotely over the Internet. In larger facilities, multi-building applications and large-scale control system integrations, Niagara^{AX} SupervisorTM software can be used to aggregate information (real-time data, history, alarms, etc.) from large numbers of A3-Es into a single unified application.

Alerton Integration Engine A3-E

Ordering Information - Base Unit and Memory Upgrade Option

Part Number	Description
A3-E	Base Unit including two Ethernet ports, one EIA-232 port, and one EIA-485 port. Web User Interface and Niagara Connectivity included. oBIX Client/Server driver included.
I-NPM-256	Memory Upgrade option. Upgrades A3-E JAVA Heap from 24MB up to 96MB

Ordering Information - Optional Communications Cards

Part Number	Description
NPB-LON	Optional 78 Kbps FTT10 A Lon Adapter
NPB-232	NPB-232 - Optional EIA-232 port adapter with 9 pin D- shell connector
NPB-2X-485	Optional dual port EIA-485 adapter; electrically isolated

Ordering Information - Power Supply & Optional Power Modules

Part Number	Description
A-NPB-PWR	Optional: 24 Volt AC/DC power supply module, Din Rail mounted
WPM-US	120 Vac, 50-60 Hz. US
WPM-EUR	230 Vac. 50-60 Hz. Europe/Asia
WPM-UK	WPM-UK - 230 Vac 50-60 Hz. UK
A-NPB-PWR-UN	Optional universal voltage input power supply module, Din Rail mounted. Input voltage is 90-263 Volts AC, 50/60 Hz auto adjusting. Acceptable for ambient temperatures between 0-50 °C

Ordering Information - AIE 3 & 6 IO Modules

Part Number	Description
A-IO-16	A3-E and A6-E Only - Includes 8 Universal Inputs, 4 Form A Relay Outputs, and 4 0-10 VDC Analog Outputs. Contains removable screw terminal connectors, and status indication LEDs. Intended for DIN rail mounting.
A-IO-16-485	Includes 8 Universal Inputs, 4 Form A Relay Outputs, and 4 0-10 VDC Analog Outputs Contains removable screw terminal connectors, and status indication LEDs. Intended for DIN rail mounting. Note: Up to 4 remote IO-16-485 modules max per JACE 3E (JACE 6E, 7 and JACE 8000 can support up to 16).
A-IO-34	A3-E and A6-E Only - Includes 16 Universal Inputs, 10 Form A Relay Outputs, and 8 0-10 VDC Analog Outputs. Contains removable screw terminal connectors and status indication LEDs. Intended for DIN rail mounting. This IO-34 also contains an on-board 24V AC/DC power supply.

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Technical data

Platform

- Power PC 405EX 400MHz processor
- 256MB SDRAM & 128MB Flash Memory
- Data Recovery Services with SRAM
- Real-time clock

Operating System

- QNX RTOS
- Oracle Hotspot JAVA VM
- NiagaraAX 3.7.106 or later
- Niagara 4.0 Ready

Communications

- 2 Ethernet Ports – 10/100 Mbps (RJ-45 Connectors)
- 1 EIA-232 Port (9 pin D-shell connector)
- 1 EIA-485 non isolated port (3 Screw Connector on base board)

Chassis

- Construction: Plastic, din rail or screw mount chassis, plastic cover
- Cooling: Internal air convection
- Dimensions: 6.313" (16.04 cm) W x 4.820"(12.24 cm) H (including connectors) x 2.438" (6.19 cm) D

Environment

- Operating temperature range: 0-60 °C (32 to 140 °F)
- Operating temperature range: 0-50 °C (32 to 122 °F) w/ optional battery kit
- Storage Temperature range: 0 to 70 °C (32 to 158 °F)
- Relative humidity range: 5 to 95 %, non-condensing

Agency Listings

- RoHS Compliant
- BTL
- UL 916
- C-UL listed to Canadian Standards Association (CSA) C22.2 No. 205-M1983 "Signal Equipment"
- CE
- FCC part 15 Class B
- C-tick (Australia)

RoHS
Compliant



Specifications subject to change without notice