

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% V_o (3.3 V_o and 5 V_o); 125% V_o (other V_o) |
| Current limit | 120% I_o 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% I_o rated) |

Notes

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



Environmental Specifications

| | |
|----------------------------|------------------------------------|
| 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) |

Ordering Information

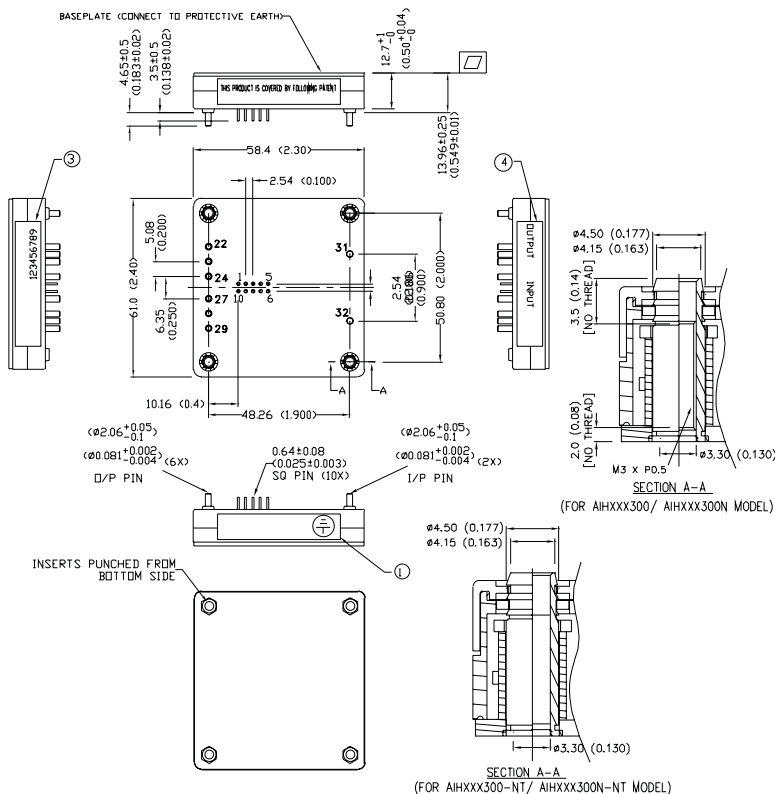
| Input Voltage | Output Voltage | Efficiency | Model Number |
|---------------|----------------|------------|--------------|
| 300V | 1.8V @ 50A | 80% (Typ) | AIH50Y300 |
| 300V | 3.3V @ 50A | 82% (Typ) | AIH50F300 |
| 300V | 5.0V @ 40A | 88% (Typ) | AIH40A300 |
| 300V | 12V @ 20.8A | 86% (Typ) | AIH20B300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

1. For Negative enable add suffix "N".
2. For Non-thread hole, add suffix "-NT".
3. For 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 |

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