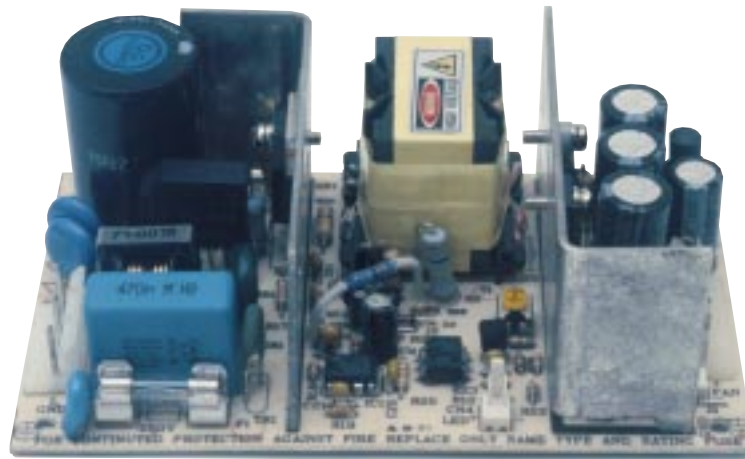




**LIEN ENGINEERING, INC.**

# Universal Open Frame Power Supplies

## **S59 Series 50 and 100 Watt Single and Dual Output Switching Power Supplies**



*Ideal For External Disk Drives!*

### **Features**

- Auto Selecting, Full Range 90 - 260 VAC Input
- Proven High Reliability Design
- High Efficiency
- Fan and Power "On" LED Output
- UL, CSA, TUV Approved
- On Board EMI/RFI Filtering - Meets FCC Class B
- Reliable MOS-FET Design

For over 25 years, Lien Engineering, Inc. has been producing innovative Power Conversion and Enclosure Products for large and small computers, computer peripherals, medical, communications, and other industrial requirements.

**LIEN ENGINEERING, INC.**

7940 Arjons Drive • San Diego, California 92126 U.S.A. • Phone: (619) 695-1070 • FAX: (619) 695-6501

# SPECIFICATIONS

## INPUT

INPUT VOLTAGE: 90VAC to 260VAC  
47 - 63 Hz

No external jumpers or switching required  
INRUSH CURRENT: <30A Peak @ 115VAC  
<15A Peak @ 230VAC

INPUT CURRENT: 1A Max RMS @ 115VAC  
EFFICIENCY: >75% Typical at full load  
EMI FILTER: Meets FCC Class B &  
VDE Class A (Class B optional)

ADJUSTMENT RANGE:  $\pm 10\%$  Rated output  
CROSS REGULATION:  $\pm 2\%$  for +5V;  $\pm 5\%$  for +12V  
NOISE: (mv P-P) 60mV for +5V; 100mV for +12V  
HOLD-UP TIME: 12ms Minimum at full load and  
115VAC nominal line  
LINE REGULATION: 0.5% Maximum  
PROTECTION: Foldback @ 105% to 150% of rated  
output  
Automatic recovery  
5.6VDC  $\pm 10\%$  for +5V  
Continuous short circuit protection

## OUTPUT

OUTPUT RATING: (Amps)+5VDC @ 0 - 3.0  
+12VDC @ 0 - 3.0/5.0pk  
"Power ON" LED output: +5VDC with  
onboard 270 $\Omega$  limit resistor  
Output connection for fan: +12VDC @  
100mA with filter  
RIPPLE & NOISE: 1% Peak to peak maximum  
of all outputs

## ENVIRONMENTAL

OPERATING TEMPERATURE: 0°C to 55°C  
STORAGE TEMPERATURE: -40°C to 85°C  
THERMAL REGULATION: Forced air required.  
MTBF: >100,000 POH at maximum  
operating temperature  
DIMENSIONS: 3.0" x 5.0" x 1.4"

| MODEL    | POWER | VOLTAGE   | CURRENT       |
|----------|-------|-----------|---------------|
| S59P5    | 50W   | 5V        | 10.0A         |
| S59P12   | 50W   | 12V       | 4.0A          |
| S59P15   | 50W   | 15V       | 3.0A          |
| S59P5N5  | 50W   | 5V<br>-5V | 7.0A<br>3.0A  |
| S59P5P12 | 50W   | 5V<br>12V | 2.5A<br>3.0A  |
| S59F5    | 100W  | 5V        | 20.0A         |
| S59F12   | 100W  | 12V       | 8.0A          |
| S59F15   | 100W  | 15V       | 6.5A          |
| S59F5N5  | 100W  | 5V<br>-5V | 16.0A<br>4.0A |
| S59F5P12 | 100W  | 5V<br>12V | 5.0A<br>6.0A  |

