



**ALARM SAF**

**BEACON Power Management**

INTEGRATING FIRE AND ACCESS

# BN86-004-CPD16F-UL 12/24 VDC, 8/6 Amp, 16 Output Dual Fire/Access Power Management System



**Dual 12/24 VDC, 8/6 Amp** regulated power supply with advanced power distribution modules designed to manage power in large access control and fire systems for full integration of life-safety building systems.

**Unique and versatile**, this system provides 2 independent, 12/24 VDC, regulated off-line switching power supplies; one 8 Amp and one 6 Amp. Both feature 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 16 total outputs; 8 relay controlled, individually fuse protected and programmable and 8 or 16 individually fuse protected only.

**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

- Two independent power supplies, each user selectable for 12/24 VDC
- Multiple power supply outputs individually fused and supervised
- 16 or 24 power distribution outputs
  - 8 relay controlled, individually programmable, fuse protected
  - 8 or 16 individually fuse protected
- 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 presencedisconnect
- 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

## POWER DISTRIBUTION FEATURES:

- 16 or 24 power distribution outputs
  - 8 or 16 individually fuse protected
  - 8 relay controlled, individually fuse protected
    - independently programmable
    - latching or non-latching Fire Alarm Interface (FAI)
- Visual Status Indicators

## INSTALLATION / SERVICE FEATURES:

- Removable terminal strips
- Connector for primary AC input allows for safe disconnect
- Automotive Blade Fuses for improved reliability
- Tamper switch included

# BN86-004-CPD16F-UL 12/24 VDC, 8/6 Amp, 16 Output Dual Fire/Access Power Management System

## POWER SUPPLY SPECIFICATIONS

**NOTE: Dual system provides two independent power supplies, with the following specifications:**

### Power Supply #1 Specifications

- Input current - 2.1 A maximum
- Output current rating - 16 A @ 12 VDC or 8 A @ 24 VDC
- BTU/hr - 128

### Power Supply #2 Specifications

- Input current - 1.6 A maximum
- Output current rating - 12 A @ 12 VDC or 6 A @ 24 VDC
- BTU/hr - 99

## Common Specifications

### Input specifications:

- Input voltage: 120 VAC or 230 VAC
- Input voltage frequency: 60 Hz

### Output specifications:

- Output voltage: 12 or 24 VDC, user selectable
- 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

### 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

### Advanced power distribution outputs

- 8 outputs, individually programmable for:
  - Fail Safe
  - Fail Secure
  - Form "C" Relay Contact
  - Constant Voltage for Auxiliary devices
  - Fire Alarm Interface (FAI)
- 8 inputs, individually programmable for:
  - Negative or Open Collector Trip
  - Positive Trip
  - Isolated Trip

- Lock Output Current: 3 A per output, fuse 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

### Power distribution outputs

- 8 or 16 individually fused outputs
- Output current: 3 A per output, fuse protected

## MECHANICAL SPECIFICATIONS

BN86-004-CPD16F-UL & BN86-004-CPD24F-UL

- Vented cabinet: 15" L x 18" W x 4" D, 25 lbs  
BN86-009-CPD16F-UL
- Vented cabinet: 20" L x 24" W x 5" D, 35 lbs  
Battery space: three 7Ah, three 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 INFO

ORDER NUMBER	MODEL NUMBER	DESCRIPTION
10033	BN86-004-CPD16F-UL	12/24 VDC 8/6 A power supply 16 fused outputs key lockable cabinet
10057	BN86-009-CPD16F-UL	12/24 VDC 8/6 A power supply 16 fused outputs large key lockable cabinet
10098	BN86-004-CPD24F-UL	12/24 VDC 8/6 A power supply 24 fused outputs key lockable cabinet
10025	BN8-000-UL	12/24 VDC 8 A power supply replacement board
10013	BN6-000-UL	12/24 VDC 6 A power supply replacement board
02828	APD8F-BD	8 fused outputs advanced power distribution replacement board
10042	PD8F-UL	8 fused output replacement module



**ALARM SAF**