



## DESCRIPTION

The FLEXPOWER FPO250/250-E2 is a dual voltage offline power supply-battery charger housed in a large cabinet for expansion and maximum field configuration flexibility. Listed modular accessories include: power distribution, relay based lock control, egress lock control, secondary voltage and network connection.

Each power supply provides two pairs of outputs, each pair user selectable for 12 or 24 VDC, the unit is configured in a painted, steel, locking enclosure with tamper switch and integral battery space. One output of a pair provides continuous output power for system use, the second is programmable for either fail-safe or fail-secure operation, activated when the fire alarm disconnect is initiated.

Complete fault detection and reporting, with programmable fault delays, is provided along with datalogging capability of fault occurrence, battery usage time and current power supply status.

## BENEFITS

- Agency Listed for Access Control, Fire, Security, CCTV, and Mass Notification
- **FlexPower®** Feature Set
  - ◆ **SureCharge** Microprocessor controlled battery charging
  - ◆ **PowerCom** Power supply programming / monitoring software
  - ◆ **VSelect** Installer selectable output voltage
  - ◆ **TruWatt** Delivers twice the current at 12V than at 24V
  - ◆ **PwrHealth** Intelligent battery charging and battery state monitoring
  - ◆ **FlexConnect** Dual voltage bus / pre-wired accessory board interconnects
  - ◆ **Reliability+** Full fault protection / high efficiency / fiberglass pcb
  - ◆ **GreenSmart** RoHS compliant, lead free, energy efficient design
  - ◆ **DataLink** Network communication interface option
- **System Features**
  - ◆ Fully modular power management system
  - ◆ Multiple outputs for system power, direct lock control and accessory power distribution modules
  - ◆ Each distributed output is selectable for either continuous or switched DC in single voltage systems, or 12/24VDC in dual voltage systems
  - ◆ Fire alarm interface for egress lock control (FAI)
  - ◆ Configurable fail-safe / fail-secure modes of operation
  - ◆ Comprehensive fault detection and reporting including optional earth ground and battery presence
  - ◆ AC and System fault output relays can be delayed via PowerCom
  - ◆ Microprocessor dual rate charging restores battery sets from 4 to 80Ah
- **Power Management & Reporting** (U.S. Patent 8,566,651)
  - ◆ PowerCom s/w monitors, programs, and reports on power supply core functions through a computer USB or network connection
  - ◆ NL1 DataLink module connects power supply to a LAN/WAN network for remote power supply programming and diagnostics. Monitors and reports system status, battery state, generates email or SNMP notification of system trouble or time to service alert
- **Lifetime Warranty**

## ELECTRICAL RATINGS

| Parameter                | Rating    |           | Unit   |
|--------------------------|-----------|-----------|--------|
|                          | FPO250    | FPO250    |        |
| Input Voltage            | 120 / 230 | 120 / 230 | VAC    |
| Input Power (max)        | 282       | 282       | Watts  |
| Output Voltage           | 12 or 24  | 12 or 24  | VDC    |
| Output Current           | 20 or 10  | 20 or 10  | Amps   |
| Battery Charge Capacity  | 80        | 80        | Ah     |
| Efficiency               | 88        | 88        | %      |
| Output Ripple            | 120       | 120       | mVp-p  |
| Line Regulation          | 0.1       | 0.1       | ±%     |
| Load Regulation          | 2         | 2         | ±%     |
| BTU Rating               | 218       |           | BTU/Hr |
| Continuous Power Outputs | 2         |           |        |
| Switched Power Outputs   | 2         |           |        |
| Fire Alarm Interface     | Yes       |           |        |

## AGENCY LISTINGS

| USA                    | CANADA           |
|------------------------|------------------|
| UL 294                 | ULC S318         |
| UL 603                 | ULC S319         |
| UL 864                 | ULC S527         |
| UL 1076                | CSA C22.2 #107.1 |
| FCC Part 15, Subpart B | CSA 22.2 #60950  |
| CSFM Approved          |                  |

**FLEXPOWER® STANDARD FEATURES**

**SureCharge** The microprocessor controlled charging process used by the FlexPower power supply guarantees both proper charging current for the battery and fastest charge time. The constant current charger provides a linear, predictable charge time for any lead acid, gel battery set from 4 to 80 amphotours (based on charger rating) without stress or damage to the battery.

**PowerCom/PowerCom-USB** LifeSafety Power's proprietary software interface for communication with FlexPower equipment through a DATALINK or USB connection. PowerCom is used for power supply monitoring, programming, and reporting.

The NL1 DATALINK network module enhances PowerCom's capability with remote diagnostics, battery management, trouble / service email alerts via LAN/WAN, and remote on/off reset control.

The DL1 USB cable and a computer laptop USB connection, enables PowerCom-USB to be used by service personnel for onsite power supply programming and system diagnostic evaluation.

**VSelect** One single switch for configuring the output between 12 and 24VDC eliminates field errors and allows for the reduction and simplification of service inventory by eliminating the necessity of stocking units in each voltage.

**TruWatt** Output power capability of the power supply remains constant regardless of the output voltage setting. For example, a FlexPower 250 watt supply will provide 10 amps at 24VDC and 20 amps at 12VDC, allowing the same number of locking devices to be used at either the 12 or 24V setting.

**FlexConnect** The FlexPower series provides a prewired interconnection system between the power supply and accessory boards of the power system that introduces the concept of a dual voltage bus structure throughout all system modules and eliminates intermodule wiring by the field installer.

Field upgrading or expansion is as simple as using common mounting footprints, predrilled mounting holes, snap-in standoffs, and pluggable wires to add additional system capability or capacity when needed, all without restrictive agency listing issues.

**Reliability+** All power supplies within the FlexPower system are fully fault protected and feature fiberglass printed circuit boards rather than paper-based to protect the electronics from water and other corrosive elements found in industrial settings. High efficiency power supply design promotes low heat generation leading to a longer service life.

**GreenSmart** All members of the FlexPower family are RoHs compliant, lead-free, and meet the latest state, federal and European requirements for energy efficiency.

**DataLink - Smart Power Management Communication Interface**

Monitor, program, control, and report key power supply functions by computer or local/wide area network using a browser interface or LifeSafety Power's PowerCom® remote management software.

Power supply network connection requires the optional NL1 network module. Power supply computer connection requires the optional DL1 USB cable.

| Model No.     | Type          | Mechanical Info                          |
|---------------|---------------|--|
| FPO250/250-E2 | E2 Expandable | Size: 20" x 16" x 4.5"<br>Weight: 14 lb. |

**FlexPower Numbering System**



**FAULT DETECTION AND REPORTING**

The comprehensive fault detection and reporting mechanism of the FPO series provides for both local and remote fault reporting.

On-board visual indicators are provided to give immediate installer feedback. Independent form C relay contacts are provided to report AC and system fault conditions to remote or auxiliary equipment. A door tamper switch is included.

**Detected Fault Conditions:**

- AC Power
  - ◆ AC loss, AC low
- DC Power and System
  - ◆ Abnormal or loss of power supply operation
  - ◆ Over current, over temperature condition
  - ◆ DC output high, low
  - ◆ Battery Presence, Earth Ground (user optional)
  - ◆ Reversed battery condition, blown fuse or loss of output voltage on selected accessory boards (detected on the power supply)

**FIRE ALARM INTERFACE (FAI)**

- Activation Methods
  - ◆ DC voltage: 9 to 33VDC, 3 to 15mA
  - ◆ Dry contact NO/NC
- Latch Enable: NC contact set or switch (typically for Canadian use)

**E2 CONFIGURATION FLEXIBILITY**

**Worldwide Headquarters**

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**Important:** All information, including illustrations, is believed to be reliable. Users, however, should independently evaluate the suitability of each product for their particular application. LifeSafety Power makes no warranties as to the accuracy or completeness of the information, and disclaims any liability regarding its use. LifeSafety Power's only obligations are those in the LifeSafety Power Standard Terms and Conditions of Sale for this product, and in no case will LifeSafety Power or its distributors be liable for any incidental, indirect, or consequential damages arising from the sale, resale, use, or misuse of the product. Specifications are subject to change without notice. In addition, LifeSafety Power reserves the right to make changes—without notification to Buyer—to processing or materials that do not affect compliance with any applicable specification.