

MPS-24A

Main Power Supply



Power Supplies

General

The MPS-24A is the main power supply for the AM2020, AFP1010, XP Transponder or System 5000 fire alarm control system. The MPS-24A can also be used to power additional system equipment such as the NCA, AMG and ACS series devices. It provides all the necessary internal operating power plus additional power for operation of external alarm Notification Appliance Circuits. A battery charging circuit is included.

Features

- Provides all internal operating power for the system.
- Up to 3.0 A of regulated, filtered alarm notification device power available, compatible with any listed 24 VDC notification appliance or any 24 VDC listed release solenoid.
- Recharges standby batteries up to 55 AH in size.
- Dual-rate charge capability.
- Regulated and filtered four-wire detector power available (depending on the system configuration).
- Trouble LEDs for AC Power Fail, Battery, and Ground Fault conditions.
- Circuit breaker and automatically-resetting PTC resistors protect against current overload.
- Power-limited on all external output power.
- High-efficiency DC/DC converter for FACP internal +5 V power.
- High-efficiency switched regulator for notification appliance power.
- True battery supervision.
- Optional battery backbox holds 55 AH batteries.

Applications

The MPS-24A Main Power Supply provides all of the required internal system operating power, plus 3.0 A of regulated power is available for external use.

Electrical Specifications

Primary Input Power: 120 volts, 50/60 Hz, 1.8 A maximum (220 VAC option, model MPS-24AE).

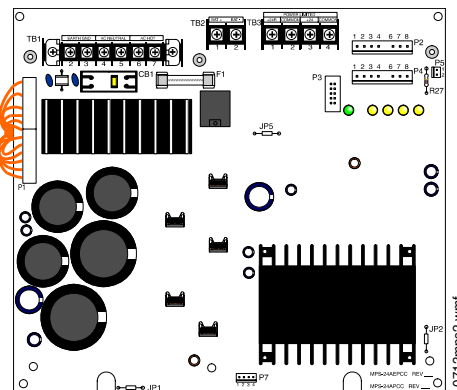
Maximum Loading: of the 24 volt filtered regulated supply is 6.0 A (used for internal and external power where filtered regulated power is required). Up to 3.0 A may be used to power Notification Appliance Circuits (NAC) or ACS Series annunciators.

Battery Charger: 24-volt float type, capable of charging 9 AH to 55 AH batteries.

Brown-out and battery monitors

Trouble Indicators

- AC POWER FAIL (LED #2) Indicates the loss of AC power, low AC line or open circuit breaker
- BATTERY (LED #3) Indicates battery failure
- GROUND FAULT (LEDs 4 & 5) indicates a ground fault condition.



Installation

The MPS-24A power supply is installed in the lower bottom-left corner of the CAB-A3/-A4, CAB-B3/-B4, CAB-C3/-C4, or CAB-D3/-D4 enclosures. Screw terminals are provided for Earth Ground; 120 or 220 VAC; Battery positive and negative; +24 VDC filtered, regulated, resettable power. Plug-in connectors are provided for the Power Ribbon, Power Harness, and AVPS-24 Supervision connection.

Agency Listings and Approvals

These listings and approvals apply to the modules specified in this document. In some cases, certain modules or applications may not be listed by certain approval agencies, or listing may be in process. Consult factory for latest listing status.

- **UL Listed:** S624, BP6480
- **ULC Listed:** CS118/CS733/CBP696 Vol. VII
- **BSA:** 578-81-SA
- **CSFM:** 7165-0028:141; 7165-0028:144; 7170-0028:153; 7170-0028:154
- **FM Approved**
- **City of Denver**
- **City of Chicago** (AM-2020/AFP-1010)
- **Lloyd's Register:** 93/60140(E2) (AM-2020/AFP-1010)
- **U.S. Coast Guard:** 161.002/27/3 (AM-2020/AFP-1010)
- **Bureau Veritas:** # SMS.W.II.H/BV/5429/A.1
- **IRAM:** # S-0379/03-1
- **CCC Approved** (AM-2020)
- **Fire Services Department** (Hong Kong)

Product Line Information

MPS-24A: Main Power Supply. Includes 3.0 A of filtered, regulated audible/visual power.

MPS-24AE: Same as MPS-24A, but requires 220 VAC.

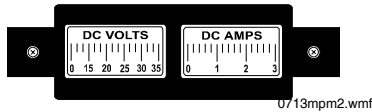
MPS-TR: Optional Main Power Supply Trouble Relay for remote mounting of a stand-alone power supply. UL Listed. Check with factory for additional listings and approvals.

NFS-LBB: Battery backbox, holds up to two BAT-12550 (55 AH) batteries.

NFS-LBBR: Same as NFS-LBB but painted red.

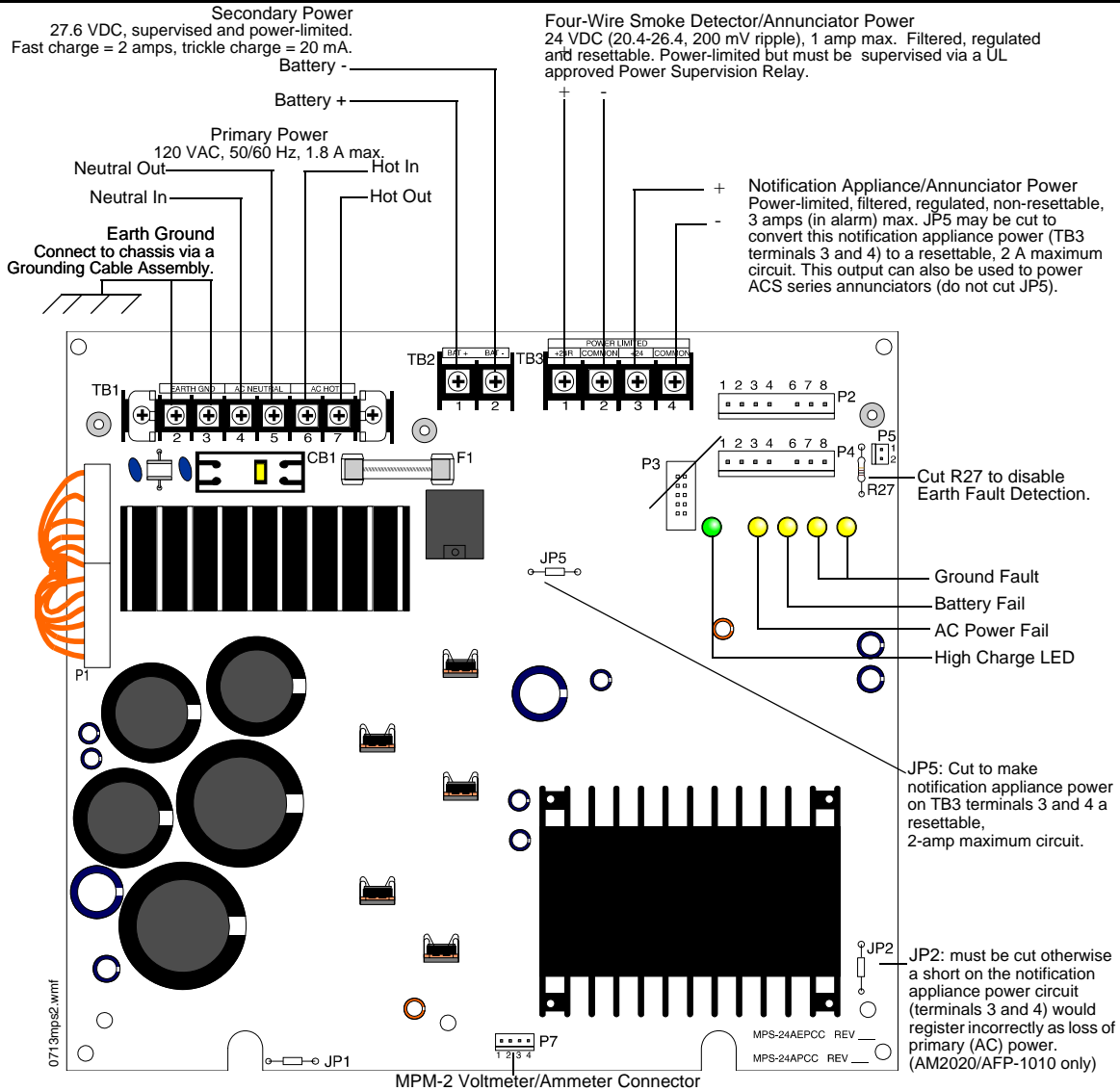
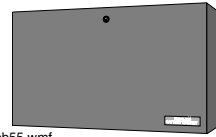
OPTIONAL EQUIPMENT

MPM-2: Main Power Meter for MPS-24A. Includes battery voltage and charging current meters, mounting hardware, and cable.



NFS-LBB(R) BATTERY BACKBOX

Dimensions: Box: 24.0" (61.0 cm) wide x 14.0" (35.6 cm) high x 7.75" (19.7 cm) deep. Door: 24.125" (61.3 cm) wide x 14.25" (36.2 cm) high x (door adds 0.063" [approx. 0.16 cm] to depth).



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This document is not intended to be used for installation purposes. We try to keep our product information up-to-date and accurate. We cannot cover all specific applications or anticipate all requirements. All specifications are subject to change without notice.



For more information, contact Notifier. Phone: (203) 484-7161, FAX: (203) 484-7118. www.notifier.com