



ALARM SAF

BEACON Power Management

INTEGRATING FIRE AND ACCESS

BN4-003-APD8-UL 12/24 VDC, 4 Amp, 8 or 16 Output Fire/Access Power Management System



12/24 VDC, 4 Amp regulated power supply with advanced power distribution module designed to manage power in access control and fire systems for full integration of life-safety building systems.

Unique and versatile, this off-line switching power supply features supervised outputs, broad fault detection and reporting, FACP egress control, interface to FACP addressable modules, battery presence supervision and continuous monitoring of internal system and battery charging operations. The system also provides 8 or 16 relay controlled, individually PTC power limited and programmable outputs.

Applications include Fire Alarm Interface (FAI) for emergency egress, elevator recall and alarm monitoring, power for access control systems, FACP, auxiliary devices and door electronics and mag lock control.

UL Listed to the latest releases of UL 1481, UL 294. Optional system accessory modules available.

AGENCY LISTINGS

- UL1481
- UL294

CODE COMPLIANCE

- NFPA 72
- NFPA 731
- CSFM
- NY MEA
- NEC Article 725, Class 2 Power Limiting
- FCC Part 15, subpart B, class A

GENERAL SYSTEM FEATURES

- 12/24 VDC, user selectable
- Multiple power supply outputs individually fused and supervised
- 8 or 16 individually programmable power distribution outputs, Class 2 power limited
- High surge current capability
- Continuous monitoring of:
 - Internal System Operation
 - Battery Charging System
- Short circuit protection
- Thermal protection
- Dual rate controlled current battery charging
- Solid state battery transfer
- Visual fault & status indication
- Relay fault output
- Reverse polarity protection
- Minimal current draw in standby mode
- Surge current available for initial activation of:
 - Magnetic locks
 - Smoke dampers
 - Door holders
- Battery presence supervision or optional battery presence disconnect
- Zero voltage drop on battery transfer
- Instant switch over to battery standby
- Interface to FACP addressable modules through either:
 - Voltage output
 - Relay output
 - Open collector output
- Limited lifetime warranty

POWER DISTRIBUTION FEATURES

- 8 or 16 Class 2, Power limited outputs, PTC protected
 - Independently programmable
 - Relay Controlled
- Latching or non-Latching Fire Alarm Interface (FAI)
- Visual Status Indication

INSTALLATION / SERVICE FEATURES:

- Removable terminal strips
- Connector for primary AC input allows for safe disconnect
- Tamper switch included

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POWER SUPPLY SPECIFICATIONS

Input specifications:

- Input voltage: 120 VAC or 230 VAC
- Input current: 1 A maximum
- Input voltage frequency: 60 Hz

Output specifications:

- Output voltage: 12 or 24 VDC, user selectable
- Output current rating: 8 A @ 12 VDC or 4 A @ 24 VDC
- Ripple: < 1 % RMS
- Current draw in standby mode: < 60 mA
- Electronically regulated and filtered output

Output Configurations:

- 1 constant DC output
- 1 FACP controlled output; energized on FAI
- 1 FACP controlled output; de-energized on FAI

Fire Alarm Interface (FAI) Requirements:

- Trip voltage range: 9 to 33 VDC
- Current draw from FACP: 4 to 15 mA

Temperature Ratings:

- Operating temperature: 0 C° to 49 C°
- Humidity: 93% @ 32 C°, indoor, dry
- BTU/hr: 71

Battery Back-up Specifications:

- Battery charge chemistry: sealed lead acid rechargeable
- Maximum battery charge capacity: 36 Ah

Fault Detection; Relay Contact Output:

- Low/No AC
- High/Low DC
- Blown fuse
- Battery presence

Visual Indicators:

- System trouble: Yellow LED
- AC power: Green LED
- AC trouble: Yellow LED
- Constant DC output OK: Green LED
- FACP controlled output OK: Green LED
- FAI activated: Red LED
- Reversed battery: Yellow LED

POWER DISTRIBUTION SPECIFICATIONS

- 8 or 16 outputs, individually programmable for:
 - Fail Safe
 - Fail Secure
 - Form "C" Relay Contact
 - Constant Voltage for Auxiliary devices
 - Fire Alarm Interface (FAI)
- 8 or 16 inputs, individually programmable for:
 - Negative or Open Collector Trip
 - Positive Trip
 - Isolated Trip
- Lock Output Current: Power Limited @ 1.6 A per output, PTC protected
- Lock Input trip current: .03 A per input
- Lock Relay contacts rated @ 28 VDC, 12 A

Visual status indicators:

- Input Activation: Red LED per input
- Control Voltage Presence: Green LED
- Fire Alarm Interface (FAI) status: Green LED

MECHANICAL SPECIFICATIONS

BN4-003-APD8-UL:

- Vented cabinet: 11"L x 15"W x 4"D, 15 lbs

BN4-004-APD8-UL:

- Vented cabinet: 15"L x 18"W x 4"D, 21 lbs

BN4-004-APD16-UL:

- Vented cabinet: 15"L x 18"W x 4"D, 23 lbs

APPLICATIONS

Fire System Applications:

- Fire alarm interface for emergency exit
- Smoke detectors (re-settable)
- Door holders
- Auxiliary equipment
- Elevator recall
- Smoke dampers
- Mass Notification Systems

Access Control Applications:

- Access control system power
- Fire alarm interface for emergency exit
- Door strikes
- Mag locks
- Card readers
- Proximity readers

ORDER INFO

ORDER NUMBER	MODEL NUMBER	DESCRIPTION
10007	BN4-003-APD8-UL	12/24 VDC 4 A power supply 8 power limited outputs key lockable cabinet
10008	BN4-004-APD8-UL	12/24 VDC 4 A power supply 8 power limited outputs large key lockable cabinet
10058	BN4-004-APD16-UL	12/24 VDC 4 A power supply 16 power limited outputs large key lockable cabinet
10001	BN4-000-UL	12/24 VDC 4 A power supply replacement board
02827	APD8-BD	8 power limited outputs advanced power distribution replacement board



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