FlexPower FPO250-B100C8D8E2

250W, 8 Door Access
Economical Dual Voltage
8 Lock outputs, 8 Auxiliary outputs

DESCRIPTION

The FlexPower FPO250-B100C8D8E2 is a dual voltage, offline switchmode power supply-battery charger system specifically designed for the access control segment of the lifesafety industry. Providing for 12V system power, eight access controlled trigger inputs, eight 12/24V access controlled lock outputs, and eight 12/24V auxiliary power distribution outputs, the unit is configured in a painted, steel, locking enclosure with tamper switch and integral battery space.

Each relay controlled, lock output is individually programmable for fire alarm disconnect, fail-safe, fail-secure, or NO/NC dry contact. Each auxiliary output is programmable for continuous power output from either of the two power supplies.

Complete fault detection and reporting, with programmable fault delays, is provided along with datalogging capability of fault occurrence, battery usage time and 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
  - ***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*** USB or Network communication interface *(with NL1)*
- ***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 FPO250	Rating B100	Unit
Input Voltage	120 / 230	–	VAC
Input Power (max)	282	–	Watts
Output Voltage	24	12	VDC
Output Current	8	4	Amps
Battery Charge Capacity	40	–	Ah
Efficiency	80	91	%
Output Ripple	120	82	mVp-p
Line Regulation	0.1	0.1	±%
Load Regulation	2	.56	±%
BTU Rating	109	10	BTU/Hr
Continuous Power Outputs	9	–	
Switched Power Outputs	9	–	
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
Ontario ESA

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.

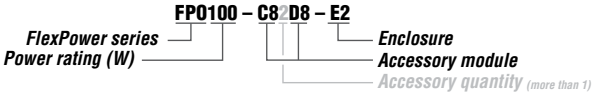
DataLink Smart Power Management Communication Interface

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
FPO250-B100C8D8E2	Fused	Size: 16" x 20" x 4.5"
FPO250-B100C8PD8PE2	Power Limited	Weight: 13 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 (optional)
  - Earth ground (optional)
  - Power supply / accessory board blown fuse or loss of output voltage

FIRE ALARM DISCONNECT (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)*

LOCK CONTROL MODULE (C8, C8P)

- *Eight access control trip inputs*
  - Capable of activation by voltage or NO/NC dry contact
- *Eight individually protected lock control outputs*
  - Supervised for blown fuse or loss of output voltage
  - Individually programmable at either voltage for: fail-safe, fail-secure, NO/NC, dry contact, and fire alarm interface for control of egress locks
  - ***C8*** 3A fused per output
  - ***C8P*** 2.5A class 2, power limited per output
- *DC Presence: Green LED per output*
- *Removable terminals: accepts #14 to #24 AWG*

POWER DISTRIBUTION MODULE (D8, D8P)

- *Eight power distribution outputs Individually programmable to a continuous output drawn from either buss 1 or buss 2, typically used to program an output for either 12 or 24VDC*
  - ***D8*** 3A fused per output
  - ***D8P*** 2.5A class 2, power limited per output
- *DC Presence: Green LED per output*
- *Removable terminals: accepts #14 to #24 AWG*

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)*

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