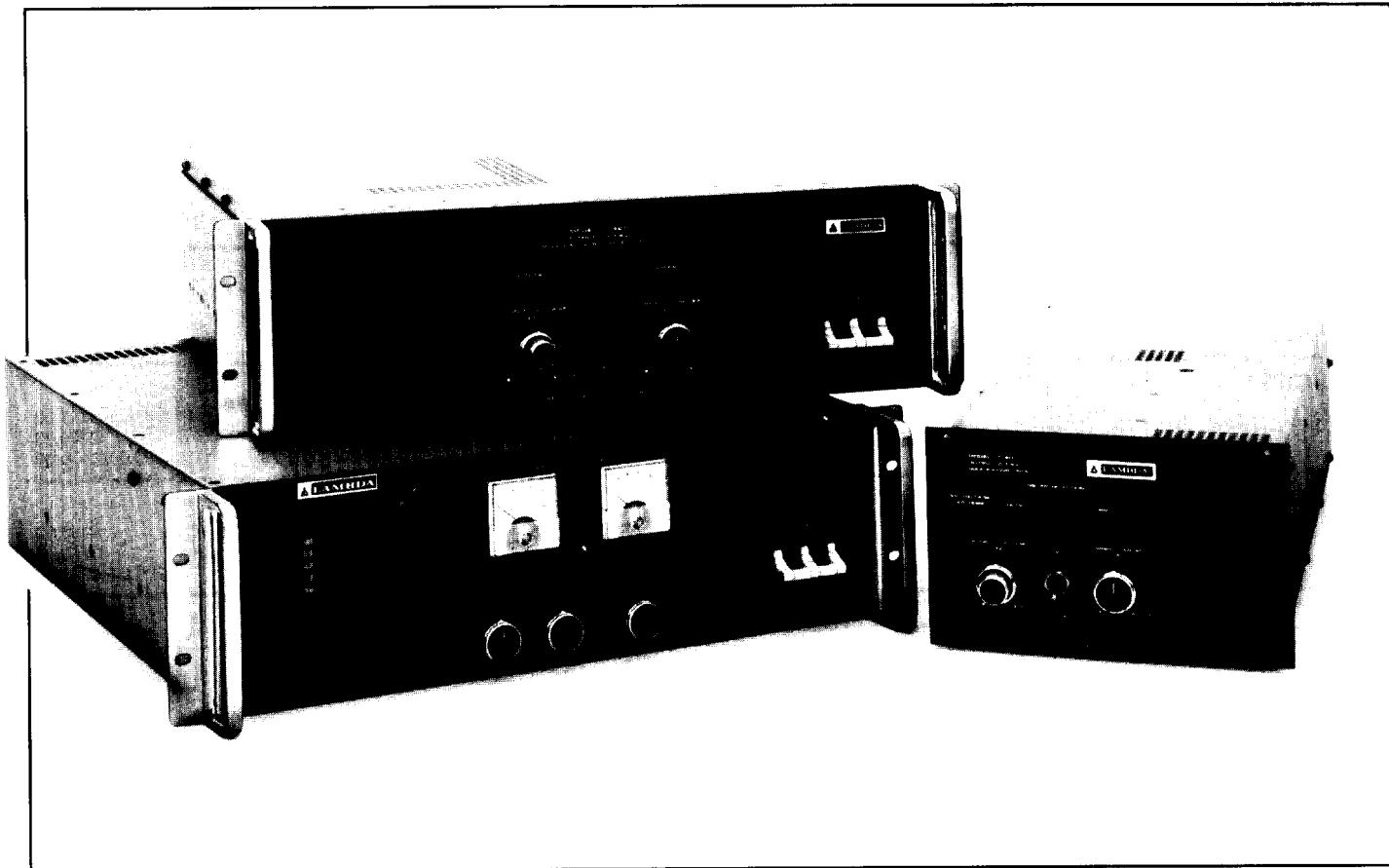


LAMBDA LT SERIES



FEATURES—LT SERIES

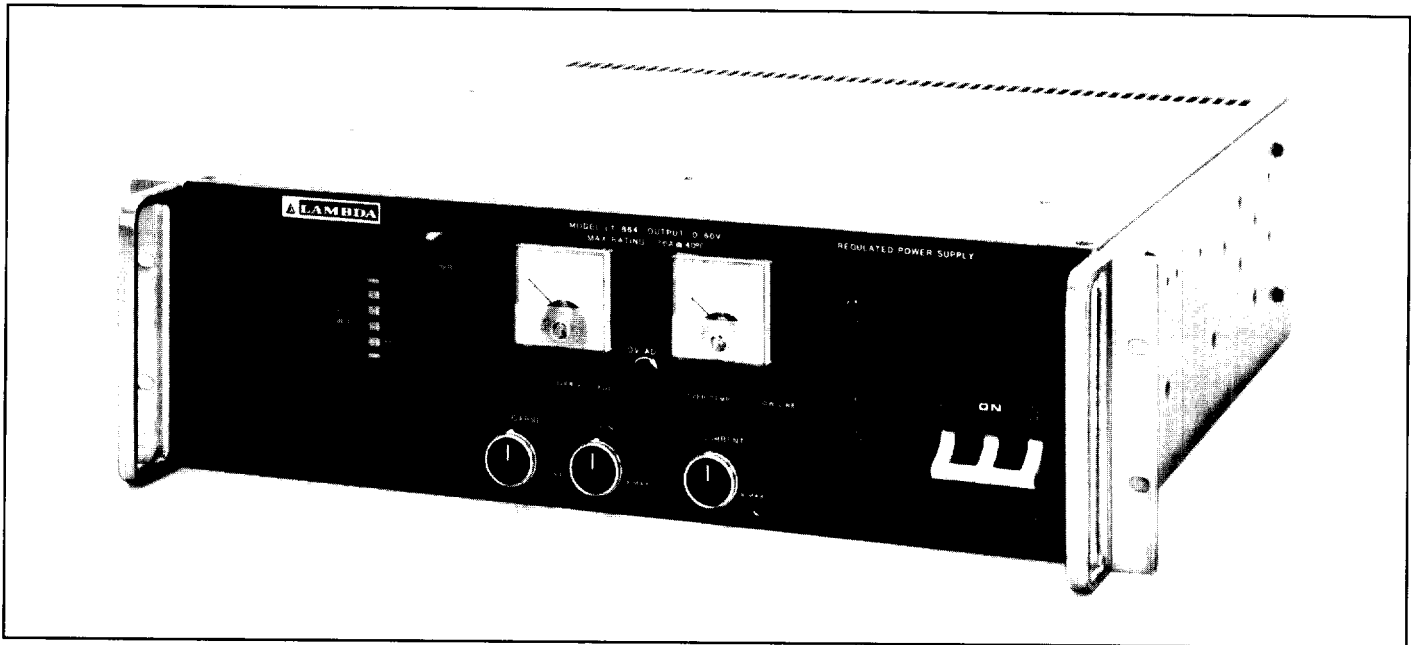
- Lambda's LT Series weighs up to 80% less and occupies only 35% of the volume of equivalent models. They are the smallest, lightest models available today, allowing an engineer to reduce the overall test bed by 50% when high power is a requirement.
- Available in 16 models, up to 60VDC, up to 4kW. Such breadth of line makes the LT Series ideal for all types of burn-in, plating, and ATE type requirements.
- All models are compatible with Lambda's GPIB and MATEPLUS Programmable Power Systems. (The LT-870 Series is a stand alone IEEE-488 Power Supply.) They are ideal for high power programmable power requirements – from voltage programming to the complex functions associated with the MATEPLUS system.
- Designed with overvoltage protection, constant current/constant voltage operation, and an operating temperature range of 71°C. The design engineer can therefore address the rigorous requirements of burn-in, plating, ground support test, and general lab use.
- The LT Series is backed by Lambda's 5 year guarantee. This ensures the product will operate to published specifications for the life of the product per its guarantee. All models have been designed using the best quality components, designed in margins and overall reliability... important for industrial and lab type applications.

LAMBDA LT SERIES

LT Series Selector Guide

MODEL	MAX CURRENT AT AMBIENT OF (AMPS)				PRICE
	40°C	50°C	60°C	71°C	
0-7.5 VOLTS					
LT-801	150.0	135.0	115.0	89.0	\$1733.00
LT-821	300.0	266.0	218.0	160.0	2750.00
LT-861/LT-871	500.0	450.0	400.0	325.0	3200.00/4500.00
0-18 VOLTS					
LT-802	70.0	61.0	52.0	40.0	1733.00
LT-822	150.0	133.0	109.0	80.0	2750.00
LT-862/LT-872	225.0	205.0	180.0	145.0	3200.00/4500.00
0-36 VOLTS					
LT-803	34.5	30.5	26.0	20.0	1733.00
LT-823	80.0	71.0	58.0	42.0	2750.00
LT-863/LT-873	115.0	104.0	92.0	75.0	3200.00/4500.00
0-60 VOLTS					
LT-804	21.5	19.0	16.0	12.5	1733.00
LT-824	50.0	43.0	35.0	25.0	2750.00
LT-864/LT-874	70.0	63.0	56.0	45.0	3200.00/4500.00

NOTE: Maximum output current applies over entire voltage range.



LT-860 Power Supply Series ... \$3200.00
 LT-870 GPIB Power Supply Series ... \$4500.00

INTRODUCING THE NEW LT-870 STAND ALONE GPIB POWER SUPPLY

Lambda's new LT-870 Series is a stand alone IEEE-488 GPIB power supply. It is designed with three internal PC cards allowing for voltage and current limit programming over the bus.

The Interface Card handles the communication over the bus. The Programming Card provides the appropriate D/A conversion necessary for voltage and current limit programming over the entire voltage range. The third card, the Interconnect Card, is designed with these rear panel features:

- 5-bit DIP switch for primary address selection.
- Pushbutton reset switch—to reset the voltage and current limit to zero.
- Auto/manual select switch sets the power supply for either local or computer control.
- Connector available for remote monitoring of voltage and current.

The stand alone LT-870 IEEE-488 Power Supply is backed by Lambda's 5 year guarantee and is available for one day delivery from stock.

SPECIFICATIONS — LT SERIES

DC OUTPUT

Voltage range shown in table. See page 112.

REGULATED VOLTAGE

CONSTANT

regulation, line	0.02% + 2mV for line variations from 187 to 242VAC (205 to 265VAC on "V1" option) for LT-800 series. 187 to 229VAC (207 to 253VAC on "V1" option) for LT-820 series. 0.05% for line variations from 187 to 265VAC for LT-860 and LT-870 series.
regulation, load	0.02% + 2mV on LT-801, 802, 821, 822; 0.02% + 4mV on LT-803, 804, 823, 824; 0.05% on LT-860 and LT-870 series for load variations from 0 to full load.
remote programming resistance	200Ω/volt nominal.
remote programming voltage	volt per volt.
ripple and noise	10mV RMS, 50mV pk-pk for LT-801, 821. 15mV RMS, 100mV pk-pk for LT-802, 803, 804, 822, 823, 824. 20mV RMS, for LT-860 and LT-870 series.
temperature coefficient	(0.02% + 50μV)/°C.

CONSTANT CURRENT

(Current regulated line and load) Automatic Crossover.

voltage range	as shown in Table.
current range	5% to full load current.
regulation, line	0.3% of Io(max) for line variations from 187 to 242VAC (205 to 265VAC on "V1" option) for LT-800 series. 0.3% of Io(max) for line variations from 187 to 229VAC (207 to 253VAC on "V1" option) for LT-820 series. 0.3% of Io(max) for line variations from 187 to 265VAC on LT-860 and LT-870 series.
regulation, load	0.3% of Io (max) for load variations from 5% to rated DC voltage.

AC INPUT

line	LT-800 series: 187 to 242VAC (205 to 265VAC on "V1" option), 47-63Hz. (Derate all ratings by 10% at 47-53Hz) LT-820 series: 187 to 229VAC, 3 phase ± 10% max phase imbalance, 4 wire, 47-63Hz (207 to 253VAC on "V1" option). (Derate 40°C ratings by 10% at 47-53Hz.) LT-860 and LT-870 series: 187 to 265VAC, 3 phase ± 10% max phase imbalance, 4 wire, 47-63Hz.
power	LT-800 Series: 1985 watts maximum. LT-820 Series: 4000 watts maximum. LT-860, LT-870 Series: 5000 watts maximum.

EFFICIENCY

Minimum 65% at maximum output voltage for LT-800 series, 70% for LT-820 series, 78% for LT-860 and LT-870 series.

INPUT CURRENT

18A RMS max on LT-800 series, 17A RMS max per phase on LT-820 series, LT-860 and LT-870 series.

OPERATING TEMPERATURE RANGE

Continuous duty from 0°C to 71°C with appropriate deratings from 40°C to 71°C.

STORAGE TEMPERATURE RANGE

-55°C to +85°C.

OVERLOAD PROTECTION

THERMAL

Thermostat protects unit from excessive ambient temperature as well as inadequate air velocity. AC power must be momentarily removed from unit after thermal shutdown in order to restore operation.

ELECTRICAL

External overload protection — adjustable, automatic electronic current-limiting circuit limits output current to preset value. Current-limiting setability to 105% of rated current via front panel adjust.

OVERVOLTAGE PROTECTION

Built-in, adjustable overvoltage protection is standard on all sets. When pre-set voltage is exceeded, the overvoltage protector crowbars the output and removes the inverter drive. AC power must be momentarily removed from unit after overvoltage shutdown in order to restore operation.

OVERVOLTAGE PROTECTION ADJUSTABLE RANGES

Model	Vov(Min)	Vov(Max)
LT-801/821/861/871	3.5V	10V
LT-802/822/862/872	6V	24V
LT-803/823/863/873	9V	47V
LT-804/824/864/874	12V	70V

IN-RUSH LIMITING CIRCUIT

Limits in-rush current at turn-on to 200% of full load peak current.

COOLING

Fan cooled. Forced air cooling utilizing all metal, shaded pole, ball bearing, long life fan. (No lubrication needed). Leave adequate clearance at all air intakes and exhausts. Exhaust is at rear of unit.

CONTROLS

DC OUTPUT CONTROLS

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

OVERVOLTAGE PROTECTION

Overvoltage trip point set by screwdriver adjust on front panel.

POWER

On-off switch on front panel of LT-800 series. On-off circuit breaker on front panel of LT-820, LT-860 and LT-870 series.

INPUT AND OUTPUT CONNECTIONS

Heavy duty barrier strips for AC input, ground and sensing. DC output via bus bar at rear of chassis.

METERS

Digital panel meter standard on LT-800, 820 series. Monitors output voltage/current by means of a volt/amp selector switch on LT-800 series. Separate digital panel meters on LT-820 series allow simultaneous monitoring of output voltage and current. Separate analog meters on LT-860 and LT-870 series provide for simultaneous monitoring of output voltage and current. Additional LED on front panel of LT-870 indicates auto/manual operation.

LED STATUS INDICATORS

An overvoltage/overtemperature indicator lamp will light to notify the user of the occurrence of either an overvoltage or overtemperature shutdown condition. AC power must be removed from the unit to reset the power supply and the light. A line fault indicator with automatic reset indicates power loss or loss of a phase on LT-860 and LT-870 series.

REMOTE SENSING

Provision is made for remote sensing to eliminate effect of power output lead resistance on DC regulation.

REMOTE ON/OFF

Isolated terminals on LT-860 and LT-870 series allows for these remote functions: Turn-on—Logic zero, short circuit or open circuit; Turn-off—provide 5mA into ± R terminals.

EMI

Conducted EMI conforms to FCC 20780 class A on LT-800 and LT-820 series.

PHYSICAL DATA

Package Model	Lbs. Net	Lbs. Ship	Size Inches
LT-800 series	30	37	5 ³ / ₁₆ × 8 ³ / ₈ × 19 ³ / ₁₆
LT-820 series	70	82	5 ³ / ₁₆ × 19 × 16 ¹ / ₂
LT-860, LT-870 series	60	72	5 ³ / ₁₆ × 19 × 17 ¹ / ₂

OPTIONS

AC INPUT

Series Model	Add Suffix	For Operation at:	Price
LT-800	-V1	205 to 265VAC 47-63Hz	12%
LT-820	-V1	207 to 253VAC 47-63Hz	12%

ACCESSORIES

Pot Covers available on LT-800, LT-860 and LT-870 series. LRA-17 Rack Adapter available for LT-800 series. Chassis slides available for LT-820, LT-860 and LT-870 series. See page 116.

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.