### Rev. 05.23.07 AIH Series 1 of 2

# **AIH Series**

### 250 Watts

Total Power: 250

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

# **Electrical Specifications**

Input	
Input range	250 - 420 VDC
Input surge	450V / 100ms

### Efficiency 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

88% @ 5.0V (typical)

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

monitor output

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.





Rev. 05.23.07 **AIH Series** 2 of 2

# **Environmental Specifications**

Operating temperature -20°C to +100°C (case temperature) -40°C to +100°C (case temperature) Startup temperature

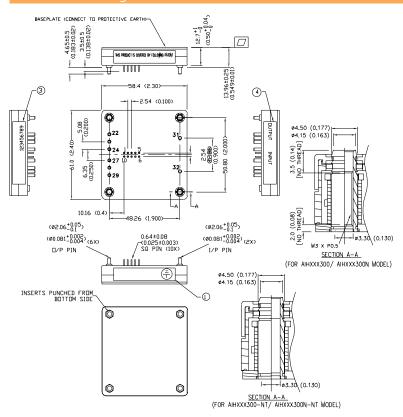
-40°C to +100°C Storage temperature Overtemperature protection 120°C max

**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			



### **Americas**

5810 Van Allen Way Carlsbad, CA 92008

Telephone: +1 760 930 4600 Facsimile: +1 760 930 0698

### Europe (UK)

Waterfront Business Park Merry Hill, Dudley West Midlands, DY5 1LX United Kingdom

Telephone: +44 (0) 1384 842 211 Facsimile: +44 (0) 1384 843 355

### Asia (HK)

16th - 17th Floors, Lu Plaza 2 Wing Yip Street, Kwun Tong Kowloon, Hong Kong Telephone: +852 2176 3333

Facsimile: +852 2176 3888

### For global contact, visit:

## www.astecpower.com www.artesyn.com technicalsupport@astec.com technicalsupport@artesyn.com

While every precaution has been taken to ensure accuracy and completeness in this literature, Emerson Network Power assumes no responsibility, and dis-

all liability for damages resulting from use of this information or for any errors or omissions.

### **Emerson Network Power.**

The global leader in enabling business-critical continuity.

AC Power

Connectivity

DC Power

**Embedded Power** 

**Inbound Power** 

Integrated Cabinet Solutions

Outside Plant

**Precision Cooling** 

Site Monitoring and Services

## EmersonNetworkPower.com

Emerson Network Power and the Emerson Network Power logo are trademarks and service marks of Emerson Electric Co. ©2007 Emerson Electric Co.