AIF Series

600 Watts

Total Power: 600 Watts

(12V@50Amps)

Input Voltage: 300V # of Outputs: Single

Special Features

- 600W Continuous power at 100°C baseplate temperature
- 108W/in³ (6.6W/cm³)
- High efficiency up to 90%
- Low output ripple and noise
- Positive and Negative enable function
- Excellent transient response
- OVP, OCP, V Adj control with ALPTM analog mode linear control, or through I²C bus with digital mode control.
- Paralleable with accurate current sharing
- EU Directive 2002/95/EC

Safety

JL 60950 Recognized CUL 60950 Recognized TUV EN60950 Licensed





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Electrical Specifications

Input	
Input range	250 - 420 VDC
Input surge	450V / 100ms
Efficiency	90%@5.0V (Typical)
Output	
Load Regulation	0.2% typical down to no load
Line Regulation	0.2% typical
Noise / Ripple	100mV typical (below 5V); 2% typical (5V and above)
Remote sense	Up to 0.5V
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 μS (max) recovery
Current Share Accuracy	3% typical
Overvoltage Protection	115% Vo (nominal)
Current Limit	115% lo maximum
Control	

Voltage Adjust 80 to 120% Vo linear programming for 12V, 15V, 24V, 48V 50%

to 110% for 1.8V - 5.0V

Enable TTL compatible (positive & negative enable options)

Current Limit Adjust 20 to 100% lo linear programming or digital mode control

Clock Input (external sync) 3.3 to 5.5Vp-p @ 800KHz $\pm 10\%$ Clock Output (internal clock) 4.5Vp-p typical@ 800KHz $\pm 5\%$ Power Good Identification High (Vo) = power good Temperature Monitor Output 10mV/°K (2.73 = 0°C)

Current Monitor Output 0 to 1mA (1mA = 100% I_{o rated})

Over Voltage Protection 110 to 150% Vo linear programming by voltage or resistor,

Adjust or digital mode control

Notes

Nominal values apply with sense pins connected and other control pin unconnected. ALP: Astec Linear Programming





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Environmental Specifications

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

Storage temperature -40°C to +125°C Overtemperature protection 110°C max

Ordering Information			
Input Voltage	Output Voltage	Efficiency	Model Number
300V	1.8V @ 120A	80% (Typ)	AIF120Y300
300V	3.3V @ 120A	87% (Typ)	AIF120F300
300V	5.0V @ 80A	90% (Typ)	AIF80A300
300V	12V @ 50A	90% (Typ)	AIF50B300
300V	15V @ 40A	90% (Typ)	AIF40C300
300V	24V @ 25A	90% (Typ)	AIF25H300

- 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.

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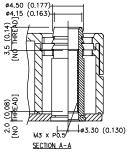
all liability for damages resulting from use of this information or for any errors or omissions.

___BASEPLATE (CONNECT TO PROTECTIVE EARTH)

6.35

15.24 (0.60





Pin Assignments

32. Negative 22. Positive

12.7 (0.50) 13.96 (0.549)

Input (AC) Output (DC) Control Pins

2. Temp Mon

3. C Mon

4 C Share

9. OVP Adj

10, V Adi

11 Enable

12. -Sense

31. Positive 21. Positive 1. +Sense

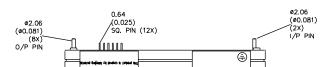
23. Positive

24. Positive

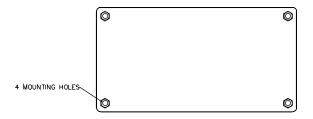
25. Negative 5. Clk Out

28. Negative 8. C Lim Adj

26. Negative 6. Clk In 27. Negative 7. PG/ID



Pin Assignments —106.68 (4,200)- 1.27 (0.050)



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