

Overview

The B100 Adjustable Step-Down Converter module provides a means to easily and economically add an additional voltage to any FlexPower system. Primary power for the B100 is derived from an FPO Series power supply and the B100 steps the FPO voltage down to the user defined range (typically 12VDC*).

The B100 terminal block output is Class 2 power limited and jumper selectable for either a fixed 12VDC or an adjustable range between 5–18VDC @ 4 Amps maximum current. Multiple B100 modules can be used to create a multi-voltage system.

*See B100 User Manual for complete capability.

Specifications

Parameter	Rating
Input Voltage (FPO Series Power Supply)	12 or 24VDC
Output Voltage (Jumper Select)	12VDC or 5–18VDC (User Adjustable)
Output Current (Class 2 Power Limited)	4 Amps
Efficiency	91%
Output Ripple (12V @ 4A)	82 mVp-p
Line Regulation (12V @ 4A)	<0.1±%
Load Regulation (12V)	0.56 ±%

*Input voltage must be a minimum of 3V higher than output voltage.

Features

Programmable Output Voltage

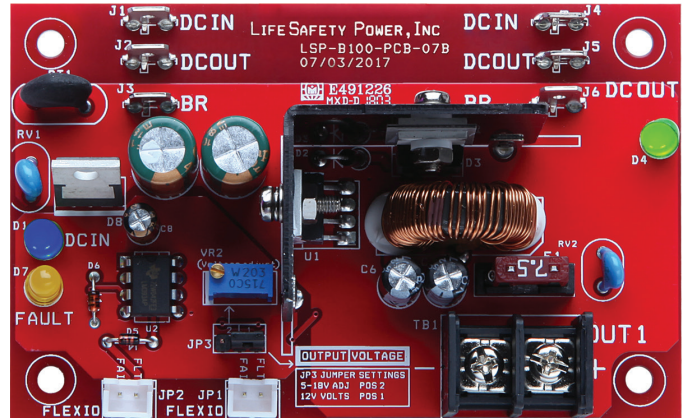
- Jumper selectable output voltage
 - 12VDC fixed
 - 5–18VDC user adjustable
- 4 Amps current @ any selected voltage

On-Board Protection

- Over load protection
- Short circuit protection
- Over temperature protection

Fault Reporting (to host power supply)

- Abnormal operation
- Voltage loss
- Over current



Visual Indicators

- DC-in / DC-out and Fault
- Input and output LEDs indicate voltage by color (<15V/Green, >15V/Blue)

Benefits

- Adds an economical secondary 12V output to any 24VDC system
- Provides the odd voltage required to power modems, routers and other IT or similar devices (ie., 5V, 9V, 15V)
- Snap-in style mounting standoffs with fast-on connect cables for easy field installation
- Eliminates need for a 12V battery set in dual-voltage access power systems
- Small size allows dual voltage in a smaller enclosure

Lifetime Warranty

- High efficiency circuit of greater than 90% provides less heat generation leading to a longer service life and lower Mean Time Between Failure (MTBF).

Ordering

Model	Dimensions	Weight
B100	4"H x 2.5"W x 1.5"D	.25 lb

Provided with cables and mounting hardware.

Agency Listings

Domestic and International Certifications

UL 294, UL 603, UL 1076, FCC Part 15, Subpart B, CSFM Approved, ULC S318, ULC S319, CSA C22.2 #107.1, CSA 22.2 #60950

Standard Features



FlexConnect® Power supply and accessory board interconnection system uses common mounting footprints, predrilled mounting holes, snap-in standoffs, pluggable wires, and a dual buss distribution architecture to simplify installation and service. This module is typically part of an existing system or purchased to expand an existing system.

VSelect® One single switch for configuring the power supply 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.

OutSmart Visual Voltage Verification—Output LED changes color based on voltage setting (12V/Green, 24V/Blue)

Reliability+ Fiberglass PCB for improved environmental performance, high efficiency operation.

This module may be added to any existing FlexPower system without restrictive agency listing issues.

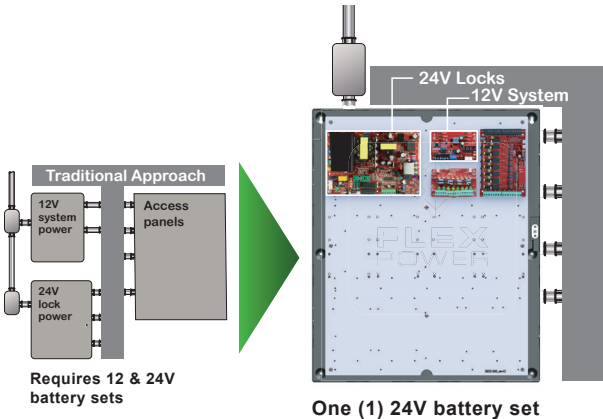
Access Power

The B100 is a perfect solution to the common problem of configuring an economical dual-voltage power system for an access control system. The B100 eliminates the need for a second power supply and cabinet to configure a dual-voltage system.

By combining an FPO of appropriate size for 24V lock power and a B100 for 12V system power, all power components are located in a single enclosure for efficiency of cost, space, interconnection, and the ability to use a single battery set for backup of both output voltages.

FPO / B100 Power Pairings

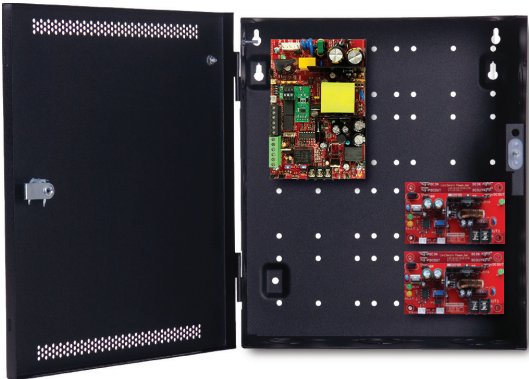
FPO	B100 Power Pairing
FPO75 + B100	24V @ 2A and 12V @ 2A
FPO150 + B100	24V @ 4A and 12V @ 4A
FPO250 + B100	24V @ 8A and 12V @ 4A



Multiple System Voltages

This example shows a system designed to produce 3 simultaneous voltages to power an IT modem with 5VDC, an IT router at 9VDC, and have 24VDC available to charge a battery set and provide for miscellaneous system functions.

5V @ .5A = 2.5W	9V @ 1A = 9W	24V @ 2A = 48W	60W Total
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A system made up of one FPO75 set to 24V, one B100 set to 5V, and one B100 set to 9V will satisfy the system requirement. All equipment will fit within an E1 enclosure and requires only a 24V battery set to backup all generated voltages.

The part number would be FPO75–2B100E1.