

AIH Series

250 Watts

Data Sheet

Total Power: 250 Watts
(12 V @ 20.8 A)
Input Voltage: 300 V
of Outputs: Single

SPECIAL FEATURES

- 250 W 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
- Two year warranty

SAFETY

- UL 60950 Recognized
- cUL 60950 Recognized
- TUV EN60950 Licensed
- CE CE Mark



Electrical Specifications

Input	
Input range	250 - 420 VDC
Input surge	450 V / 100 ms
Efficiency*	88% @ 5.0 V (typical)
Output	
Load Regulation	60 W for convection; 80 W with 30 CFM forced air
Line Regulation	-5, +10% minimum
Noise / ripple	20 ms @ 60 W load, 115 VAC nominal line
Output voltage adjust range	Short circuit protection on all outputs Case overload protected @ 110 - 145% above peak rating
Transient response	5 V output; 5.7 - 6.7 VDC. Other outputs 10% to 25% above nominal output
Current share accuracy	Compensates for 0.5 V lead drop min. Will operate without remote sense connected Reverse connection protected
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 5 V and above; +10% / -50% for below 5 V
Enable	TTL compatible (positive & negative enable options)
Clock input (external sync)	3.3 to 5.5 Vp-p @ 800 MHz ±5%
Temperature monitor output	10 mV/°K (2.73 = 0 °C)
Current monitor output	0 to 1 mA (1 mA = 100% Io rated)

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

*For detailed technical information, please refer to the product's Technical Reference Notes found at www.Artesyn.com/power.

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

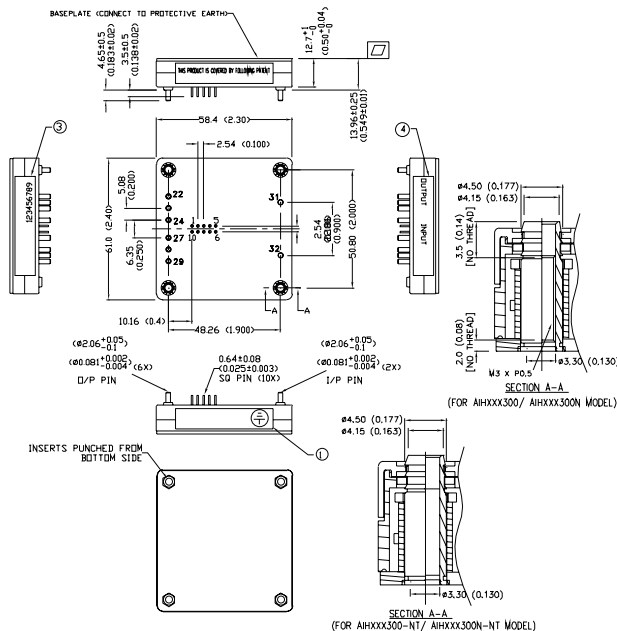
Input Voltage	Output Voltage	Efficiency	Model Number
300 V	1.8 V @ 50 A	80% (Typ)	AIH50Y300
300 V	3.3 V @ 50 A	82% (Typ)	AIH50F300
300 V	5.0 V @ 40 A	88% (Typ)	AIH40A300
300 V	12 V @ 20.8 A	86% (Typ)	AIH20B300
300 V	15 V @ 16.6 A	90% (Typ)	AIH16C300
300 V	24 V @ 10.4 A	90% (Typ)	AIH10H300

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

Mechanical Drawings



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For more information: www.artesyn.com/power
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AIH Series-DS 24Mar2015