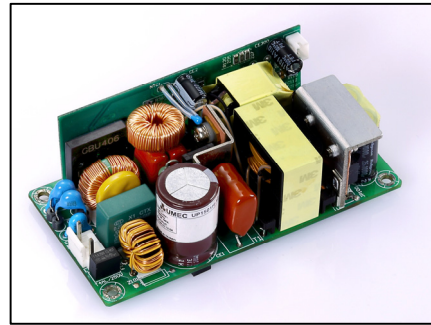


UP1501H-()() SERIES

150 Watt AC/DC Open Frame

- ◆ Universal Input 90 to 264 VAC
- ◆ EMI Meets FCC/CISPR 22 Class B
- ◆ Continuous Short Circuit Protection
- ◆ MTBF 300Khrs
- ◆ RoHS Compliant

Green Product
RoHS



SPECIFICATIONS

All specifications are typical at nominal line, full load and 25°C unless otherwise noted.

INPUT SPECIFICATIONS

Input Voltage Range 90-264VAC
Input Frequency 47-63 Hz
Inrush Current 80A max. @230VAC(Cold Start)
40A max. @110VAC(Cold Start)

GENERAL SPECIFICATIONS

Hold-up Time 10mS typ.
Leakage Current 3mA max.
Short Circuit Protection Continuous
Continuous Output Power 150W max.
Hi-pot Isolation: Input / Output 4242 VDC

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature Range 0°C to 70°C
Derating 50°C to 70°C 2%/°C
Temperature Coefficient ±0.02%/°C
Storage Temperature Range -40°C to +85°C
Humidity, Non-Condensing 0 to 95% RH
Cooling Forced Air Cooling with 20CFM fan
EMI Meets FCC/CISPR 22 Class B Specification



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UP1501H-()()

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REV.3

OUTPUT SPECIFICATIONS

Model Number	Output Voltage (Volts)	Output Current (Amps)		FAN OUTPUT	Max Power (Watt)	Efficiency ³ (typ.)	Ripple ¹ P-P (mV)	Total Regulation ²
		Min.	Rated					
UP1501H-12	12	0	12.5	12V/0.3A	150	91%	120	±4%
UP1501H-15	15	0	10	12V/0.3A	150	91%	150	±4%
UP1501H-24	24	0	6.25	12V/0.3A	150	92%	240	±4%
UP1501H-48	48	0	3.125	12V/0.3A	150	92%	480	±4%
UP1501H-54	54	0	2.78	12V/0.3A	150	92%	540	±4%

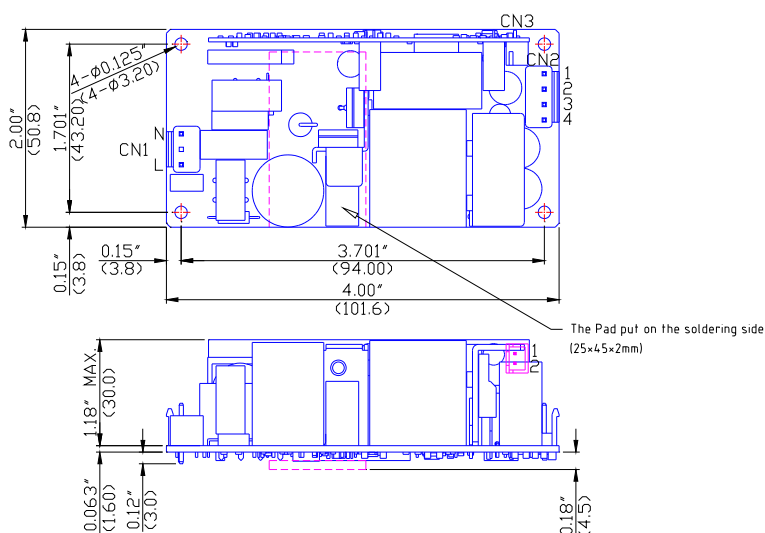
NOTES:

1. Add a 0.1uF ceramic capacitor and a 10uF E.L. capacitor to the output connector. Peak to peak and RMS metering equipment shall have a 20 MHz response with probes and cables maintaining frequency response from 200 Hz to 100MHz bandwidth. Output ripple and spikes are measured directly at the output terminals of the power supply without the use of the probe ground clip.
2. Total regulation is defined as the static output regulation at 25°C, including initial tolerance, line voltage and load current within stated limits.
3. All specifications are defined at nominal line 230Vac, full load and 25°C ambient unless otherwise noted.
4. The power supply can afford 150W output power at forced air cooling with 20CFM/600LFM fan condition, but it only can afford 80W output power at convection condition.

PHYSICAL SPECIFICATIO

Weight: 194g

UP1501H-XX



CN1 input connector JST B 3P-VH with second pin removed or equivalent	
Pin	Input voltage
L&N	90-264 VAC

CN2 output connector JST B 4P-VH 4 Pin or equivalent	
Model	
Pin	UP1501H-XX
1	Common
2	Common
3	Vo
4	Vo

CN3 FAN connector P110I-02 2PIN or equivalent	
Pin	UP1501H-XX
1	FAN+
2	FAN-

NOTES:

1. All dimensions in inches (mm).
2. Tolerance .XX=±0.05", .XXX=±0.02"



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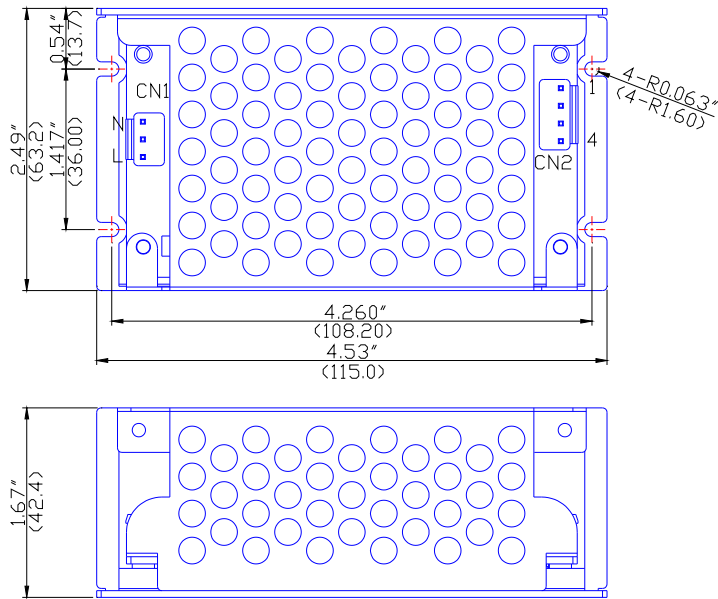
UP1501H-()()

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UP1501H-XXE



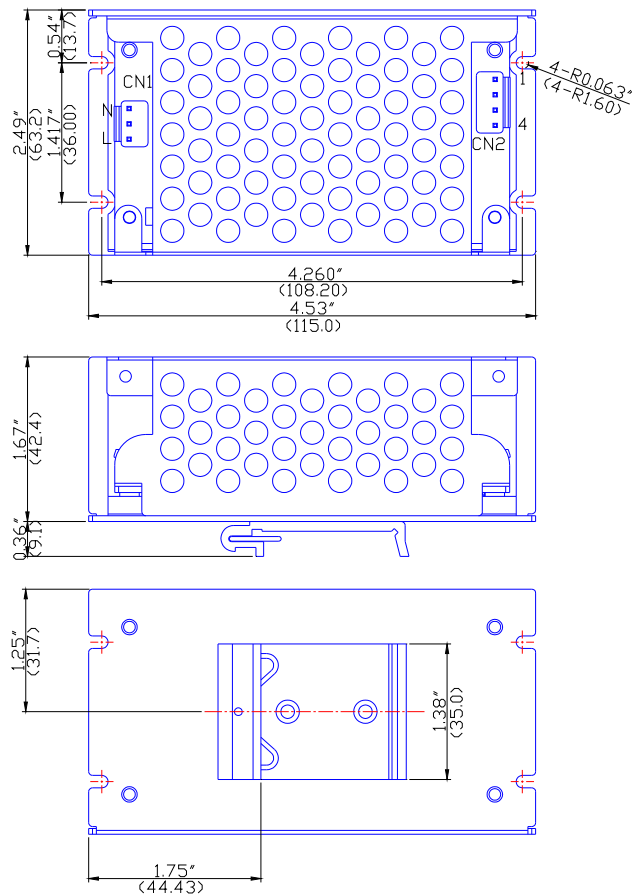
CN1 input connector JST B 3P-VH with second pin removed or equivalent	
Pin	Input voltage
L&N	90-264 VAC

CN2 output connector JST B 4P-VH 4 Pin or equivalent	
Model	
Pin	UP1501H-XXE
1	Common
2	Common
3	Vo
4	Vo

NOTES:

1. All dimensions in inches (mm).
2. Tolerance .XX=±0.05", .XXX=±0.02"

UP1501H-XXED



CN1 input connector JST B 3P-VH with second pin removed or equivalent	
Pin	Input voltage
L&N	90-264 VAC

CN2 output connector JST B 4P-VH 4 Pin or equivalent	
Model	
Pin	UP1501H-XXED
1	Common
2	Common
3	Vo
4	Vo

NOTES:

1. All dimensions in inches (mm).
2. Tolerance .XX=±0.05", .XXX=±0.02"



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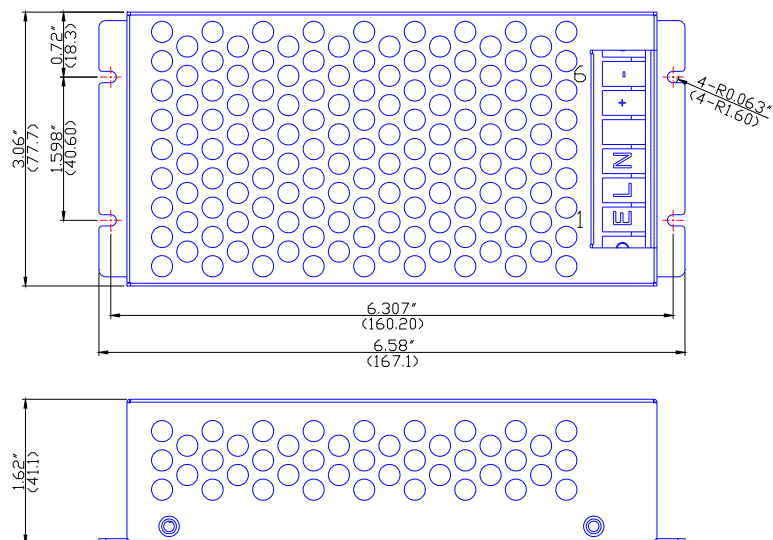
UP1501H-()()

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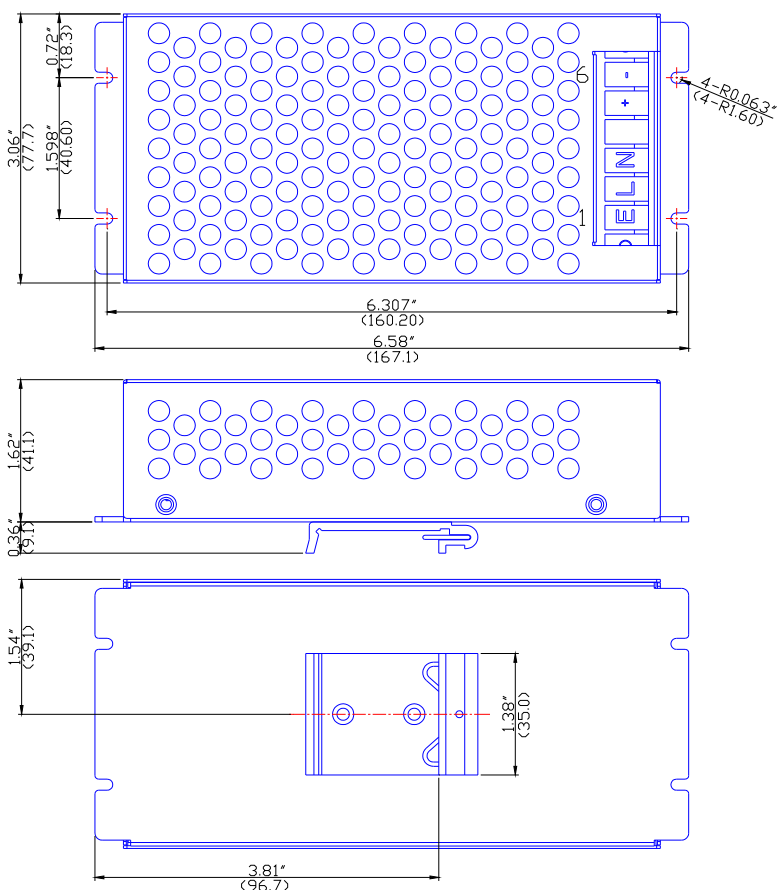
UP1501H-XXT



CN1 connector HOWDER HD-831-06PH-S-D30		
Model		
Pin		UP1501H-XXT
1	Input	FG
2		L
3		N
4	Output	NC
5		Vo
6		Common

- NOTES:
1. All dimensions in inches (mm).
 2. Tolerance .XX=±0.05", .XXX=±0.02"

UP1501H-XXTD



CN1 connector HOWDER HD-831-06PH-S-D30		
Model		
Pin		UP1501H-XXTD
1	Input	FG
2		L
3		N
4	Output	NC
5		Vo
6		Common

- NOTES:
1. All dimensions in inches (mm).
 2. Tolerance .XX=±0.05", .XXX=±0.02"



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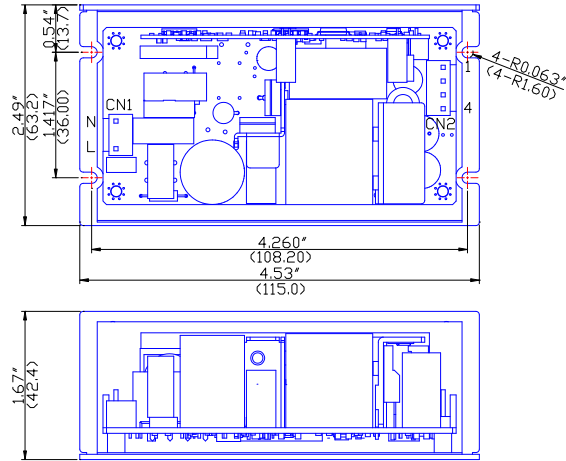
UP1501H-()()

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UP1501H-XXL



CN1 input connector JST B 3P-VH with second pin removed or equivalent	
Pin	Input voltage
L&N	90-264 VAC

CN2 output connector JST B 4P-VH 4 Pin or equivalent	
Model	
Pin	UP1501H-XXE
1	Common
2	Common
3	Vo
4	Vo

- NOTES:
1. All dimensions in inches (mm).
 2. Tolerance .XX=±0.05", .XXX=±0.02"

150WATTA

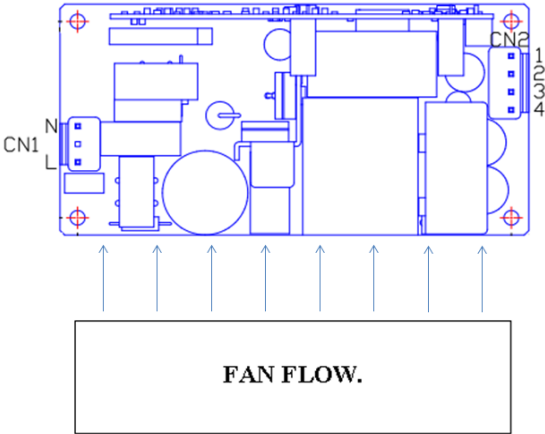
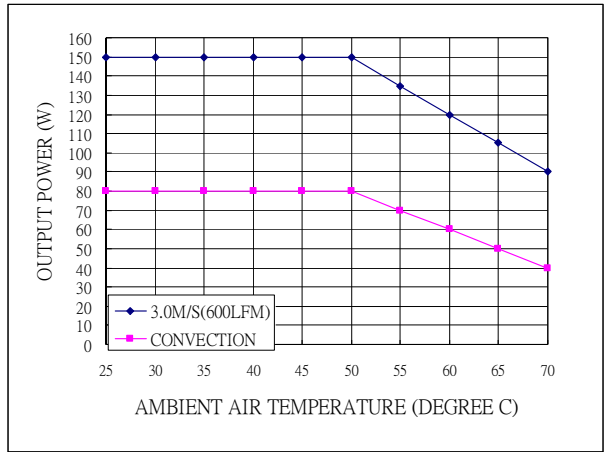
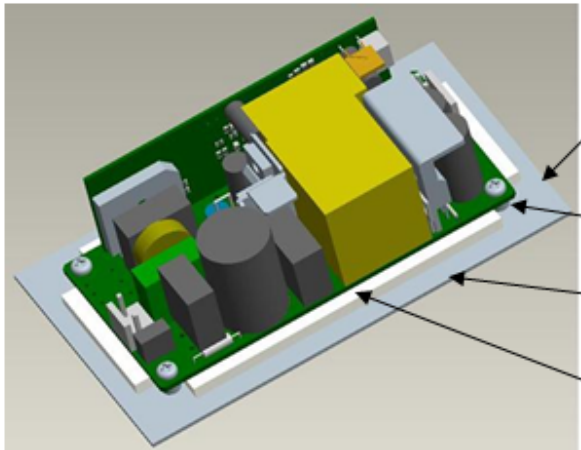


Figure 1: Output power vs Temperature with Forced Air Cooling with Airflow Direction from T1 to control card
Vin=90Vac

Thermal Considerations
Conduction Cooling Image (and Preferred Interface Materials)



- Aluminum Baseplate:⌄
Thickness 2.5 to 3mm⌄
Maximum operating temperature +85°C (measurement point: center on the back side of baseplate)⌄
⌄
⌄
Preferred mounting on standoffs: 3.5mm⌄
⌄
Isolation sheet or Isolation tape (Preferred Kapton tape)⌄
Preferred materials: thickness 50 to 130um, 94V-0⌄
⌄
Thermal Sheet or Thermal Gel:⌄
Preferred Materials:⌄
Type: PMP-P-300US-7 (thickness 3mm)⌄