

AIH Series

250 Watts

Total Power: 250 Watts
(12V @ 20.8A)
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
CE CE Mark



Rev. 05.23.07
AIH Series
1 of 2



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 μ 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% Io 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 $\pm$ 5%
Temperature monitor output	10mV/ $^{\circ}$ K (2.73 = 0 $^{\circ}$ C)
Current monitor output	0 to 1mA (1mA = 100% Io rated)

Notes

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



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

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

- | 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 |

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