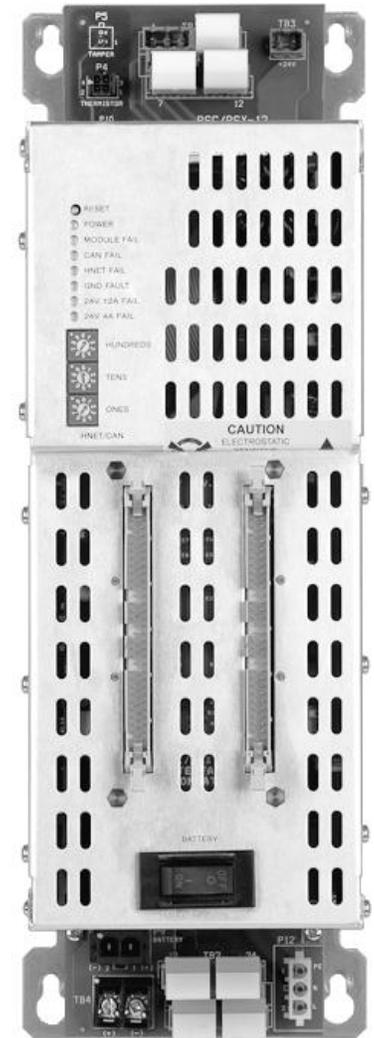


# FireFinder® XLS

## Power-Supply Charger, Power-Termination Board Module & Power-Supply Extender Models PSC-12, PTB and PSX-12

### ARCHITECT AND ENGINEER SPECIFICATIONS

- Main-system power supply
- Total power output 12 Amp @ 24VDC
- Built-in charger for up to 100AH batteries
- Universal AC power input: 120VAC – 240VAC @ 50 / 60Hz
- Off-line, switch-mode power converter
- Filtered & regulated 24VDC
- Mounts on back box or optional CAB-MP in one (1) module space
- Common *Alarm* & common *Trouble* relays (Form 'C' rated @ 2A)
- Two (2) Programmable relays (Form 'C' rated @ 2A)
- Provides 12-Amp, non-power-limited 24 VDC output (internal use)
- Provides 24VDC and 6.2VDC power to all modules connected to a 60-pin bus
- 4-Amp, power-limited 24VDC output (external use)
- Supervised Intelligent Module with plain, decimal addressing
- Communicates with PMI / CPC, via common 60-pin power / data bus
- Ground-fault detection circuitry
- Optional enclosure tamper switch connection point (Model HTSW-1)
- Includes PTB Power Termination Board for AC field connections
- Optional 24VDC system power expansion with the power-supply extender (Model PSX-12)
- Models PSC-12 and PSX-12 share common batteries
- Up to three (3) Model PSX-12s connected to Model PSC-12
- UL 864 9<sup>th</sup> Edition Listed & ULC Listed;  
FM, CSFM, NYC Fire Department Approved



Model  
PSC-12

### Product Overview – (Model PSC-12)

The Model PSC-12 Power-Supply Charger is a high-current power supply that provides FireFinder XLS with primary, regulated 24VDC power to operate at 12 Amps (*Alarm*) / 5 Amps (*Standby*).

Model PSC-12 has a built-in battery charger, capable of charging up to 100AH batteries.

Model PSC-12 is an addressable-intelligent, microprocessor-controlled module that communicates its status to the system-operator interface (PMI).

Model PMI is able to query the status of the power supply to obtain information regarding system charging current, terminal loading information, ground fault-conditions and more.

## Product Overview – (continued)

### Model PSC-12

Model PSC-12 is a universal power supply; accepting AC power-input levels from 120VAC – 240VAC @ 50 / 60Hz. No special configuration is required – Model PSC-12 is designed to operate across these AC input ranges.

Model PSC-12 has an off-line, switch-mode power converter and a power-factor-correction circuit to improve conductive RF emissions at low frequency.

Model PSC-12 communicates with the H-Net protocol with other system cards and modules, via the common 60-pin power / data bus.

Model PSC-12 also provides the FireFinder XLS system with 6.2VDC (2Amps) and 24VDC (2Amps) – via the 60-pin bus – to provide basic power to cards and modules. This 24VDC and 6.2VDC power is also referred to as 'back-plane current.'

Combined with the 'back-plane current,' the PSC-12 provides 12Amps of power @ 24VDC. Two (2) separate power-output terminals are available: one (1) power limited with 4A max @ 24VDC capacity and one (1) non-power limited with 12A max @24VDC capacity (the total not to exceed 12A). Model PSC-12 also provides two (2) connection points for the 60-pin power / data bus.

The 24 VDC outputs for Model PSC-12 provide auto-resettable current protection circuits for overload and short-circuit conditions.

The battery sizes installed are entered in the software configuration tool. Model PSC-12 can charge 15AH, 31AH, 75AH or 100AH batteries. The charger monitors and maintains the battery. The charger has three (3) charge modes – depending on the state of the batteries: Bulk (full) Charge State, Trickle Charge State and Float (maintenance) State. The charger monitors the batteries and automatically determines which of the charging modes to activate.

Model PSC-12 can charge lead-acid batteries only.

Model PSC-12 mounts on one (1) of four (4) available module spaces directly on the back box or optional Model CAB-MP module mounting plate, which then mounts inside of Models CAB-1, CAB-2 or CAB-3 system enclosures.

Model PSC-12 has four (4) Form 'C' relays rated at 2 Amps each. A relay is dedicated to automatically operate on "Any System *Alarm*" – this is the Common *Alarm* Relay. Another is dedicated to automatically operate on "Any System *Trouble*" - this is the Common *Trouble* Relay.

Two (2) additional relays are available to be programmed for activation based on system control logic.

When a door-tamper switch is required in any of the CAB enclosures, the Model HTSW-1 tamper switch can be optionally connected to Model PSC-12 to provide this functionality.

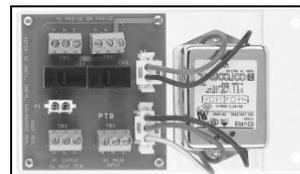
Model PSC-12 has diagnostics LEDs to indicate 'Power On', 'Module Failure' (internal module failure), 'H-NET Failure' (network-communication failure), 'Ground Fault' (internal to enclosure or on any 24VDC output circuits), '24VDC 12A Fail' and '24VDC 4A Fail.' Model PSC-12 module is addressed using plain, decimal-address switches, which clearly state the address of the module.

As an option, an extender cable (Model PSC-ISO-CBL) can allow usage of two (2) XLS universal power supplies (Model PSC-12) in one (1) Model CAB-series enclosure.

### Model PTB

Model PSC-12 Power-Termination Board comes packaged with a module known as Model PTB. Model PTB is the Power-Termination Board, and is required for operation with the PSC-12. Model PTB must be mounted in the lower-right corner of the CAB enclosures. Mounting studs are provided in all enclosures to mount to Model PTB.

Model PTB contains screw terminals for AC input power to be connected. Model PTB contains an AC-line filter and AC-line power breaker rated at 5A. From another connector on Model PTB, AC power is connected directly to Model PSC-12, via a keyed-cable harness. Each Model PTB supports building AC-power-connection circuits for two (2) power supplies – either one (1) for Model PSC-12 and one (1), optionally, for the Power Supply extender (Model PSX-12.) When more than one (1) Model PSX-12 Power Supply extender is used, a second Model PTB is required, and must be ordered separately.

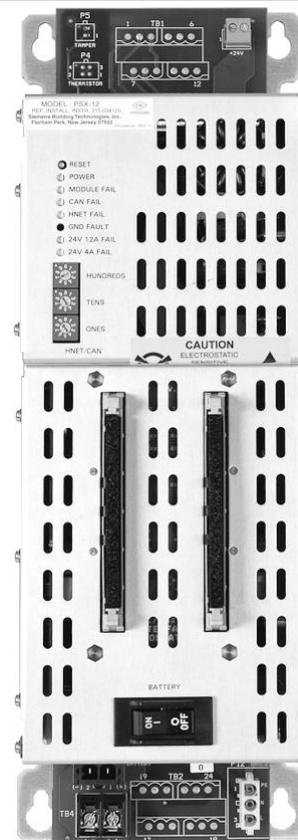


Model PTB

Model PTB has an optional connector that can be used during system installation, commissioning and service to provide the technician with a place to plug in their laptop computer, if required. Model AC-ADPT is an optional accessory cable that allows connection on one side to Model PTB, via a keyed connector, and on the other end directly into to the laptop's transformer. Most PC external power transformers have removable AC power cords which can be replaced by Model AC-ADPT to temporarily provide an AC power source for PCs used during system installation, service and maintenance calls, when needed.

## PSX-12 Power-Supply Extender

- Auxiliary 24VDC Power Supply
- Total power output 12 Amp @ 24VDC
- Universal AC power input 120VAC – 240VAC @ 50 / 60Hz
- Off-line Switch Mode Power Converter
- Filtered & Regulated @ 24VDC
  - Provides 12A non-power limited @ 24 VDC output (internal use)
  - Provides 4-Amp, power-limited @ 24VDC output (external use)
- Mounts on CAB-MP one (1) module space
- Supervised Intelligent Module – plain, decimal addressing
- Communicates with PMI / CPC, via common 60-pin power / data bus
- Ground-fault detection circuit
- PTB Power Termination Board for AC field connections
- Models PSC-12 and PSX-12 share common back-up batteries
  - Up to three (3) PSX-12s connected to a PSC-12 charger
-  UL 864 9<sup>th</sup> Edition Listed &  ULC Listed;  
FM, CSFM, NYC Fire Department Approved



Model  
PSX-12

### Product Overview – (Model PSX-12)

The Model PSX-12 Power-Supply Extender is a high-current, auxiliary-power supply that expands the main Model PSC-12 power supply and battery charger for the FireFinder XLS system with an additional 24VDC power. Model PSX-12 is rated at 12Amps.

Model PSX-12 is an addressable intelligent microprocessor-controlled module that communicates its status to the system-operator interface (PMI) to report fault conditions. Model PMI is able to query the status of the power supply to obtain information regarding terminal-loading information, ground-fault conditions and more.

Model PSX-12 is a universal power supply; accepting AC power-input levels from 120VAC – 240VAC, and has an off-line, switch-mode power converter and power-factor-correction circuit to improve conductive RF emissions at low frequency. No special configuration is required.

Model PSX-12 communicates via H-Net protocol with other system cards and modules, via the system's common 60-pin power/data bus. Model PSX-12 provides a full 12 Amps of power @ 24VDC.

Two (2) separate power-output terminals are available: one that is power limited with 4A max @24VDC capacity and one non-power limited with 12A max @24VDC capacity (total is not to exceed 12A). Model PSX-12 also provides two (2) connection points for the 60-pin power / data bus.

Model PSX-12 mounts on one (1) of four (4), available module spaces directly on the back box or optional Model CAB-MP module mounting plate, which then mounts inside of Models CAB1, CAB2 or CAB3 system enclosures.

Model PSX-12 has diagnostics LEDs to indicate 'Power On', Module Failure (internal module failure), H-NET Failure (network communication failure), Ground Fault (internal to enclosure or on any 24VDC output circuits), 24VDC 12A fail and 24VDC 4A fail. Model PSX-12 is addressed using plain, decimal-address switches, which clearly state the address of the module.

## Details for Ordering

Model Number	Part Number	Description
AC-ADPT	500-633992	Technician Laptop-Power Connector
BP-61	175-387194	24VDC, 15AH Battery
BTX-1	175-083897	Set of 12V, 31AH Batteries
BTX-2	175-083898	Set of 12V, 55AH Batteries
BTX-3	599-034220	Set of 12V, 100AH Batteries
CAB-BATT	500-633917	Battery Enclosure for 75AH or 100AH Batteries
HTSW-1	500-033350	Door Tamper Switch
PSC-12	500-033340	Power Supply and Battery Charger, 12A @ 24VDC
PSC-ISO-CBL	S54430-K4-A1	Optional Extender Cable (used for holding two [2] Model PSC-12 power supplies in one [1] Model CAB-series enclosure)
PSX-12	500-034120	Power Supply Extender, 12A @ 24VDC
PTB	500-033390	Power Termination Board [only required for applications with more than two (2) Model PSX-12 extenders]

## Temperature and Humidity Range

Products are ®UL 864 9<sup>th</sup> Edition Listed for indoor dry locations within a temperature range of 120+/-3°F (49+/-2°C) to 32+/-3°F (0+/-2°C) and a relative humidity of 93+/-2% at a temperature of 90+/-3°F (32+/-2°C).

## Electrical Ratings

	Model PSC-12	Model PSX-12
Input Voltage	120VAC @ 50 / 60 Hz. 220VAC @ 50 / 60 Hz. 240VAC @ 50 / 60 Hz.	120VAC @ 50 / 60 Hz. 220VAC @ 50 / 60 Hz. 240VAC @ 50 / 60 Hz.
Input Current	3.5A, max. @ 120VAC 2.5A, max. @ 220VAC 2.0A, max. @ 240VAC	3.5A, max. @ 120VAC 2.5A, max. @ 220VAC 2.0A, max. @ 240VAC
24VDC Back Plane Current	2A, max.	Not Applicable
Screw Terminal [24V Current]	Power Limited: 4A, max. Non-Power Limited: 12A, max.	Power Limited: 4A, max. Non-Power Limited: 12A, max.
6.2VDC Back Plane Current	2A, max.	Not Applicable
24V Standby Current	150mA + 20mA per active relay	150mA
Output Power [Each HNET / XNET and CAN Network Pair]	8V peak-to-peak max. 75mA, max. during msg. transmission	8V peak-to-peak max. 75mA, max. during msg. transmission

Model PTB	
AC Mains Rating	{Each Model PSC-12 / Model PSX-12}
120VAC @ 50 / 60 Hz.	3.5A, max.
220VAC @ 50 / 60 Hz.	2.5A, max.
240VAC @ 50 / 60 Hz.	2.0A, max.

**Notice:** This marketing data sheet is not intended to be used for system design or installation purposes. For the most up-to-date information, refer to each product's installation instructions.