NEW • AUTO-RANGING INPUT

• SMALL SIZE

LOW COST

150 WATT

SWITCHING POWER SUPPLY



DESCRIPTION

The HUL150 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.

FEATURES

- 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.												
HUL150-42-3	+5V	2.0A	15A	5%	+3.3V	0A	15A	5%	+12V	0.5A	3A	5%	-12V	0A	1A	3%
HUL150-46-3	+5V	2.0A	15A	5%	+3.3V	0A	15A	5%	+15V	0.5A	3A	5%	-15V	0A	1A	3%
HUL150-40-3	+5V	2.0A	15A	5%	+3.3V	0A	15A	5%	+12V	0.5A	3A	5%	-5V	0A	1A	3%
HUL150-45-3	+5V	2.0A	15A	5%	+3.3V	0A	15A	5%	+24V	0.5A	2A	5%	-12V	0A	1A	3%

NOTE: (1) Use part number UL150-XX-X for product without harmonic correction. Example: UL150-42-3

- (2) Total output power for HUL150 is 150W with 20 CFM forced air cooling, 100W convection cooled.
- (3) 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: Approved to:

(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: ±0.1%/°C maximum
Temperature responses: ±0.1%/°C maximum

Transient response: Maximum excursion of 5%,

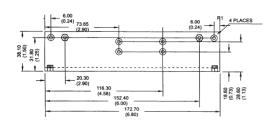
recovering to 1% of final value in less than 500us after a 50%

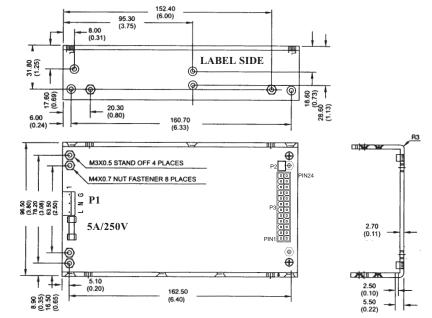
load change

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 P3 mates with Molex housing 39-01-2240 and Molex 44476 Series crimp terminal
- 5. 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



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^{*} Derate linearly from 100% load at 50°C to 50% load at 70°C