



**Fire-Lite® Alarms**  
INCORPORATED

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D-100

## FCPS-24F(E) 24 Volt, 6 Amp Remote Power Supply

Section: Power Supplies/Accessories

### GENERAL

The **Fire-Lite FCPS-24F(E)** is a compact, cost-effective, 6-amp remote power supply with battery charger. The FCPS-24F(E) may be connected to any 12- or 24-volt Fire Alarm Control Panel (FACP) or may stand alone. Primary applications include Notification Appliance (bell) Circuit (NAC) expansion (to support ADA requirements) or auxiliary power to support 24-volt system accessories. The FCPS provides *regulated* and *filtered* 24 VDC power to four Notification Appliance Circuits (two Class A [Style Z] and two Class B [Style Y] or four Class B only). Alternately, the four outputs may be configured as any combination of resettable/non-resettable power outputs (optimal for powering four-wire smoke detectors). The FCPS-24F(E) also contains a battery charger capable of charging up to 7.0 Amp Hour batteries.

### FEATURES

- Requires input trigger voltage of 9.0 - 32 VDC.
- Contains two, fully-isolated input/control circuits (triggered from FACP Notification Appliance Circuit [NAC expander mode] or jumpered permanently on [stand-alone mode]).
- Two Class A (Style Z) or Class B (Style Y) Notification Appliance Circuits (circuits 1 & 3).
- Two additional NACs that may be individually configured for Class B (Style Y) operation only (circuits 2 & 4).
- 6 Amp full load output (3 amps max./ckt.) in NAC expander mode (UL 864).
- 4 Amp continuous output in stand-alone mode (UL 1481).
- In stand-alone mode, output power circuits may be configured as resettable (reset line from FACP required) or non-resettable.
- Fully *regulated* and *filtered* power output (optimal for powering four-wire smoke detectors, annunciators and other system peripherals requiring regulated/filtered power).
- Fuseless, power-limited technology meets new UL power-limiting requirements, effective May 1, 1995.
- Normally closed trouble contact.
- Fully supervised power supply, battery and Notification Appliance Circuits.
- Selectable earth fault detection.
- AC trouble report selectable for immediate, 8 or 16 hour delay.
- Optional ammeter/voltmeter.
- Works with virtually any UL 864 fire alarm control which utilizes an industry-standard reverse-polarity notification circuit.



S2424  
S1287  
(FCPS-24F  
FCPS-24FE)



CS868  
(FCPS-24F)



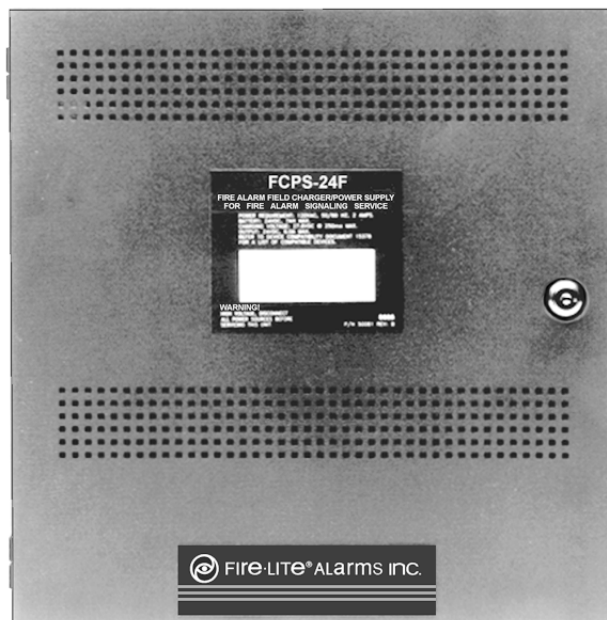
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**MEA**

387-94-E  
(FCPS-24F)



- Self-contained in compact, lockable cabinet (15" [381 mm] H x 14.5" [368 mm] W x 2.75" [70 mm] D).
- Includes integral battery charger capable of charging up to 7.0 AH batteries.
- Fixed, clamp-type terminal blocks accommodate up to 12 AWG (3.25 mm<sup>2</sup>) wire.

### STANDARDS and CODES

The FCPS-24F complies with the following standards:

- **NFPA 72-1996** National Fire Alarm Code.
- **UL 864** Standard for Control Units for Fire Alarm Systems (*NAC expander mode*).
- **UL 1481** Power Supplies for Fire Alarm Systems (*stand-alone mode*).

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 **Fire-Lite**. Phone: (203) 484-7161 FAX: (203) 484-7118



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**ISO-9001**  
Engineering and Manufacturing  
Quality System Certified to  
International Standard ISO-9001



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## SPECIFICATIONS

### Primary (AC) Power

- FCPS-24F: 120 VAC 50/60 Hz, 2.0 A max.
- FCPS-24FE: 220/240 VAC 50/60 Hz, 1.0 A max.
- Wire size: minimum #14 AWG (2.0 mm<sup>2</sup>) with 600V insulation.

### Control Input Circuit

- Trigger Input Voltage: 9.0 to 32 VDC.
- Trigger Current: 2.0 mA (16 - 32 V).  
(per input) 1.0 mA (9 - 16 V).

### Trouble Contact Rating

- 5 amps at 24 VDC.

### Auxiliary Power Output

- Specific Application Power - 45 mA Short Circuit.

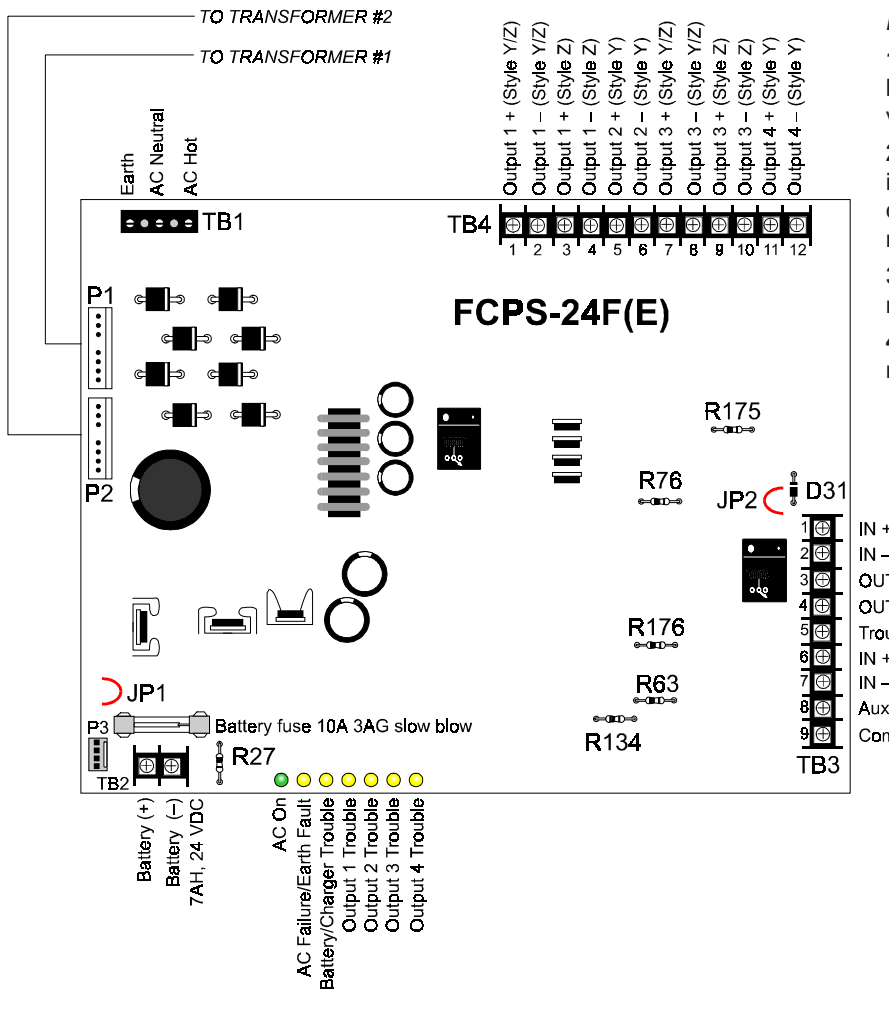
### Output Circuits

- +24 VDC (19.1 - 26.4) filtered, regulated.
- 3.0 amps maximum for any one circuit.
- 4.0 amps maximum total continuous current for all outputs (Stand-alone mode).
- 6.0 amps maximum total short-term current for all outputs (NAC Expander mode).

### Secondary Power (Battery) Charging Circuit

- Supports lead acid batteries only.
- Float Charge Voltage: 27.6V.
- Maximum Charge Current: 250 mA.
- Maximum Battery Capacity: 7.0 AH.

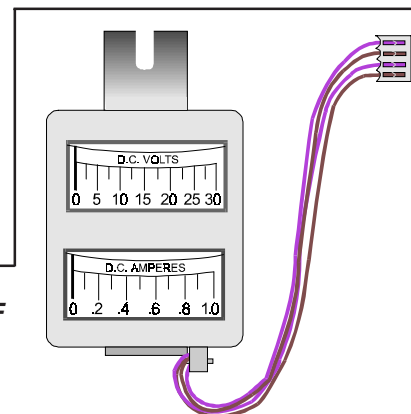
## TERMINAL DESIGNATIONS



### Notes:

- 1) Cut JP1 to use a UL listed external battery charger, **or** MPM-4F ammeter/voltmeter.
- 2) Cut R134 to delay AC loss reporting for 8 hours (24-hour standby), or cut R134 and R76 to delay AC loss reporting 16 hours (60-hour standby).
- 3) Cut R175 to make output #2 non-resettable in stand-alone mode.
- 4) Cut R176 to make output #4 non-resettable in stand-alone mode.

- 1 IN + (Control Input #1 from FACP)
- 2 IN -
- 3 OUT + / Trouble Contact
- 4 OUT -
- 5 Trouble Contact
- 6 IN + (Control Input #2 from FACP)
- 7 IN -
- 8 Auxiliary Output (+24 VDC, 45 mA max.)
- 9 Common



## ORDERING INFORMATION

**FCPS-24F** Remote charger power supply (120 VAC). Includes main printed circuit board, transformers, red enclosure, and installation instructions.

**FCPS-24FE** Remote charger power supply (220/240 VAC). Includes main printed circuit board, transformers, red enclosure, and installation instructions.

**A77-716B**

12/24 VDC end-of-line relay for monitoring 4-wire smoke detector power.

**PS-1270**

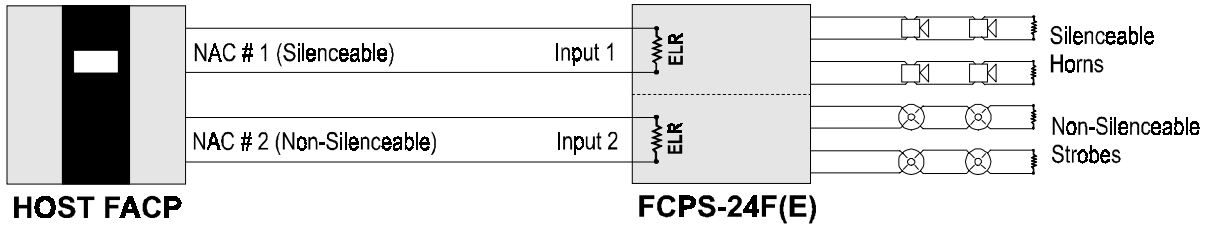
Battery, 12 volt, 7.0 AH (*two required*).

**MPM-4F**

Optional ammeter/voltmeter. Mounts in FCPS backbox.

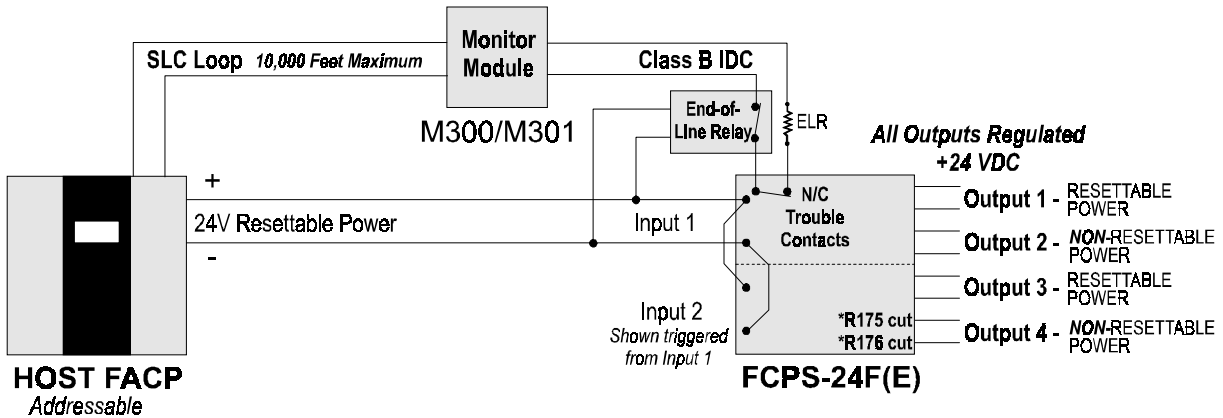
# APPLICATION EXAMPLES

**Example 1.0:** Expand notification appliance power an additional 6.0 amps. Use up to 4 Class B (Style Y) outputs or 2 Class A (Style Z) and 2 Class B (Style Y) outputs.



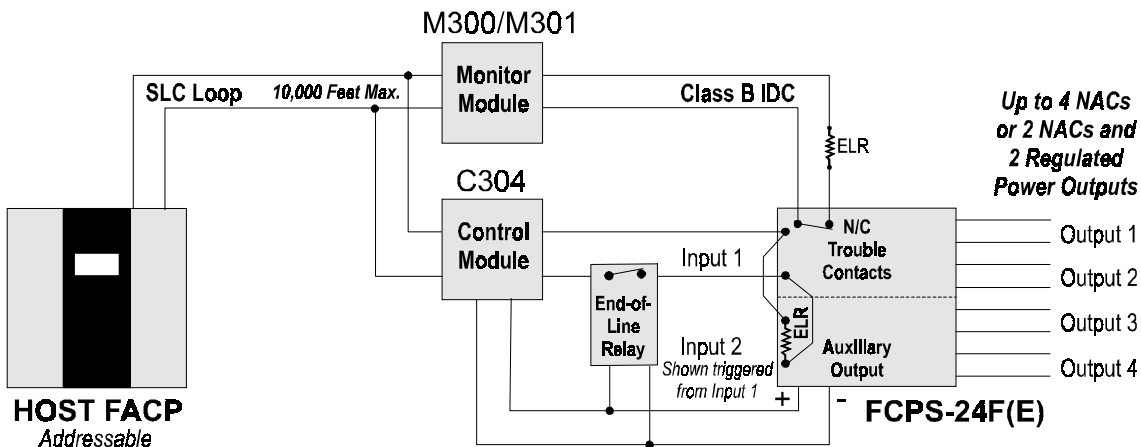
In this example, the FACP notification appliance circuits will activate the FCPS-24F(E) when reverse polarity activation occurs. Trouble conditions on the FCPS-24F(E) are sensed by the FACP through Notification Appliance Circuit #1.

**Example 2.0:** Use the FCPS-24F(E) to expand auxiliary regulated 24 volt system power up to 4 amps. Both non-resettable and resettable power options are available.



Resettable outputs are created by connecting the resettable output from the FACP to one or both of the FCPS-24F(E) inputs. Non-resettable outputs are created simply by cutting on board resistors. For addressable panel applications, use a monitor module to sense the trouble status of the FCPS-24F(E) via the trouble relay contacts.

**Example 3.0:** Use addressable control modules to activate the FCPS-24F(E) versus the FACP Notification Appliance Circuits. This typically allows for mounting the FCPS-24F(E) at greater distances\* away from the FACP while expanding system architecture in various applications.



In this example, an addressable control module is used to activate the FCPS-24F(E) and an addressable monitor module is used to sense FCPS-24F(E) trouble conditions. Local auxiliary power output from the FCPS-24F(E) provides power to the addressable control module.

\*The Fire•Lite MS-9200, 198-point Addressable FACP has the capability of locating control and monitor modules up to 10,000 feet away.