



# SP50U



## 50 WATT, Universal Input Fully Enclosed Switching Power Supply





### FEATURES

- ✔ UNIVERSAL INPUT (AC85-264V)
- ✔ BUILT-IN OVERVOLTAGE PROTECTION
- ✔ OVERCURRENT PROTECTION
- ✔ LIGHTWEIGHT CONSTRUCTION
- ✔ METAL CHASSIS WITH COVER
- ✔ COMPACT, LOW-PROFILE PACKAGES
- ✔ 3 YEAR WARRANTY

### SAFETIES / EMI



 FCC-B  
 EN 55022-B  
 VCCI-II

### ELECTRICAL SPECIFICATIONS

All specifications are typical at nominal input, full load.

### INPUT SPECIFICATIONS

Input Voltage.....	AC 85V-264V DC 110V-340V
Input Frequency.....	47 ~ 63 Hz
Input Current.....	0.52 ~ 1.2A
Inrush Current (100/230VAC cold start) .....	16 ~ 45A

### OUTPUT SPECIFICATIONS

Output Voltage.....	See Chart
Output Adjustment.....	± 10%
Efficiency.....	70 ~ 79%
Over-Voltage Protection.....	Zener Limiter
Over-Current Protection.....	Automatic Recovery (105% min)
Ripple and Noise.....	150 mVp-p max.
Hold-Up Time.....	20-210 mS typ
Line/Load Regulation.....	See Chart
Rise Time.....	100 mS max.
Leakage Current (100/230VAC).....	Vin= 100V      0.5mA max. Vin= 230V      0.75mA max.

### GENERAL SPECIFICATIONS

MTBF @ 50°C .....	>184,000 Hours
Isolation Voltage	
Primary to Secondary.....	3000VAC
Primary to Case.....	1500VAC.
Secondary to Case.....	500VAC.
Isolation Resistance.....	100-Mohms min.

### ENVIRONMENTAL SPECIFICATIONS

Operating Temperature .....	0°-60°C Derates linearly 2.5%/°C after 50°C
Cooling.....	Convection
Temperature Coefficient.....	0.02% / °C
Humidity.....	20-85% Rh (non-condensing)
Storage Temperature.....	-20°C -- 85°C
Shock Vibration.....	Shock: 20G (3 directions each 3 times) Vibration: 10 ~ 55Hz

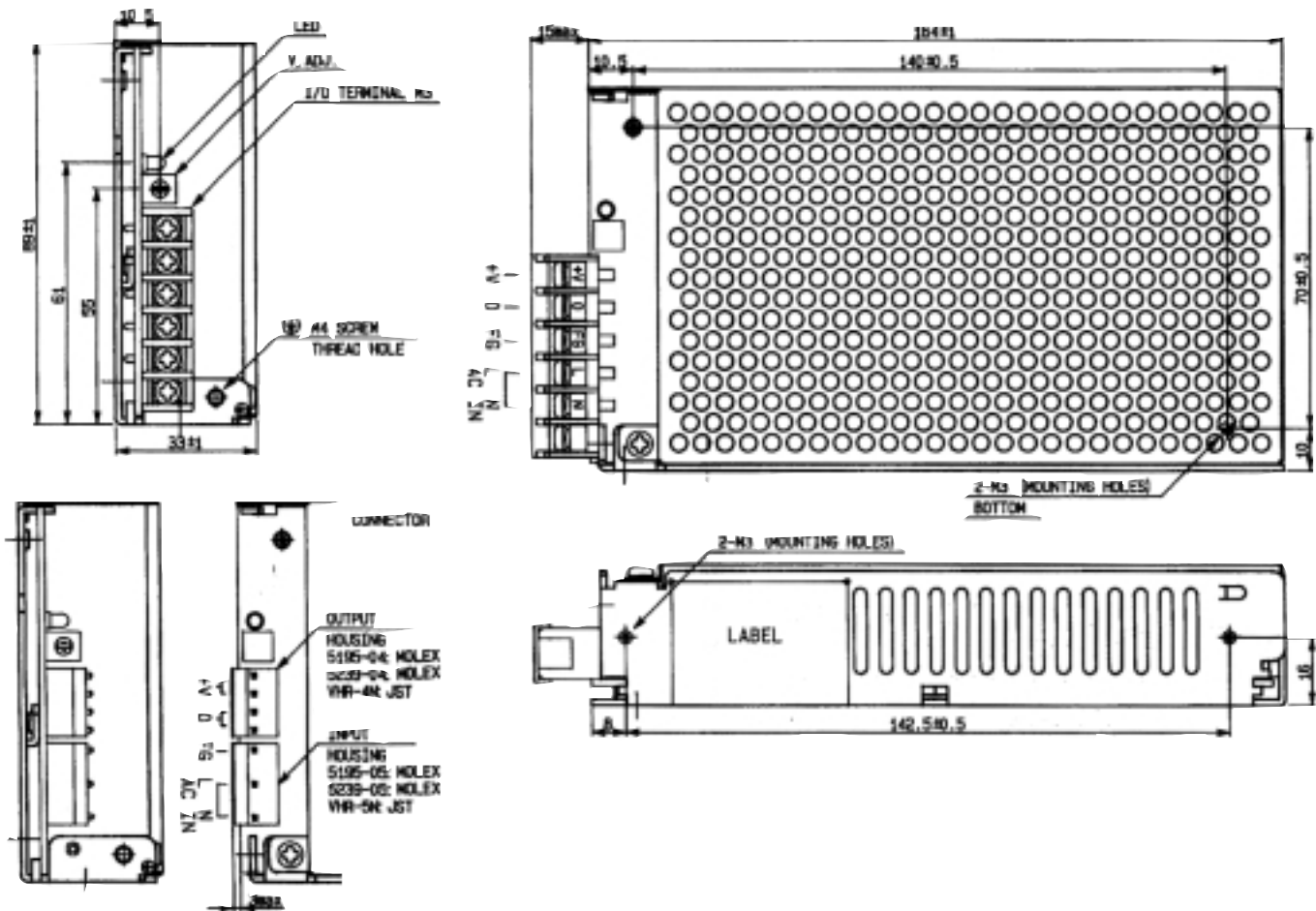
### PHYSICAL SPECIFICATIONS

Metal Enclosed - Terminal Block

# Series

MODEL	OUTPUT VOLTAGE	OUTPUT CURRENT		EFFICIENCY	LINE REGULATION	LOAD REGULATION
		@100V	@230V			
<b>SP50U-03S</b>	3.3 VDC	10.0 A	12.0 A	70%	20 mV max.	60 mV max.
<b>SP50U-05S</b>	5 VDC	10.0 A	12.0 A	72%	20 mV max.	60 mV max.
<b>SP50U-12S</b>	12 VDC	4.6 A	5.5 A	77%	20 mV max.	60 mV max.
<b>SP50U-15S</b>	15 VDC	3.7 A	4.4 A	77%	20 mV max.	60 mV max.
<b>SP50U-24S</b>	24 VDC	2.3 A	2.5 A	78%	30 mV max.	120 mV max.
<b>SP50U-48S</b>	48 VDC	1.2 A	1.4 A	78%	50 mV max.	180 mV max.

## SP50U



**NOTE:**

All specifications typical and nominal / full load and 25°C unless otherwise noted.  
 Mounting screw length should not exceed 0.31 inches or 8 mm.  
 Avoid sustained operation in overload or dead short conditions.  
 Specifications subject to changes without notice.

- No. 6-32 mounting holes standard
- Dimensions in mm
- Terminal block or "pin" type connector available