# FlexPower FPO150-B100E1

**150W, Economical Dual Voltage**
**4A/12V and 4A/24V**
**E1 locking enclosure 12" x 14" 4.5"**




## DESCRIPTION

The FlexPower FPO150-B100E1 is a dual voltage offline power supply-battery charger specifically designed for the lifesafety industry. Capable of providing 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.

*Designed specifically to support the dual voltage requirement of 12 and 24VDC, this unit utilizes an FPO to generate 24VDC and a B100 to generate 12VDC. The FPO/B100 combination offers significant space and cost savings, and requires only one battery set to backup both DC voltages.*

## 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 accesory 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
  - 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*** *(patent pending)*
  - PowerCom s/w monitors, programs, and reports on power supply core functions through a computer USB or network connection
  - Service personnel can perform onsite power supply programming and system diagnostics using the DL1 USB cable and a computer laptop
  - 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
- ***Ten Year Warranty***

## ELECTRICAL RATINGS

| Parameter | Rating FPO150 | Rating B100 | Unit |
|---|---|---|---|
| Input Voltage | 120 / 230 | – | VAC |
| Input Power (max) | 170 | – | Watts |
| Output Voltage | 24 | 12 | VDC |
| Output Current | 4 | 4 | Amps |
| Battery Charge Capacity | 80 | – | Ah |
| Efficiency | 87 | 91 | % |
| Output Ripple | 120 | 82 | mVp-p |
| Line Regulation | 0.1 | 0.1 | ±% |
| Load Regulation | 2 | .56 | ±% |
| BTU Rating | 66 | 10 | BTU/Hr |
| Continuous Power Outputs | 1 | – | |
| Switched Power Outputs | 1 | – | |
| Fire Alarm Interface | Yes | NO | |

## AGENCY LISTINGS

**USA**
UL 294 UL 1481
UL 603 UL 2044
UL 864 UL 2572
UL 1076
FCC Part 15, Subpart B
CSFM Approved

**CANADA**
ULC S318
ULC S319
ULC S527
CSA C22.2 #107.1
CSA 22.2 #60950

## 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 amphours (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.

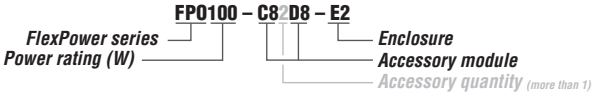
***DataLink - Smart Power Management Communication Interface***

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 |
|---|---|---|
| FPO150-B100E1 | Dual Voltage | Size: 12" x 14" x 4.5"<br>Weight: 10.5 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.

**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)*

## SECONDARY VOLTAGE POWER SUPPLY (B100)

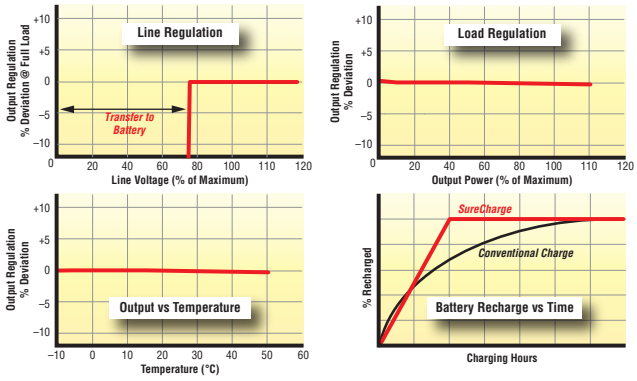
The B100 provides an additional voltage in a system, either to the B2 buss for use with other accessory boards, or via its own output terminals. The B100's input comes from the B1 buss in the system, allowing the FPO's battery set to back up the B100's output voltage without the need for a second battery set.

Output settings for the B100 include 12V and an adjustable setting of 5 to 18V. Multiple B100s can be added to a system for virtually unlimited voltage combinations.

Output current is rated for 4 Amps and the output is rated Class 2, power limited.

*To calibrate system loading when the B100 is used, see **Application Note AN07** for more information (www.lifesafetypower.com)*

## FPO PERFORMANCE GRAPHS




***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.*