July 20, 2004 DN-6927 • E-30

FCPS-24S6 and FCPS-24S8
6-Amp and 8-Amp 24-Volt Remote Power Supplies

Section: Power Supplies

GENERAL

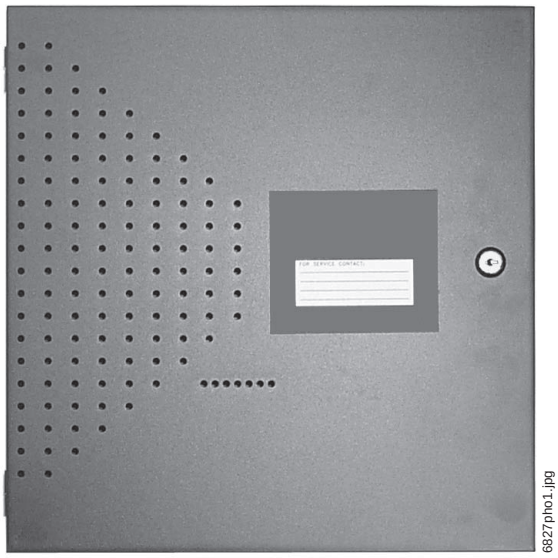
The **FCPS-24S6** (6-amp) and **FCPS-24S8** (8-amp) are compact, cost-effective remote power supplies with battery charger. The FCPS-24S6/-24S8 may be connected to any 12- or 24-volt Fire Alarm Control Panel (FACP) or may be used as a stand-alone supply. Primary applications include Notification Appliance (bell) Circuit (NAC) expansion (to support ADA requirements and NAC synchronization) or auxiliary power to support 24-volt system accessories. The FCPS-24S6/-24S8 provides ***regulated*** and ***filtered*** 24 VDC power to four notification appliance circuits configured as either four Class B (Style Y) or Class A (Style Z, with **ZNAC-4** option module). Alternately, the four outputs may be configured as all non-resettable, all resettable, or two non-resettable and two resettable. The FCPS-24S6/-24S8 also contains a battery charger capable of charging up to 18 AH batteries.

UL LISTED S635

FM APPROVED

California State Fire Marshal 7315-0028:225

MEA 299-02-E



FEATURES

- UL-Listed NAC synchronization using System Sensor, Wheelock, or Gentex "Commander²" appliances.
- Cascadable for up to ten power supplies (four for Gentex) with strobe timing maintained.
- Operates as a "sync follower" or as a "sync generator" (default). *See note on page 2.*
- Contains two fully-isolated input/control circuits — triggered from FACP NAC (NAC expander mode) or jumpered permanently "ON" (stand-alone mode).
- Four Class B (Style Y) or four Class A (Style Z, with ZNAC-4 module) NACs.
- 6-amp (FCPS-24S6) or 8-amp (FCPS-24S8) full load output, with 3 amps maximum/circuit, in NAC expander mode (UL 864).
- 4-amp (FCPS-24S6) or 6-amp (FCPS-24S8) continuous output in stand-alone mode (UL 1481).
- Compatible with coded inputs; signals passed through.
- Optional power-supervision relay (**A77-716B**).
- In stand-alone mode, output power circuits may be configured as: resettable (reset line from FACP required), non-resettable, or a mix of two and two.
- Fully *regulated* and *filtered* power output — optimal for powering four-wire smoke detectors, annunciators, and other system peripherals requiring regulated/filtered power.
- Power-limiting technology meets UL power-limiting requirements.
- Form-C normally-closed trouble relay.
- Fully supervised power supply, battery, and NACs.
- Selectable earth fault detection.
- AC trouble report selectable for immediate or 8-hour delay.
- Works with virtually any UL 864 fire alarm control which utilizes an industry-standard reverse-polarity notification circuit (including unfiltered and unregulated bell power).
- Requires input trigger voltage of 9.0 – 32 VDC.
- Self-contained in compact, locking cabinet — 15" (38.1 cm) high x 14.5" (36.83 cm) wide x 2.75" (6.985 cm) deep.
- Includes integral battery charger capable of charging up to 18 AH batteries. Cabinet capable of housing 7.0 AH batteries.
- Battery charger may be disabled via DIP switch for applications requiring larger batteries.
- Fixed, clamp-type terminal blocks accommodate up to 12 AWG (3.1 mm²) wire.

STANDARDS and CODES

The FCPS-24S6/-24S8 complies with the following standards:

- **NFPA 72** 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).*

SPECIFICATIONS

Primary (AC) power:

- FCPS-24S6/-24S8: 120 VAC, 60 Hz, 3.2 A maximum.
- Wire size: minimum #14 AWG (2.0 mm²) with 600 V insulation.

Control input circuit:

- Trigger input voltage: 9 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.

NOTIFIER® is a Honeywell company.
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

NOTIFIER® 12 Clintonville Road, Northford, Connecticut 06472

ISO 9001 CERTIFIED ENGINEERING & MANUFACTURING QUALITY SYSTEMS

Auxiliary power output: specific application power 500 mA maximum.

Output circuits:

- +24 VDC filtered, regulated.
- 3.0 amps maximum for any one circuit.
- Total continuous current for all outputs (stand-alone mode): ***for FCPS-24S6:*** 4.0 amps maximum; ***for FCPS-24S8:*** 6.0 amps maximum.
- Total short-term current for all outputs (NAC expander mode): ***for FCPS-24S6:*** 6.0 amps maximum; ***for FCPS-24S8:*** 8.0 amps maximum.

Secondary power (battery) charging circuit:

- Supports lead-acid batteries only.
- Float-charge voltage: 27.6 VDC.
- Maximum charge current: 1.5 amps
- Maximum battery capacity: 18 AH.

APPLICATIONS

Example 1: Expand notification appliance power an additional 6.0 amps (FCPS-24S6) or 8.0 amps (FCPS-24S8). Use up to four Class B (Style Y) outputs or four Class A (Style Z) outputs (using ZNAC-4). For example, the FACP notification appliance circuits will activate the FCPS when reverse-polarity activation occurs. Trouble conditions on the FCPS are sensed by the FACP through the notification appliance circuit.

Example 2: Use the FCPS to expand auxiliary regulated 24-volt system power up to 4.0 amps (FCPS-24S6) or up to 6.0 amps (FCPS-24S8). Both resettable and non-resettable power options are available. Resettable outputs are created by connecting the resettable output from the FACP to one or both of the FCPS inputs.

Example 3: Use addressable control modules to activate the FCPS instead of activating it through the FACP notification appliance circuits. This typically allows for mounting the FCPS at greater distances* away from the FACP while expanding system architecture in various applications.

For example, an addressable control module is used to activate the FCPS, and an addressable monitor module is used to sense FCPS trouble conditions. Local auxiliary power output from the FCPS provides power to the addressable control module.

**Addressable FACPs are capable of locating control and monitor modules at distances of up to 10,000 feet (3048 meters).*

AGENCY LISTINGS AND APPROVALS

See the first page of this data sheet for listing agencies and file numbers. These listings and approvals apply to the FCPS-24S6 and the FCPS-24S8. 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.

SYNC FOLLOWER/GENERATOR NOTE

In some installations, it is necessary to synchronize the flash timing of all strobes in the system for ADA compliance. Strobes accomplish this by monitoring very short timing pulses on the NAC power which are created by the FACP. When installed at the end of a NAC wire run, the FCPS-24S6/-24S8 can track (i.e., "follow") the strobe synchronization timing pulses on the existing NAC wire run. This maintains the overall system flash timing of the additional strobes attached to the FCPS.

When the FCPS-24S6/-24S8 is configured (via DIP switch settings) as a "sync follower," the FCPS's NAC outputs track the strobe synchronization pulses present at the FCPS's sync input terminal. The pulses originate from an upstream FACP or other power supply.

When the FCPS-24S6/-24S8 is configured (via DIP switch settings) as a "sync generator," the FCPS's sync input terminals are not used. Rather, the FCPS is the originator of the strobe synchronization pulses on the FCPS's NAC outputs. In "sync generator" mode, the sync type (System Sensor, Wheelock, or Gentex) is selectable via DIP switch settings.

PRODUCT LINE INFORMATION

FCPS-24S6: 6.0 amp, 120 VAC remote charger power supply. Includes main printed circuit board, transformers, enclosure (15" [38.1 cm] high x 14.5" [36.83 cm] wide x 2.75" [6.985 cm] deep), and installation instructions.

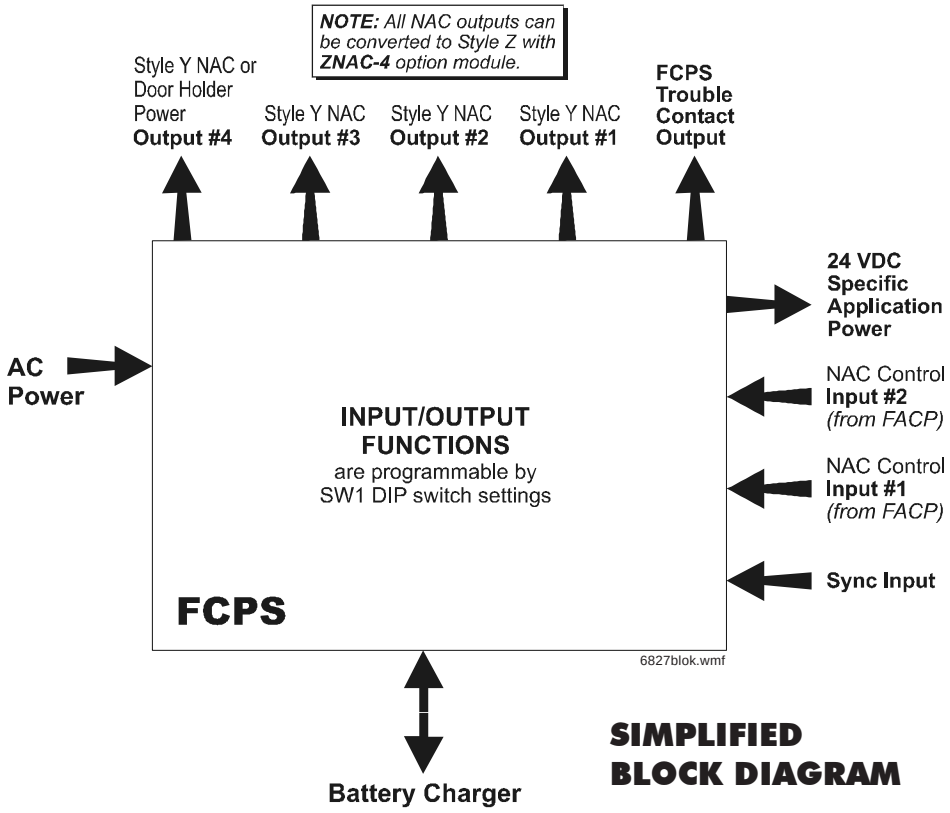
FCPS-24S8: 8.0 amp, 120 VAC remote charger power supply. Includes main printed circuit board, transformers, enclosure (15" [38.1 cm] high x 14.5" [36.83 cm] wide x 2.75" [6.985 cm] deep), and installation instructions.

ZNAC-4: Class A (Style Z) NAC option module.

A77-716B: 12/24 VDC end-of-line relay for monitoring four-wire smoke detector power.

BAT-1270: Battery, 12 volt, 7.0 AH *(two required, see BAT Series data sheet **DN-6933**)*.

PS-1270: Battery, 12 volt, 7.0 AH *(two required, see PS Series data sheet **DN-1109**)*.



SIMPLIFIED BLOCK DIAGRAM

BOARD LAYOUT

