

## Specifications

Model		LPX-18BC	
OUTPUT	Output Type	+V (to load)	+B (to battery)
	DC Voltage	13.8V	13.6V
	Rated Current	13.5A	1.5A
	Current Range	0 – 15A	0 – 1.5A
	Wattage	207W	----
	Max Ripple & Noise <sup>2</sup>	150mVp-p	----
	Voltage Adj. Range	11.5 – 15.0V	----
	Voltage Tolerance <sup>3</sup>	±1.0%	----
	Line Regulation <sup>4</sup>	±0.5%	----
	Load Regulation <sup>5</sup>	±2.0%	----
	Setup, Rise Time <sup>6</sup>	1000ms, 100ms at full load	
Typ. Hold Up Time	20ms at full load		
INPUT	Voltage Range <sup>7</sup>	90 – 264VAC	127 – 370VDC
	Frequency Range	47 – 63 Hz	
	Typ. Power Factor	PF>0.98/115VAC, PF>0.95/230VAC at full load	
	Typ. Efficiency	91 %	
	Typ. AC Current	2.5/115VAC	1.25A/230VAC
	Typ. Inrush Current	Cold start 65A/230VAC	
	Leakage Current	<3.5mA / 240VAC	
	No Load Power	<0.5W	
PROTECTION	Short Circuit	Protection type: Constant current limiting, recovers automatically after fault condition is removed	
	Overload	Normally works within 120-160% rated output power for more than 3 seconds and switches to constant current limiting, auto-recovery after peak load condition is removed	
	Over Voltage	15.5 – 18.2 V	Protection type: Shut down output voltage, re-power on to recover
	Over Temperature	Shut down output voltage, recovers automatically after temperature goes down	
ENVIRONMENT	Working Temperature	-30 to 60°C	
	Working Humidity	20 – 95% RH non-condensing	
	Storage Temp., Hum.	-40 to 85°C, 10-95% RH non-condensing	
	Temp. Coefficient	±0.05%/°C (0 – 50°C)	
	Vibration	10 – 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes	
SAFETY	Safety Standards	UL62368-1 approved	
	EMC Emission	Compliance to FCC class A	
	Withstand Voltage	I/P-O/P: 3KVAC	I/P-FG: 2KVAC O/P-FG: 0.5KVAC
	Isolation Resistance	I/P-O/P, I/P-FG: 100M Ohms / 500VDC / 25°C / 70% RH	
OTHERS	MTBF	170.5K hrs min., MIL-HDBK-217F (25°C)	
	DIMENSION	192 x 178 x 45.5 mm	
NOTES	<ol style="list-style-type: none"> <li>All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.</li> <li>Ripple &amp; noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uF and 47uF parallel capacitor.</li> <li>Tolerance: includes set up tolerance, line regulation, and load regulation.</li> <li>Line regulation is measured from low line to high line at rated load.</li> <li>Load regulation is measured from 0% to 100% rated load.</li> <li>Length of set up time is measured at cold start first. Turning ON/OFF the power supply very quickly may lead to increase of the setup time.</li> <li>Derating may be needed under low input voltages.</li> <li>The ambient temperature derating of 3.5°C/1000m with fanless model for operating altitude higher than 2000m (6500ft).</li> </ol>		



## LPX-18BC Desktop Power Supply with Built-in Battery Charger



### Features:

- Universal full range AC input
- Built-in active PFC function
- No load power consumption < 0.5W
- UL/CUL listed
- RoHS compliant
- Fanless design, cooling by free air convection
- Protections: short circuit / overload / over voltage / over temperature / battery low / battery polarity
- 3 years warranty

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**PRODUCT DESCRIPTION:** DuraComm LPX-18BC power supply is UL listed and manufactured in accordance with ISO 9001 quality assurance standards. This power supply converts 120/240VAC 50/60Hz AC power to a low noise and regulated 13.8VDC output. The unit includes a built-in battery backup and charging circuit with diode isolation for seamless transfer to battery if input AC power is disrupted. Once input power is restored, battery will be automatically charging at 1.5A. This unit contains a low voltage monitoring circuit that cuts battery power when the battery voltage reaches  $10.5 \pm 0.8V$  or below to prevent battery and load damage.

**WARNING:** The individual user should take care to determine prior to use or installation whether this device is suitable, adequate, or safe for the use intended. Since individual applications are subject to great variation, DuraComm makes no representation or warranty as to the merchantability, suitability, or fitness of these units for any specific application. Failures require investigation as to the cause and/ or repair of the unit. THIS UNIT DOES NOT HAVE ANY USER SERVICEABLE PARTS. SERVICE AND REPAIR MUST BE REFERRED TO QUALIFIED PERSONNEL.

**NOTE:** Precision regulated power supplies operate internally from excess voltages more than 300 volts. In rare cases, voltage spikes or transients on the AC power line, or overheating, may cause a component failure in the power supply. If this failure results in over voltage at the output terminals, the electronic over voltage feature will operate. In addition, overload of the output will cause the over current feature to operate. In either case, the cause must be determined and corrected.

**INSTALLATION:** Make connection to the terminal using the included connector plug (DECA MPC100-762 2-pos 7.62mm pitch or equivalent). Be certain the voltage polarity of the load and battery connection matches the marking on the LPX-18BC.

1. **LOAD:** Connect your 12V device using UL rated wiring to the terminals marked "+V" and "-V".
2. **BATTERY:** Connect your 12V battery using UL rated wiring to the terminals marked "+B" and "-B".
3. **AC:** Insert the AC plug into an AC outlet of the proper voltage.
4. Press the ON/OFF switch to the ON position and observe that the indicator light illuminates. If the indicator light fails to light, recheck the equipment installation, hook-up polarity, and the AC outlet.

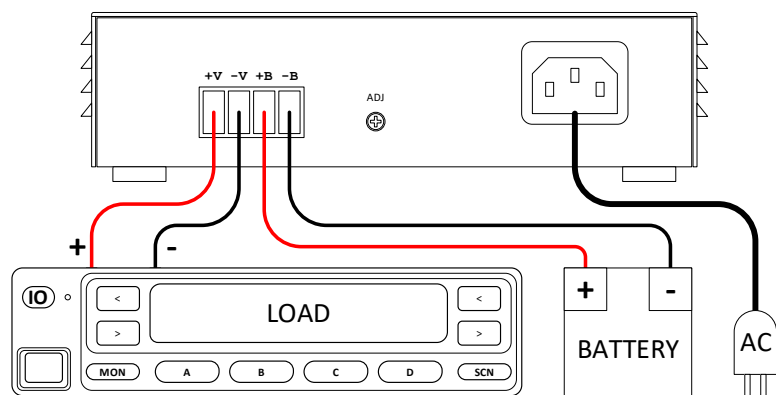


Diagram reflects LPX-18BC with load and battery.

**NOTE:** It is not recommended to connect two or more batteries as this will delay charging time. If one battery fails, it may cause other to malfunction.

**NOTE:** This device complies with part 15 of the FCC rules. Operation is subject to the following 2 conditions; 1) This device may not cause harmful interference, and 2) This device must accept any interference received, including interference that may cause undesired operation.

## **LIMITED WARRANTY**

DuraComm warrants to the initial end user, each power supply manufactured by DuraComm to be free from defects in material and workmanship when in normal use and service for a period of three years from the date of purchase from an authorized DuraComm dealer.

Should a product manufactured by DuraComm fail or malfunction due to manufacturing defect, or faulty component, DuraComm, at its option, will repair or replace the faulty product or parts thereof, which, after examination by DuraComm, prove to be defective or not operational according to specifications in effect at the time of sale to the initial end user. The product that is replaced or repaired under the provisions of this warranty will be warranted for the remainder of the original warranty period, only, and will not extend into a new three-year warranty period.

The limited warranty does not extend to any DuraComm product which has been subject to misuse, accidental damage, neglect, incorrect wiring not associated with manufacture, improper charging voltages, or any product which has had the serial number removed, altered, defaced, or changed in any way.

DuraComm reserves the right to change, alter, or improve the specifications of its products at any time, and by so doing, incurs no obligation to install or retrofit any such changes or improvements in or on products manufactured prior to inclusion of such changes.

DuraComm requires any product needing in or out of warranty service to be returned to DuraComm. All requests for warranty service must be accompanied by proof of purchase, such as bill of sale with purchase date identified. DuraComm is not responsible for any expenses or payments incurred for the removal of the product from its place of use, transportation, or shipping expenses to the place of repair, or return expenses of a repaired or replacement product to its place of use.

The implied warranties that the law imposes on the sale of this product are expressly **LIMITED**, in duration, to the three (3) year time period specified herein. DuraComm will not be liable for damages, consequential or otherwise, resulting from the use and operation of this product, or from the breach of this **LIMITED WARRANTY**.

Some states do not allow limitations on the duration of the implied warranty or exclusions or limitations of incidental or consequential damages, so said limitations or exclusions may not apply to you. This warranty gives you specific legal rights which vary from state to state.

This warranty is given in lieu of all other warranties, whether expressed, implied, or by law. All other warranties, including **WITHOUT LIMITATION**, warranties of merchantability and fitness or suitability for a particular purpose, are specifically excluded. DuraComm reserves the right to change or modify its warranty and service programs without prior notice.