

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

Americas

5810 Van Allen Way
Carlsbad, CA 92008
USA
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 disclaims 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.

Mechanical Drawing

