



ALARM SAF

BEACON Power Management

INTEGRATING FIRE AND ACCESS

BN4-00X-UL

12/24 VDC, 4 Amp

Fire/Access Power Management System



12/24 VDC, 4 Amp regulated power supply 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.

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
- FCC Part 15, subpart B, class A

GENERAL SYSTEM FEATURES

- 12/24 VDC, user selectable
- Multiple power supply outputs individually fused and supervised
- 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
- 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
- Battery presence supervision or optional battery presence disconnect
- Limited lifetime warranty

INSTALLATION / SERVICE FEATURES:

- Removable terminal strips
- Connector for primary AC input allows for safe disconnect
- Automotive Blade Fuses for improved reliability
- Tamper switch included
- Small cabinet for reduced wall space
- Lightweight

BN4-00X-UL 12/24 VDC, 4 Amp

Fire/Access Power Management System

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

MECHANICAL SPECIFICATIONS

BN4-002-UL :

- Vented cabinet: 12" L x 12" W x 4" D, 10 lbs
- Battery space: two 7 Ah or two 12 Ah batteries

BN4-003-UL :

- Vented cabinet: 11" L x 15" W x 4" D, 15 Lbs
- Battery space: two 7 Ah or two 12 Ah batteries

BN4-004-UL :

- Vented cabinet: 15" L x 18" W x 4" D, 21 Lbs
- Battery space: three 7 Ah or 12 Ah batteries or two 17 Ah batteries

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 NUMBER	MODEL NUMBER	DESCRIPTION
ORDER INFO		
10004	BN4-002-UL	12/24 VDC, 4 A power supply Key lockable cabinet
10072	BN4-003-UL	12/24 VDC, 4 A Power Supply Large Key Lockable Cabinet
10073	BN4-004-UL	12/24 VDC, 4 A Power Supply Extra Large Key Lockable Cabinet
10001	BN4-000-UL	12/24 VDC, 4 A power supply replacement board
SYSTEM ACCESSORY MODULES		
10041	PD8	8 PTC outputs, power distribution board
10042	PD8F	8 fused outputs, power distribution board
10067	MB8	8 PTC outputs, Multi-Buss, power distribution board
10068	MB8F	8 fused outputs, Multi-Buss, power distribution board
10069	CMB8	4 relay controlled and 4 selectable PTC outputs, Multi-Buss power distribution board
10070	CMB8F	4 relay controlled and 4 selectable fused outputs, Multi-Buss power distribution board
10066	SPS4	Secondary power source module



ALARM SAF

6 Ledgerrock Way, Unit 7, Acton, MA 01720, 978.658.6717, www.alarmsaf.com