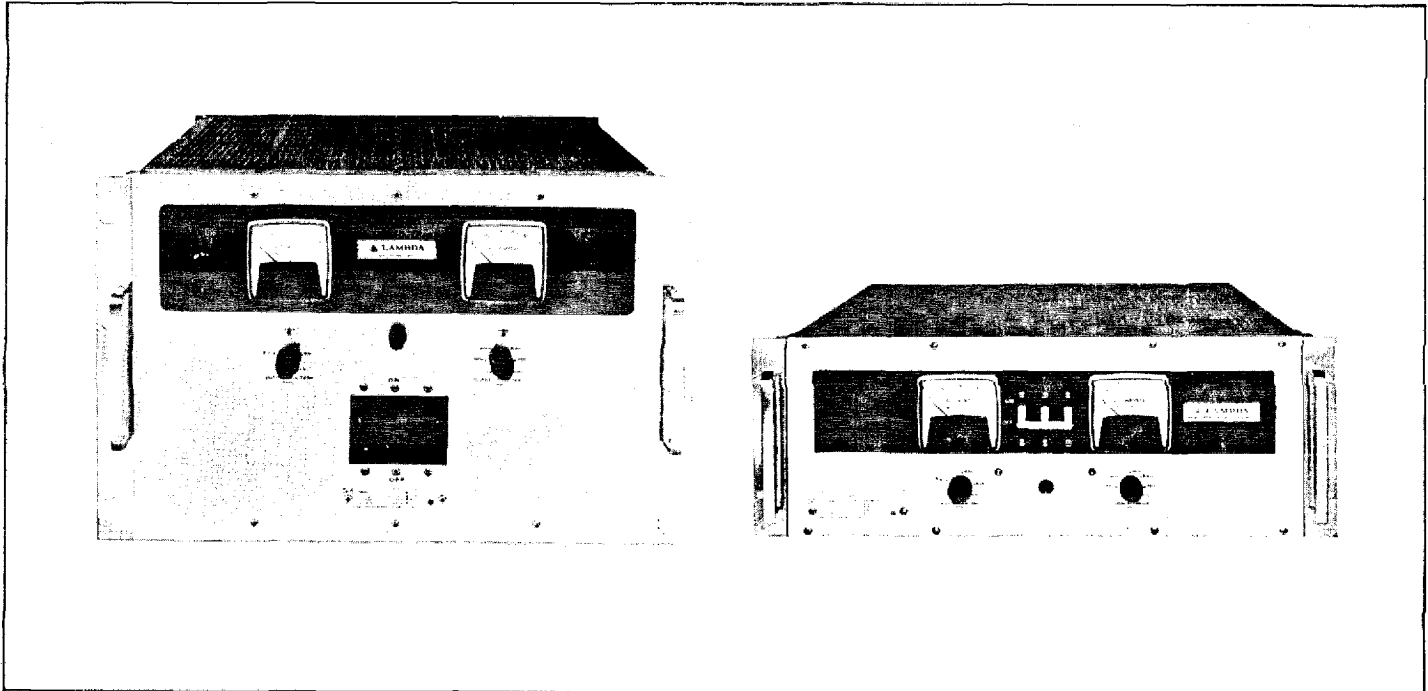




**POWER SUPPLIES**

**Lambda LB Series**



**Features—LB Series**

Up to 87% efficiency

Regulation line 0.05% + 6 mV; load 0.1% + 10 mV

Ripple 10 mV RMS max. by use of electronic ripple reducer

Convection cooled, no blowers or internal fans, no external heat sinking

Overvoltage protection standard on all models up to 60 VDC rating

No overshoot on turn-on, turn-off or power failure

Remotely programmable

Remotely sensing

Magnetics designed to MIL-T-27C, grade 6

Completely protected, short circuit proof - continuously adjustable automatic current limiting

Constant I/Constant V by automatic crossover

Series operation

Multi-current-rated for 40° C, 50° C, 60° C, 71° C

MODEL	MAX AMPS AT AMBIENT OF: <sup>1</sup>				DIMENSIONS	PRICE <sup>2</sup>
	40 C	50 C	60 C	71 C		
<b>0-7.5 VOLTS</b>						
LB-701-FM-OV	300	270	235	200	7"x19"x20-1/16"	5861
LB-721-FM-OV	500	450	400	350	12-3/16"x19"x22-1/16"	8705
<b>0-15 VOLTS</b>						
LB-702-FM-OV	180	170	160	150	7"x19"x20-1/16"	5861
LB-722-FM-OV	300	265	225	180	12-3/16"x19"x22-1/16"	8705
<b>0-36 VOLTS</b>						
LB-703-FM-OV	80	75	70	65	7"x19"x20-1/16"	5861
LB-723-FM-OV	135	130	125	120	12-3/16"x19"x22-1/16"	8705
<b>0-60 VOLTS</b>						
LB-704-FM-OV	50	47	44	40	7"x19"x20-1/16"	5861
LB-724-FM-OV	80	75	70	65	12-3/16"x19"x22-1/16"	8705
<b>0-120 VOLTS</b>						
LB-705-FM	25	22	19	16	7"x19"x20-1/16"	5160
LB-725-FM	40	36	32	28	12-3/16"x19"x22-1/16"	8385
<b>0-300 VOLTS</b>						
LB-706-FM	10	9.5	9.0	8.0	7"x19"x20-1/16"	5160
LB-726-FM	16	15	14	13	12-3/16"x19"x22-1/16"	8385

NOTES:

<sup>1</sup> Current rating applies over entire voltage range.

<sup>2</sup> Prices include meters. LB Series models are not available without meters. Prices for all models up to and including 60 VDC include built-in over-voltage protection.

<sup>3</sup> Chassis slides are available with LB-701 thru LB-706-FM models only. See page 118.

# Specifications—LB Series

## DC Output

Voltage ranges as shown in tables.

### Constant Voltage

regulation, line . . . . . 0.05% + 6 mV for line variations from 187-229 VAC or from 229-187 VAC

regulation, load . . . . . 0.1% + 10 mV for load variations from 0 to full load

remote programming

resistance . . . . . 200 ohms/volt nominal

remote programming

voltage . . . . . volt per volt

ripple and noise . . . . . 10 mV RMS max.; 100 mV RMS max. for LB-706-FM; 150 mV RMS max. for LB-726-FM.

With "V" option: 15 mV RMS for LB-701 thru LB-705; 150 mV RMS for LB-706

### temperature

coefficient . . . . . (0.03% + 0.5 mV/°C)

### Constant Current

(Current regulated line and load)

automatic crossover

current range . . . . . zero to max. current as shown in tables regulation (line and

load combined) . . . . . less than 1% + 10 mA for 721-725; less than 1% for 701-706 (1% + 50 mA for LB-726-FM) for input variations from 187-229 VAC or from 229-187 VAC and from 0 to 95% output voltage change

ripple and noise . . . . . for LB-701-LB-705-FM and LB-721-FM-OV-LB-725-FM less than (1/Vout\*)% RMS of load current either positive or negative terminal grounded. For LB-706-FM, less than (10/Vout\*)% of load current. For LB-726-FM, less than (15/Vout\*)% of load current. With "V" option (1.5/Vout\*)% of I DC for LB-701-705; (15/Vout)% of I DC for LB-706

\*Vout equals I out R<sub>l</sub> measured at output terminals of power supplies.

## AC Input

208 ±10% VAC; 57-63 Hz, 3 phase ±10% max. phase unbalance, 4 wire. For operation at other than 57-63 Hz, see AC input option.

## Efficiency

Up to 87% efficiency.

## Response Time

For a 20% load change between 20% and 100% load, the voltage will recover to within 0.5 volt in 150 milliseconds.

## Ambient Operating Temperature Range

Continuous duty from 0° to 71°C with load current rating shown in tables.

## Storage Temperature

−55° to +85° C.

## Overload Protection

### THERMAL

Thermostat requires resetting of circuit breaker to re-energize.

### ELECTRICAL

External overload protection: adjustable, automatic electronic current limiting circuit limits the output current to the preset value, thereby providing protection for load as well as power supply. Current limiting settability to 110% of rated current.

Internal failure protection: provided by primary circuit breaker.

## Overvoltage Protection

Built-in overvoltage protection on all models up to 60 VDC ratings.

## Input Connections

Terminal block on rear of chassis.

## Output Connections

LB-700 series: 2 heavy duty studs 1/2"-20 on LB-701-FM-OV and LB-702-FM-OV models; all other models: 5/16"-24 studs on rear of chassis. LB-720 series: 4 heavy duty studs 5/16"-24 on LB-721-FM-OV and LB-722-FM-OV models; all other models: 2 studs, 5/16"-24.

## Meters

Independent voltmeter and ammeter with ±2% accuracy.

## Controls

### DC OUTPUT AND CONTROL

Coarse and fine voltage adjust and coarse and fine current adjust on front panel.

## POWER

Circuit breaker to protect against internal failure and to provide an on-off control on front panel. Pilot lamp on front panel energizes when circuit breaker is "on".

## Remote Sensing

Provision is made for remote sensing to eliminate effect of power output lead resistance on DC regulation up to 5 Volts in each leg.

## Physical Data

Series	Weight		Size Inches
	Lbs. Net	Lbs. Ship	
LB 700	230	240	7 x 19 x 20-1/16
LB 720	360	410	12-3/16 x 19 x 22-1/16

## Panel Finish

Brushed aluminum clear anodized panels with grey inlay.

## Chassis Finish

Grey, FED. STD. 595 No. 26081.

## Options

### AC Input

Add Suffix	For Operation at:	Price Qty. 1-14	Price Mixed Models Qty. 15 & up	Price Single Model Qty. 15 & up
<b>For LB 700 Series Only</b>				
—V	208 ±10% VAC 47-53 Hz 3 phase	12%	12%	10%
For 50 Hz operation derate current 10%.				
—V1	230 ±10% VAC 57-63 Hz 3 phase	12%	12%	10%
<b>For LB-720 Series Only</b>				
—V1	230 ±10% VAC 57-63 Hz 3 Phase	12%	12%	10%

## Accessories

Chassis slides (LB-701-FM-OV thru LB-706-FM models only) and pot covers. See page 118.

## Guaranteed for 5 Years

5-year guarantee includes labor as well as parts. Guarantee applies to operation at full published specifications at end of 5 years.