**NEW • AUTO-RANGING INPUT** 

• SMALL SIZE

LOW COST

# **150 WATT**

SWITCHING POWER SUPPLY



## **DESCRIPTION**

The UL150 Series of compact power supplies offers quad output models with 3.3V and are capable of delivering 150 watts of continuous output power. An auto-ranging input allows for worldwide line voltages to be applied without a jumper or selector strap. All models meet CISPR 22 Class B and FCC class B emission limits, comply with UL, CSA and TUV safety requirements and have the CE Mark to satisfy international requirements.



- EN61000-3-2, 3 compliant
- Auto-ranging input
- Remote On/Off
- Overvoltage protection
- Short circuit protection with auto-recovery
- Power good signal/LED on power supply
- Thermal shutdown
- 100% burn-in at full rated load
- 3.3 Volt output

# **OUTPUT VOLTAGE/CURRENT RATINGS CHART**

	Output #1				Output #2			Output #3				Output #4				
Model	Vnom	Imin	Imax	Tol.	Vnom	Imin	Imax	Tol.	Vnom	Imin	Imax	Tol.	Vnom	Imin	Imax	Tol.
UL150-42-3	+5V	2.0A	15A	5%	+3.3V	0A	15A	5%	+12V	0.5A	3A	5%	-12V	0A	1A	3%
UL150-46-3	+5V	2.0A	15A	5%	+3.3V	0A	15A	5%	+15V	0.5A	3A	5%	-15V	0A	1A	3%
UL150-40-3	+5V	2.0A	15A	5%	+3.3V	0A	15A	5%	+12V	0.5A	3A	5%	-5V	0A	1A	3%
UL150-45-3	+5V	2.0A	15A	5%	+3.3V	0A	15A	5%	+24V	0.5A	2A	5%	-12V	0A	1A	3%

NOTE: (1) Total output power for UL150 is 150W with 20 CFM forced air cooling, 100W convection cooled.

 $(2) \ \ Total\ combined\ output\ power\ for\ the\ +5V\ and\ +3.3V\ not\ to\ exceed\ 100W\ with\ 20CFM\ or\ 70W\ with\ no\ air.$ 

#### **GENERAL SPECIFICATIONS**

Specifications are typical at 25°C, nominal line, 75% load

Efficiency: 70%

Hold-up time: 20 msec min. at 125VAC/80% load

Line regulation:  $\pm 1\%$  maximum at full load

Inrush current: 35A at 115VAC or 70A @ 230VAC

at 25°C cold start

Withstand voltage: 3000VAC from input to output

1500VAC from input to ground

Operating temperature:  $0^{\circ}\text{C}$  to  $+70^{\circ}\text{C}^*$ Storage temperature:  $-20^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$ 

Relative humidity: 5% to 90% non-condensing MTBF: 100,000 hours (MIL-HBK-217D) EMI requirements: In compliance with CISPR 22

(EN 55022) Class B and FCC Class B

Safety requirements: Meets or exceeds:

(a) UL1950

(b) CSA C22.2 No. 234 (c) IEC 950 (EN60950)

Switching frequency: 42kHz

## **INPUT SPECIFICATIONS**

Input voltage: 90-132VAC, 180 to 264 VAC

(auto-ranging)

Input frequency: 47 to 63 Hz
Input current: 5A at 115VAC

2.5A at 230VAC

Leakage current: 3.5mA at 230VAC

#### **OUTPUT SPECIFICATIONS**

Output voltage: See Rating Chart
Output current: See Rating Chart
Ripple and noise: 1% pk-pk maximum

Overvoltage protection: Set at 110-135% of maximum

output voltage (on output #1 only)

Overcurrent protection: All outputs protected under short

circuit conditions

Temperature coefficient:  $\pm 0.1\%$ /°C maximum

Transient response: Maximum excursion of 5%,

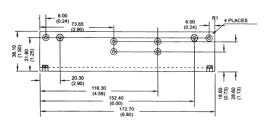
recovering to 1% of final value in less than 500us after a 50%

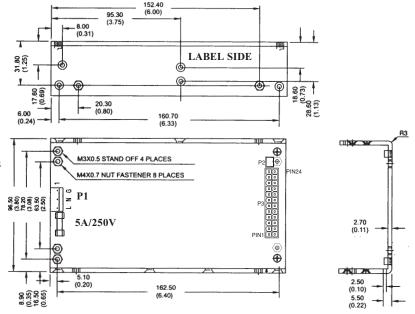
load change

#### **MECHANICAL SPECIFICATIONS**

#### **NOTES:**

- 1. Dimensions shown in mm (inches).
- 2. Tolerance 0.5mm [0.02] maximum.
- 3. Input connector P1 mates with Molex housing 09-91-0500 and Molex 2478/2578/8818 Series crimp terminal
- 4. Output connector P2 is for an external fan. Pin 1 is Fan +, Pin 2 is Fan Return
- 5. Output connector P3 mates with Molex housing 39-01-2240 and Molex 44476 Series crimp terminals
- 6. Weight: 600 grams approx.





# **PIN CHART**

1	2	3	4	5	6	7	8	9	10	11	12
3.3V +Sense	Output #2	Output #2	Return	Return	Return	Output #1	Output #1	Output #3	Return	Output #4	Power Good
13	14	15	16	17	18	19	20	21	22	23	24
3.3V -Sense	Output #2	Output #2	Return	Return	Return	Output #1	Output #1	Output #3	Return	Output #4	Return



# Your Source of Power ...

<sup>\*</sup> Derate linearly from 100% load at 50°C to 50% load at 70°C