

# PART III—LAB, TEST EQUIPMENT AND SYSTEM POWER SUPPLIES

## Lambda LE series



### Features—LE series

45% smaller than an equivalent SCR switching power supply

Designed to meet military environment MIL-STD-810C

Digital meter readout

Convection cooled, no fans or blowers

Constant voltage/constant current

Overvoltage protection—built in on all models

Guaranteed 5 years

MODEL	MAX CURRENT AMPS AT AMBIENT OF				PRICE
	40° C	50° C	60° C	71° C	
<b>0-7.5 VOLTS</b>					
LES-EE-01-OV	60	52	41	30	1588
LES-F-01-OV	100	83	66	47.5	2021
<b>0-18 VOLTS</b>					
LES-EE-02-OV	29	25	20	14	1588
LES-F-02-OV	47.5	41	32.5	23.5	2021
<b>0-36 VOLTS</b>					
LES-EE-03-OV	14.5	12.5	10	7	1588
LES-F-03-OV	24	20.4	16.5	12	2021
<b>0-60 VOLTS</b>					
LES-EE-04-OV	9	7.7	6.2	4.5	1588
LES-F-04-OV	15	12.8	10.3	7.5	2021

Note: Maximum output current applies over entire output voltage range.

# Specifications—LE Series

## DC Output and Rating

Refer to the table.

### Regulated Voltage

regulation, line ..... 0.02% +2 mV for line variations from 105 to 132 VAC (or 187 to 242 VAC on 'V' options, 205 to 265 VAC on 'VI' options).

regulation, load ..... 0.02% +2 mV (LES-01, 02)  
0.02% +4 mV (LES-03, 04) for load variations from 0 to full load.

remote programming resistance ..... 200Ω/volt nominal

remote programming voltage ..... volt/volt

ripple and noise ..... 10 mV RMS; 50 mV pp for LES-01  
15 mV RMS; 100 mV pp for LES-02, 03, 04

### temperature

coefficient ..... (0.02% +50 μV)/°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 ..... 0.5% +50 mA (LES-01, 02)  
0.5% +20 mA (LES-03, 04) for input variations from 105 to 132 VAC (or 187 to 242 VAC on 'V' opts, 205 to 265 VAC on 'VI' opts).

regulation, load ..... 0.5% of I<sub>o</sub>max for load changes from 5% to rated DC voltage.

### AC Input

line ..... 105-132 VAC (47-63 Hz) standard input (derate output current by 5% at 50 Hz).

power ..... 750 watts max (LES-EE); 1250 watts max (LES-F) at 0.6 pF at maximum output voltage, nominal line.

efficiency ..... Minimum 60% at maximum output voltage.

soft start circuit ..... Limits inrush current at turn on to 200% of full load peak current.

input current ..... 15 A RMS max (LES-EE)  
25 A RMS max (LES-F)

### Ambient Operating Temperature

Continuous duty from 0°C to 71°C with appropriate deratings (40°C to 71°C—see table).

### Storage Temperature Range

—55°C to +85°C.

### Overload Protection

#### THERMAL

By self resetting thermostat.

#### ELECTRICAL

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

### Overvoltage Protection

Built in, adjustable overvoltage protection standard on all sets. When preset voltage is exceeded, the overvoltage protector crowbars the output and removes the inverter drive. See table for OV range on each unit.

## OVERVOLTAGE PROTECTION ADJUSTABLE RANGES—LE SERIES

### ADJUSTABLE OVERVOLTAGE PROTECTOR RANGE

V <sub>out</sub>	V <sub>ov(min)</sub>	V <sub>ov(max)</sub>
0 TO 7.5 VDC	3V	10V
0 TO 18VDC	6V	24V
0 TO 36VDC	9V	47V
0 TO 60VDC	12V	70V

### EMI

Conducted EMI conforms to MIL-I-6181D.

### Cooling

Convection cooled—no fans or blowers.

### Input and Output Connections

Heavy duty barrier strip and output studs on rear of chassis.

### Meters

Digital panel meter standard on all sets monitors output voltage/current by means of a volt/amp selector switch.

### 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.

#### Remote sensing

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

#### Fungus Proofing

All units are rendered fungi inert.

#### Options

##### AC Input

Add Suffix	For Operation at:	Price Qty. 1-14	Price Mixed Models Qty. 15 and up	Price Single Model Qty. 15 and up
-V*	187-242 VAC (47-63 Hz) (derate current 10%)	12%	12%	10%
-VI*	205-265 VAC (47-63 Hz)	12%	12%	10%

\*No additional 5% derating for 50 Hz operation.

#### Accessories

Rack Adapters LRA-1, LRA-2 (LES-EE) See page 105.  
Chassis slides KHT-34-012 (LES-F) See page 105.

#### Physical Data

Series	Weight		Size Inches
	Lbs. Net	Lbs. Ship	
LES-EE	27	33	5-3/16 x 8-3/8 x 16
LES-F	40	50	3-15/32 x 19 x 16-1/2

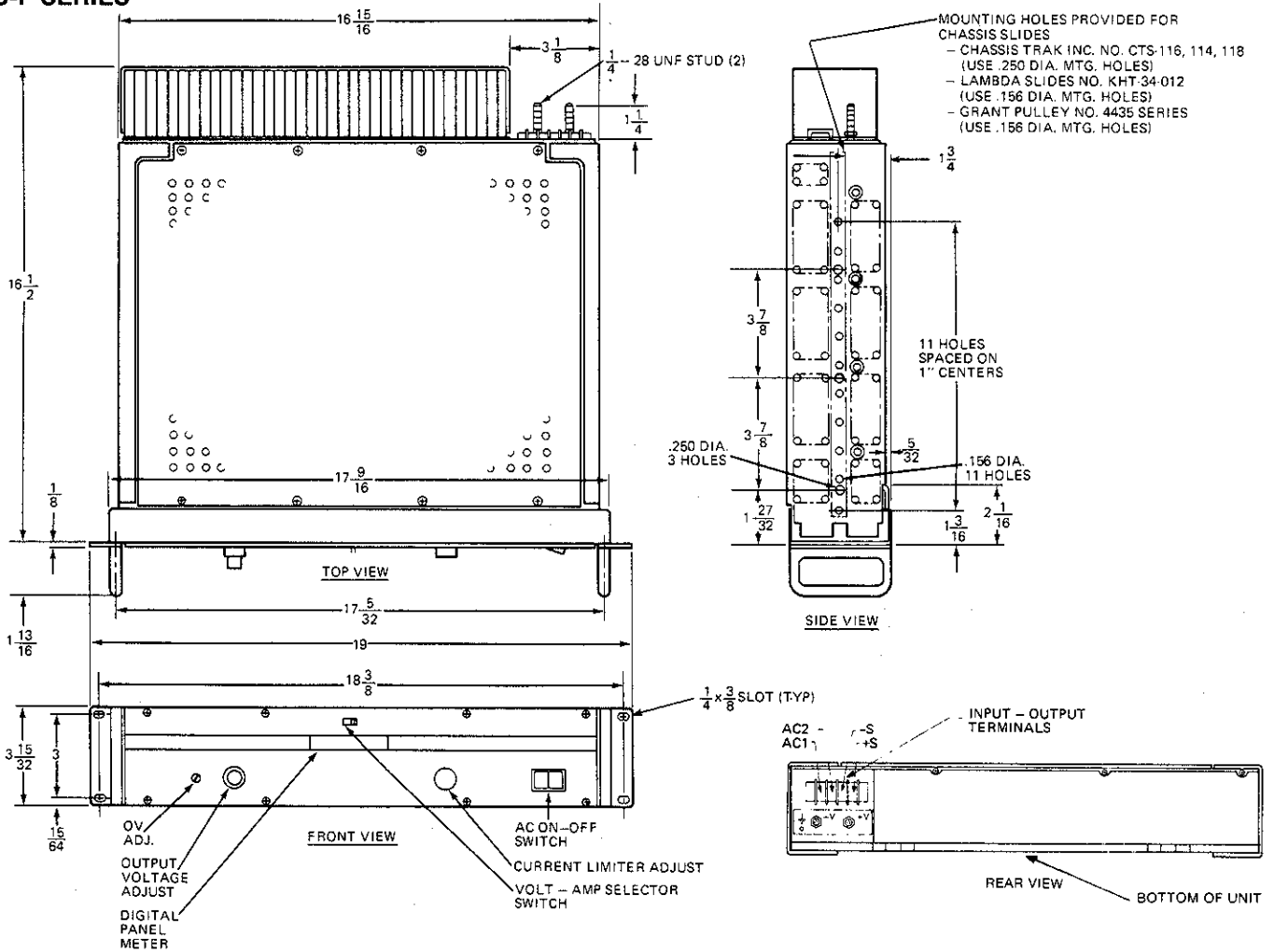
#### Guaranteed for 5 Years

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

# PART IV—DIMENSIONAL DRAWINGS

## LES SERIES POWER SUPPLIES

### LES-F SERIES



### LES-EE SERIES

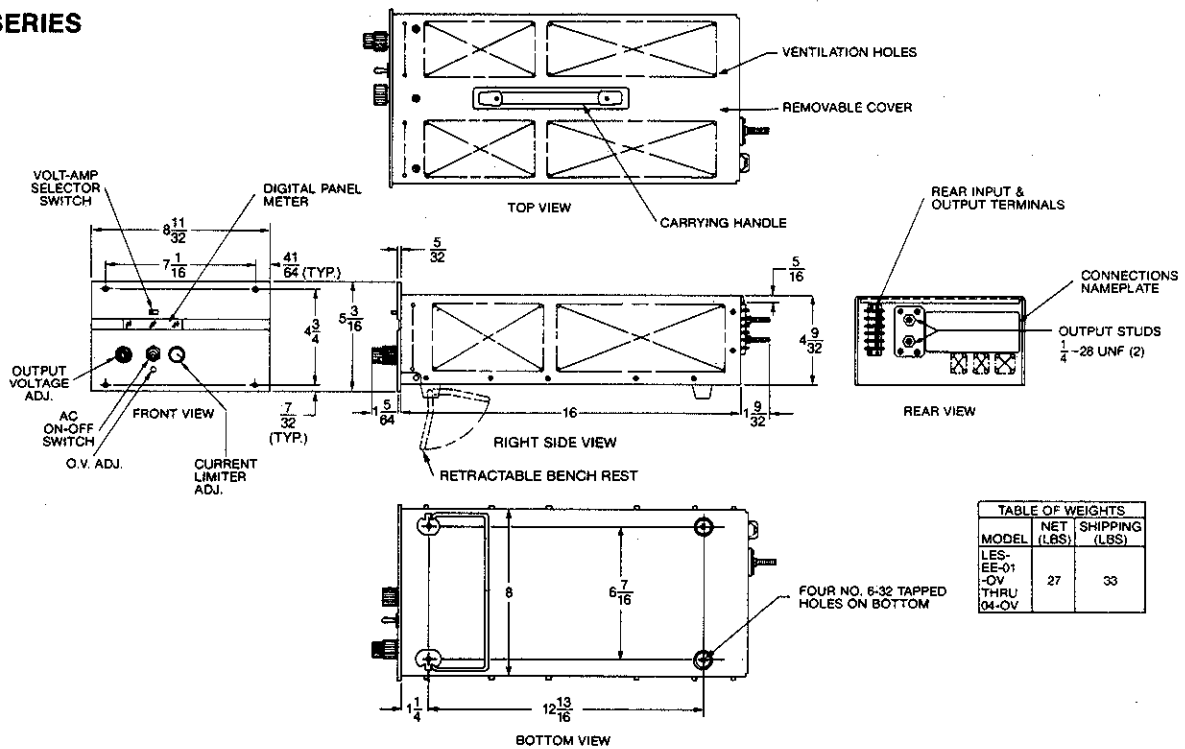


TABLE OF WEIGHTS		
MODEL	NET (LBS)	SHIPPING (LBS)
LES-EE-01	27	33
-OV THRU 04-OV		