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

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 above150mV 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% 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 ±5%
Temperature monitor output	10mV/°K (2.73 = 0°C)
Current monitor output	0 to 1mA (1mA = 100% $I_{o\ rated}$)

Notes

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

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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

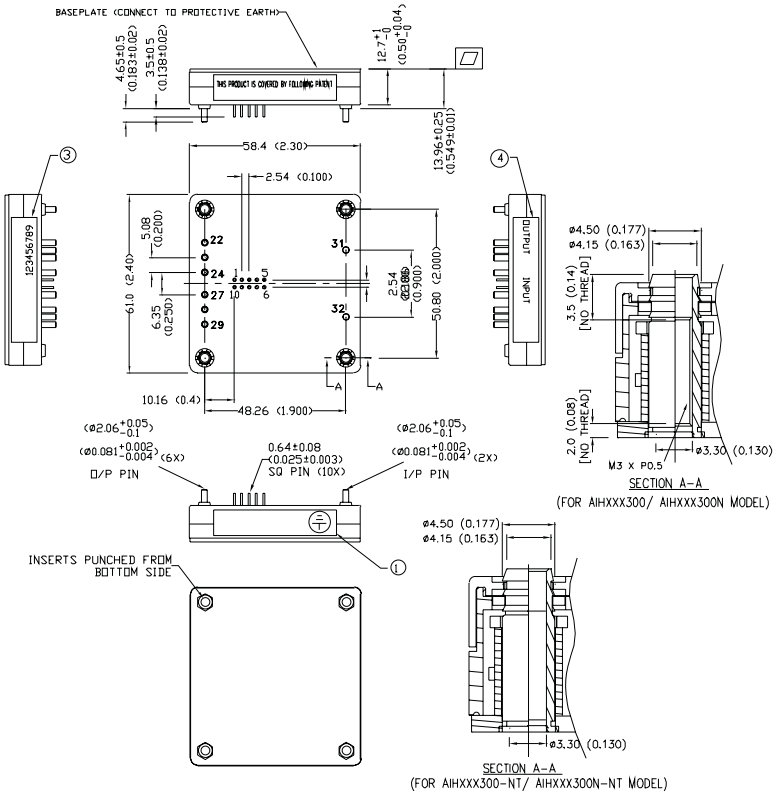
Input Voltage	Output Voltage	Efficiency	Model Number
300V	1.8V @ 50A	80% (Typ)	AIH50Y300
300V	3.3V @ 50A	82% (Typ)	AIH50F300
300V	5.0V @ 40A	88% (Typ)	AIH40A300
300V	12V @ 20.8A	86% (Typ)	AIH20B300
300V	15V @ 16.6A	90% (Typ)	AIH16C300
300V	24V @ 10.4A	90% (Typ)	AIH10H300

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 Drawing



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