Rev. 07.25.05 AIH Series 1 of 2

AIH Series

250 Watts

Total Power: 250 Watts

Input Voltage: 300V # of Outputs: Single

Special Features

- 250W Continuous power at 100°C baseplate temperature
- 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 Recognized cUL 60950 Recognized TUV EN60950 Licensed



Electrical Specifications

Input	
Input range	250 - 420 VDC
Input surge	450V / 100ms
Efficiency	88% @ 5.0V (typical)

Outpu

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 μS (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 $10\text{mV/°K} (2.73 = 0^{\circ}\text{C})$

monitor output

Current monitor output 0 to 1mA (1mA = 100% I_{o rated})

Notes

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





Rev. 07.25.05 AIH Series 2 of 2

Environmental Specifications

Operating temperature -40°C to +100°C (Case Temperature)

Storage temperature -40°C to +85°C Overtemperature protection 120°C max

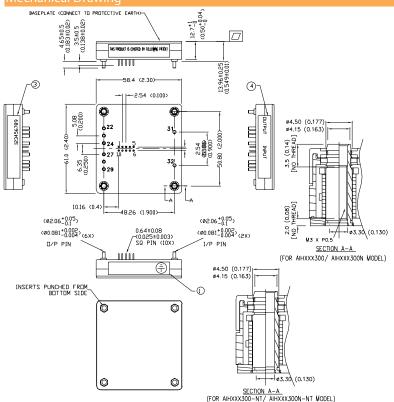
MTBF 1M hours (Demonstrated)

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.

Pin Assignments Input Output Control Pins 31. Positive 22. Positive 1. +Sense 32. Negative 23. Positive 2. Temp Mon 24. Positive 3. C Mon 27. Negative 4. C Share 28. Negative 5. SDA 29. Negative 6. SCL 7. CLK IN 8. V Adj 9. Enable 10. -Sense

Mechanical Drawinc



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