

Overview

The models APS4B and APS8B are auxiliary power supplies for use with the PCPU or DCPU or IRC-3 modules in applications requiring auxiliary power. Both power supplies are capable of delivering 250 Watts of power. The power supplies are power limited and meet the requirements for power limiting according to NEC 760. Upon loss of primary power or brownout condition, the power supply is transferred to secondary or battery power. The power supply has an integral battery charger capable of charging 60 AH batteries. The front cover of the power supply has a green power LED and an amber Trouble LED. The power supply has a battery saver feature that prevents battery damage caused by a severe deep discharge. Upon loss of primary power, battery power is disconnected if the batteries decline to a value incapable of supporting Fire Alarm Panel functions.

The APS8B contains 24 Vdc outputs that may be connected to the riser input terminals on the CM1(N)(-SG) or CM2(N)(-SG) controllers. The riser inputs are used to power indicating appliances through the ZA4-2 or the ZB8-X series circuit cards. The 24 Vdc outputs also may be configured as 24 Vdc Risers that leave the enclosure to power indicating appliances connected to M500CF, UIO-12, or RZB12-6 modules. The outputs may be connected to remote panels requiring 24 Vdc operating power such as the SAN series annunciators, UIO-12, RZB12-6 or the FCCA audio control panel.

Standard Features

- All outputs power limited
- Fully regulated 24 Vdc
- Built in battery charger
- Low battery protection
- Charges and supervises 60 AH batteries
- Battery saver feature
- Low standby current
- High efficiency switch mode technology
- Ground fault detection with high/low sense
- Power and Trouble LEDs
- Supervises low or no AC power
- Built in transient protection
- Outputs electronically current limited
- Supports up to 3 PCPU or DCPU modules
- Dedicated output for AA75 series amplifiers
- Ground Fault relay contact
- Trouble relay contact
- Full footprint module mounting space
- Single battery charger for multiple supplies

Auxiliary Power Supplies

APS4B, APS8B



APS4B



APS8B



Application

The APS4B and the APS8B power supplies are Auxiliary power supplies. Auxiliary power supplies contain a 24 Vdc output for PCPU or DCPU modules. The supply monitors internal power supply points and provides trouble monitoring to the system. The APS4B or the APS8B power supply contains a 24 Vdc power capable of supplying operating power for up to 3 DCPU or PCPU controllers.

The 24 Vdc outputs from the power supplies may be connected to the riser input terminals on the CM1(N)(-SG) or CM2(N)(-SG) controllers. The riser inputs are used to power indicating appliances through the ZA4-2 or the ZB8-X series circuit cards. The 24 Vdc outputs also may be configured as 24 Vdc Risers that leave the enclosure to power indicating appliances connected to Signature Series modules, M500CF, UIO-12, or RZB12-6 modules. The outputs may be connected to remote panels requiring 24 Vdc operating power such as the SAN series annunciators, UIO-12, RZB12-6 or the FCCA audio control panel.

System battery standby capacities are normally calculated based on national and the regional requirements. Should a system be on batteries longer than the calculated capacities, damage to the batteries can occur due to deep discharge. These power supplies monitor for low battery condition when the system is on battery standby. Should the batteries reach a low charge condition the power supply will cause the system to shut down. This protects the batteries from damage due to deep discharge.

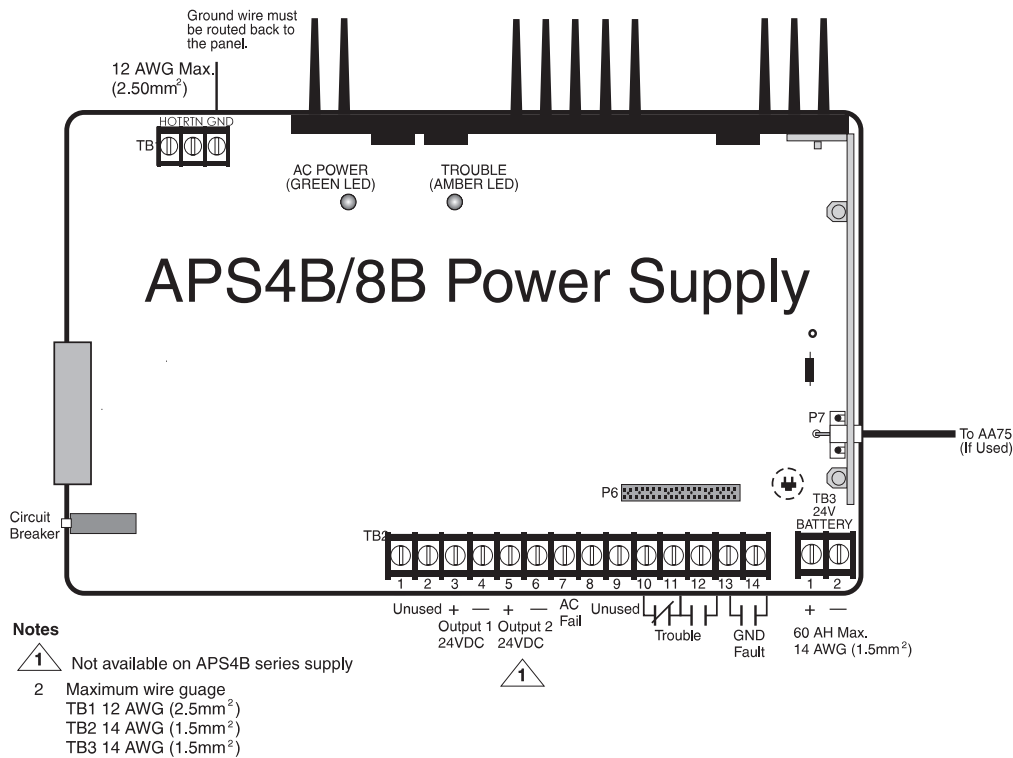
Installation

The APS4B or the APS8B requires a full footprint mounting area. It is installed in the cabinet in any available mounting location. The basic APS4B and the APS8B will fit in the CAB2, CAB3, CAB3F or CAB6F enclosures. If the power supplies are mounted in a CB17, CB31 or CB45, the supplies must be ordered with the RM option.

Engineering Specification

The Life Safety System power supply shall be inherently power limited with built in transient protection. 24 Vdc power shall be generated from 120 Vac or 220 Vac primary power for ancillary devices, indicating devices and internal control panel functions. Ground fault detection circuitry shall be integral to the supply and report any internal fault conditions to the Life Safety System. High efficiency switch mode technology shall be used to reduce battery requirements and heat generation. The supply shall be capable of charging 60 Ampere Hour, sealed Lead-acid type batteries. A battery saver feature shall be employed to prevent battery damage due to excessive deep discharge. Power supply terminals shall be capable of terminating 14 AWG wire.

Connection Diagram



Specifications

Catalog Number	APS4B	APS4B-220	APS8B	APS7B-220
Primary power				
Voltage	120 Vac 50/60 Hz	220 Vac 50/60 Hz	120 Vac 50/60 Hz	220 Vac 50/60 Hz
Current	2 Amp	1 Amp	2 Amp	1.5 Amp
Battery Charger				
Voltage	26.8 Vdc			
Charge current max	4.0 Amps			
Trickle charge	10 mA			
Battery size max.	60 AH			
Outputs				
Output #1	3.5 Amps	3.5 Amps (see note 1)	3.5 Amps	3.5 Amps
Output #2	N/A	N/A	3.5 Amps (see note 2)	3.5 Amps (see note 2)
Amplifier power	3.5 Amps	3.5 Amps (see note 1)	3.5 Amps (see note 2)	3.5 Amps (see note 2)
Standby Current max	2.25 Amps (All outputs combined)			
Alarm Current max	7.5 Amps	6.0 Amps	7.5 Amps	6.0 Amps
Ground Fault Detection	To +24 Vdc or to common			
High sense	47 K Ohms			
Low sense	10 K Ohms			
Temperature Range	0° - 49° C (32° - 120° F)			
Humidity Range	85%, non condensing			
Mounting	Full Footprint module			
Listings	UL, CSFM, MEA, ULC			
Weight	6 lbs (2.73 kg)			

Notes:

1. 220V series supplies provide a total of 6 Amps alarm current from all outputs combined.
2. The APS8B and AP7B-220 give the option of using either output #2 or amplifier power output, but not both at once. The APS7B-220 provides a maximum of 6 Amps in alarm from all outputs combined.

Ordering Information

Model	Description
APS4B	Auxiliary PS, 120 Vac Input, one 24 Vdc output for CAB2, CAB3/F, CAB6F enclosures
APS4B-RM	Auxiliary PS, 120 Vac Input, one 24 Vdc output for CB17, CB31, CB45 enclosures
APS4B-220	Auxiliary PS, 220 Vac Input, one 24 Vdc output for CAB2, CAB3/F, CAB6F enclosures
APS4B-220-RM	Auxiliary PS, 220 Vac Input, one 24 Vdc output for CB17, CB31, CB45 enclosures
APS8B	System PS, 120 Vac Input, two 24 Vdc output for CAB2, CAB3/F, CAB6F enclosures
APS8B-RM	System PS, 120 Vac Input, two 24 Vdc output for CB17, CB31, CB45
APS7B-220	System PS, 220 Vac Input, two 24 Vdc outputs
APS7B-220-RM	System PS, 220 Vac Input, two 24 Vdc outputs

Related Parts Ordering Information

RMOF	Mounting frame for RM option in CAB17, CAB31 or CAB45 enclosures
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