

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 ALP™ analog mode linear control, or through I²C bus with digital mode control.
- Paralleable with accurate current sharing
- 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
AIF Series
1 of 2

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 μ S (max) recovery
Current Share Accuracy	3% typical
Overvoltage Protection	115% Vo (nominal)
Current Limit	115% Io 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% Io 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% Io rated)
Over Voltage Protection Adjust	110 to 150% Vo linear programming by voltage or resistor, or digital mode control

Notes

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



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

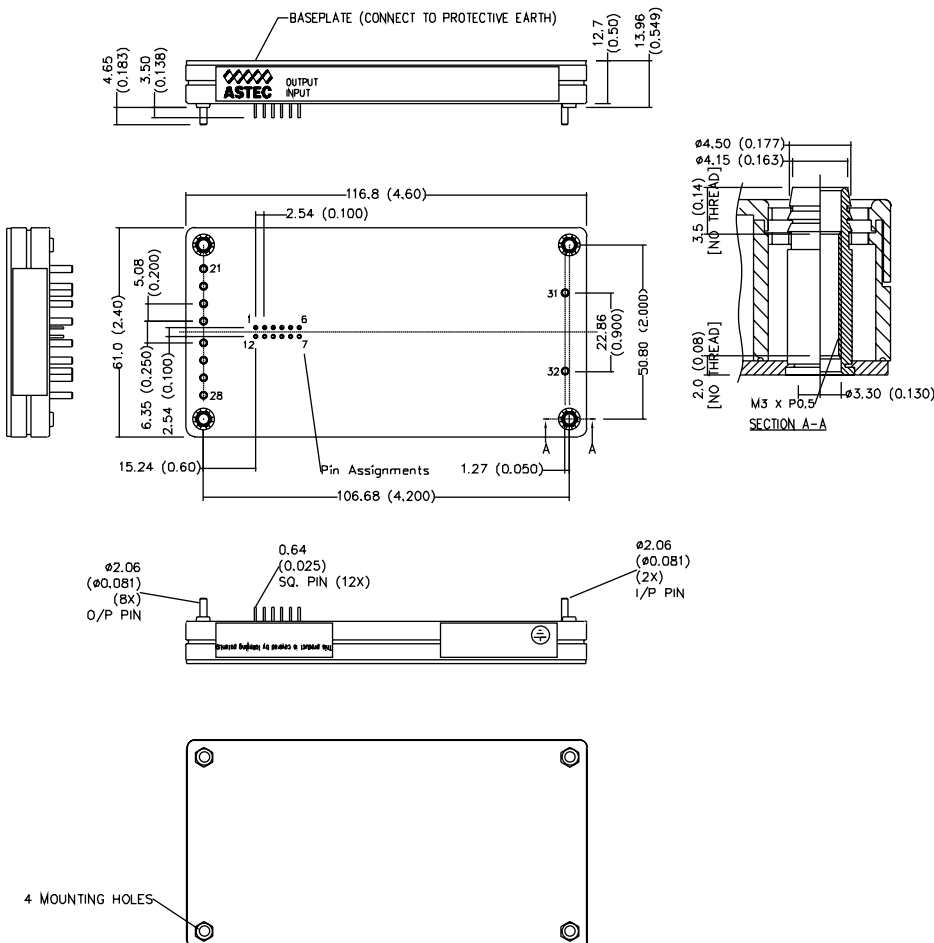
Input Voltage	Output Voltage	Efficiency	Model Number
300V	1.8V @ 120A	80% (Typ)	AIF120Y300
300V	3.3V @ 120A	87% (Typ)	AIF120F300
300V	5.0V @ 80A	90% (Typ)	AIF80A300
300V	12V @ 50A	90% (Typ)	AIF50B300
300V	15V @ 40A	90% (Typ)	AIF40C300
300V	24V @ 25A	90% (Typ)	AIF25H300

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.

Pin Assignments

Input (AC)	Output (DC)	Control Pins
31. Positive	21. Positive	1. +Sense
32. Negative	22. Positive	2. Temp Mon
	23. Positive	3. C Mon
	24. Positive	4. C Share
	25. Negative	5. Clk Out
	26. Negative	6. Clk In
	27. Negative	7. PG/ID
	28. Negative	8. C Lim Adj
		9. OVP Adj
		10. V Adj
		11. Enable
		12. -Sense

Mechanical Drawing



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.
©2005 Emerson Electric Co.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Artesyn Embedded Technologies:](#)

[AIF120F300N-L](#) [AIF120Y300-L](#) [AIF120F300N-NTL](#) [AIF120Y300N-NTL](#) [AIF120Y300N-L](#) [AIF120F300-L](#)