Embedded Power for Business-Critical Continuity

## AIH Series 250 Watts

Total Power:

Input Voltage: # of Outputs: 250 Watts (12V @ 20.8A) 300V Single





Rev. 05.23.07 AIH Series 1 of 2

## Special Features

- 250W Continuous power at 100°C baseplate temperatur
- High efficiency up to 88%
- Low output ripple and noise
- Positive and Negative
   enable function
- Excellent transient response
- Safety isolated low voltage control and monitoring
- High reliability
- Wide input voltage range
- Paralleable with accurate current sharing
- Adjustable output voltage
- Regulation to zero load
- Temperature monitor output
- EU Directive 2002/95/EC compliant for RoHS

### Safety

UL	60950 Recognize
cUL	60950 Recognize
TUV	EN60950 License
	CE Mark

# **Electrical Specifications**

Input	
Input range	250 - 420 VDC
Input surge	450V / 100ms
Efficiency	88% @ 5.0V (typical)
Output	
Load Regulation	0.2% typical (5V and above); 10mV for below 5V
Line Regulation	0.2% typical (5V and above); 10mV for below 5V
Noise / ripple	100mV typical (below 5V); 2% typical (5V and above)
Output voltage adjust range	+/-20% for 5V and above; +10%/ -50% for below 5V
Transient response	5% max for 3.3V and above 150mV for 1.8V, deviation with 25% to 75% full load 250 $\mu S$ (max) recovery
Current share accuracy	3% typical
Overvoltage protection	130% Vo (3.3 Vo and 5 Vo); 125% Vo (other Vo)
Current limit	120% lo maximum
Control	
Voltage adjust	80 to 120% for 5V and above; +10% / -50% for below 5V
Enable	TTL compatible (positive & negative enable options)
Clock input (external sync)	3.3 to 5.5Vp-p @800 MHz ±5%
Temperature monitor output	10mV/°K (2.73 = 0°C)
Current monitor output	0 to 1mA (1mA = 100% I <sub>o rated</sub> )
Notes	

Nominal values apply with sense pins disconnected and other control pin unconnected.





## **Environmental Specifications**

Operating temperature

Startup temperature

Storage temperature Overtemperature protection MTBF -20°C to +100°C (case temperature)
-40°C to +100°C (case temperature)
-40°C to +100°C
120°C max
1M hours (Demonstrated)

Input

31. Positive 22. Positive

32. Negative 23. Positive

Output

24. Positive

27. Negative 4. C Share

28. Negative 5. SDA

29. Negative 6. SCL

Control Pins

2. Temp Mon

1.+Sense

3. C Mon

7. CLK IN

8. V Adj

9 Enable

10. -Sense

#### Ordering Information

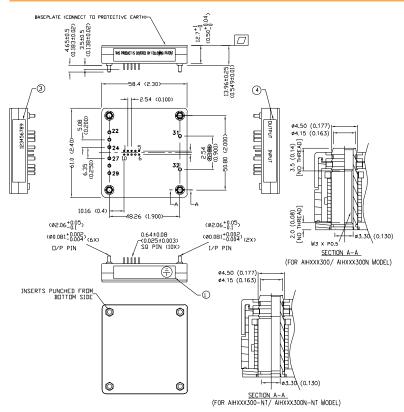
Input Voltage	Output Voltage	Efficiency	Model Number
300V	1.8V @ 50A	80% (Typ)	AIH50Y300
300V	3.3V @ 50A	82% (Typ)	AIH50F300
300V	5.0V @ 40A	88% (Typ)	AIH40A300
300V	12V @ 20.8A	86% (Typ)	AIH20B300
300V	15V @ 16.6A	90% (Typ)	AIH16C300
300V	24V @ 10.4A	90% (Typ)	AIH10H300

1. For Negative enable add suffix "N".

2. Fon Non-thread hole, add suffix "-NT".

3. Fon RoHS 6, add suffix "-L". Default is RoHS 5.

#### Mechanical Drawing



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