

# **BEACON Power Management**

INTEGRATING FIRE AND ACCESS

# BN4S4-004-MB8-UL

# 24 VDC, 6 Amp/12VDC, 4 Amp Multiple Output Access Control Power Management System 8 Class 2 Power Limited Outputs

This unique multiple output power management system provides twoseparate outputs from a single 120 VAC input: 24 VDC, 4 Amp/ 12 VDC, 4 Amp, with 8 Class 2, Power Limited outputs in a single cabinet and will supply regulated and filtered main, standby or auxiliary power to access system panels, readers, ingress/egress security components, and locking devices.

**In addition to essential life safety features**, the system provides many exceptional benefits, including:

- Allows connection of a single 24 Volt battery set for automatic backup of the 24 VDC and 12 VDC system output voltages
- Class 2, power limited power distribution outputs, individually selectable for 12 or 24 VDC devices and Fire Alarm Interface for emergency egress conditions ideal for new and retrofit installations.
- Space available within the enclosure for system batteries (not included).
- Internal plug-in connectors to reduce installation time

The BN4S4-004-MB8-UL is designed for access control and alarm monitoring power applications and can be used with most major access control systems.









# **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 Supply Voltages
- Multiple power supply outputs individually fused and supervised
- 8 Individually selectable, Class 2, power limited outputs
- Short circuit protection
- Surge 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
- Continuous monitoring of:
- Internal System Operation
- Battery Charging System
- 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

#### POWER DISTRIBUTION FEATURES

- 8 Individually selectable, Class 2, power limited outputs
- Easily programmed with removable jumpers
- Visual Status Indicators

# **INSTALLATION / SERVICE FEATURES**

- Removable terminal strips
- Plug-in Connectors for primary AC input and auxiliary modules allows for safe and easy connect/disconnect
- Tamper Switch Included

# BN4S4-004-MB8-UL 24 VDC, 6 Amp/12VDC, 4 Amp Multiple Output Access Control Power Management System with 8 Class 2 Power Limited Outputs

# POWER SUPPLY SPECIFICATIONS

NOTE: Multiple system provides two separate output voltages from a single AC input:

# **System Input specifications:**

- Main Input voltage: 120 VAC or 230 VAC
- Input current: 1.6 A maximum
- Input voltage frequency: 60 Hz

#### **Output specifications:**

- Main Output voltage: 24 VDC
- Main Output current rating: 4 A, continuous
- Auxiliary Output voltage: 12 VDC
- Auxiliary Output current rating: 4 A, continuous
- Ripple: < 1 % RMS
- Current draw in standby mode: < 60 mA
- Electronically regulated and filtered outputs

#### **Output Configurations:**

- Main Power Supply:
  - 1 constant DC output
  - 1 FACP controlled output; energized on FAI
  - 1 FACP controlled output; de-energized on FAI
- Auxiliary Power Supply:
  - 2 Power Limited outputs

#### 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: 99 at full load

#### **Battery Back-up Specifications:**

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

#### **Fault Detection:**

- Main Power Supply; Relay Contact Output:
  - Low/No AC
  - High/Low DC
  - Blown fuse
  - Battery presence
- Auxiliary Power Supply; via Main Fault Relay:
  - HI/LO Output

#### **Visual Indicators:**

- Main Power Supply
  - System trouble: Yellow LED AC power: Green LED
  - AC trouble: Yellow LED
- Constant DC output OK: Green LED
- FAI activated: Red LED
- Reversed battery: Yellow LED
- FACP controlled output OK: Green LED
- Auxiliary Power Supply:
  - Input Voltage: Green LED
- Output Voltage: Green LED
- Fault Detection: Yellow LED

# POWER DISTRIBUTION SPECIFICATIONS

- 8 Class 2, power limited outputs, Individually selectable for:
  - 12 or 24 VDC
  - Enabled or disabled on FAI
  - Continuous output
- Multi-Buss Design:
  - Buss 1: Input Voltage: 24 VDC, supplied from Main Power Supply Input Current: 14 A, maximum
  - Buss 2: Input Voltage: 12 VDC, supplied from Auxiliary Power Supply Input Current: 14 A, maximum
- Lock Output current: 1.6 A per output, PTC protected

#### **Visual Status Indicators:**

- Buss 1 Voltage Present: Green LED
- Buss 2 Voltage Present: Green LED
- FAI activated: Red LED

# **MECHANICAL SPECIFICATIONS**

- Vented cabinet: 15"L x 18"W x 4"D, 25 lbs
- Battery space: three 7 Ah, three 12 Ah or two 18 Ah batteries

# **APPLICATIONS**

- Access control system power for all access control systems
- Fire alarm interface for emergency exit
- Door strikes
- Mag locks
- Card readers
- Proximity readers
- Smart Card readers
- Multi-technology readers
- Smoke detectors (re-settable)
- Door holders
- Auxiliary equipment
- Elevator recall
- Smoke dampers
- Mass Notification Systems

ORDER INFO		
ORDER NUMBER	MODEL NUMBER	DESCRIPTION
10088	BN <b>4</b> S4-004-MB8-UL	24 VDC, 4 A / 12 VDC, 4 A, 8 power limited outputs Large key lockable cabinet
10013	BN <b>6-</b> 000-UL	12/24 VDC,6A power supply replacement board
10066	SPS4	Secondary power source
10067	MB8	8 Class 2, power limited outputs Multi-Buss power distribution board