



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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AIF - PFC Series

1600 Watts

Data Sheet

Total Power: 1600 Watts
120 - 370 VDC
(Configurable)
Input Voltage: 85 - 264 VAC
of Outputs: Single



SPECIAL FEATURES

- Unity power factor
- High efficiency - up to 95%
- Universal input voltage and frequency range
- Up to 1600 W output power
- Positive and Negative enable function
- Parallelable with accurate current sharing
- <10% harmonic distortion conforming to IEC1000-3-2 Compliance
- 100°C baseplate operating temperature
- DC Input option
- Power fail warning signal
- Enable output to control DC-DC Converter
- EEPROM data storage via I²C Interface
- External inrush current limited protection
- Power density up to 290 W/in³
- Two year warranty

SAFETY

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

Electrical Specifications

Input	
Input range	85 - 264 Vac / 120 - 370 Vdc (configurable)
Input surge	290 Vac / 1s
Input Frequency	50/60 Hz
Efficiency	95% @ 230 Vac, 1600 W (typical)
Total Harmonic Distortion	Less than 10%
Power Factor	0.99 typical (Po ± 500 W); 0.97 typical (Po ± 1000 W)
Output	
Output Voltage	380V typical (Io = 4.2 A / Vi > 180 Vac); 393 V typical (Io = 0A) Note: Vin peak must always be lower than Vout
Current Share Accuracy	10% max
Overvoltage Protection	430 max
Power Limit for AC input for DC input	Vin = 85 Vac, Pmax = 1000W; Vin = 230 Vac, Pmax = 1600W Case; Vin = 370 Vdc, Pmax = 1600W
Control	
Power Fail Warning	Direct drive output to opto-isolator
Power Fail Warning Adjust	195 to 355 Vdc adjustable
LD Enable	Direct drive output to opto-isolator
PFC Enable	TTL compatible
Voltage Adjust	76% to 100% Vo
DC Input Enable	
Clock Input (external sync)	6 Vp-p typical @ 1 MHz ± 5%
Clock Output (int. clock)	6 Vp-p typical @ 1 MHz ± 5%
Temperature Monitor Output	10 mV/°C
Current Monitor Output	0 to 1 mA (1 mA = 4.2 A output)
I ² C Interface	

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

Environmental Specifications

Operating temperature	-20 °C to +100 °C (baseplate temperature)
Startup temperature	-40 °C to +100 °C (baseplate temperature)
Storage temperature	-40 °C to +120 °C
Overtemperature protection	120 °C max
MTBF	1million hours

Ordering Information

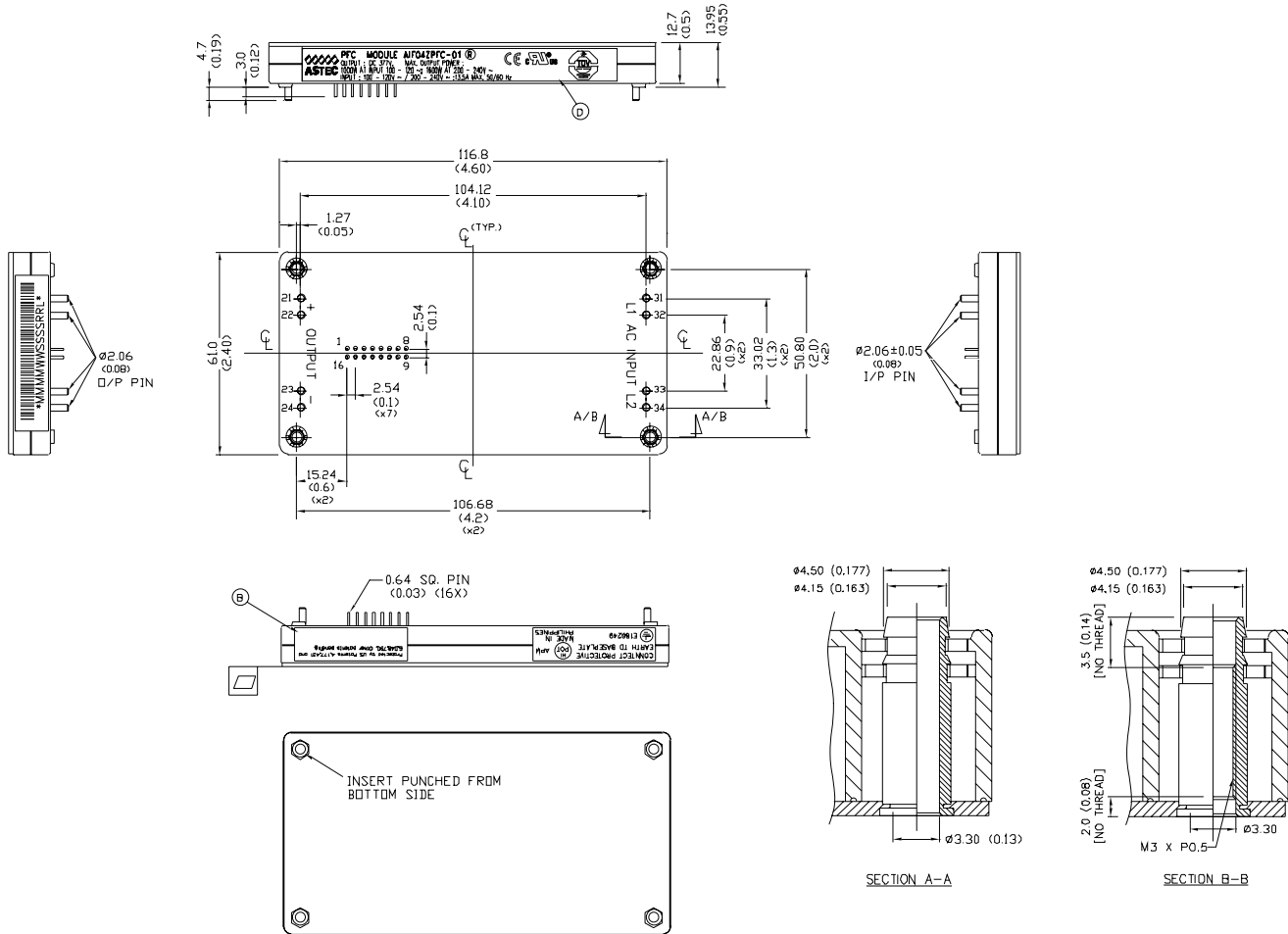
Model Number	Description	Notes
AIF04ZPFC-01L	1600 W Low Profile PC Module	For parallel operation the total input current must be <16Arms.
AIF04ZPFC-02L	1600 W Low Profile PC Module	Designed for parallel operation where the total input current >16Arms, requires external rail rectifiers.
AIF04ZPFC-01NL		Negative Enable
AIF04ZPFC-01NL		Negative Enable

1. Fon Non-thread hole, add suffix “-NT”.

Pin Assignments

Input (AC)	Output	Control Pins
31. L1	21. Positive	1. PV Aux -
32. L1	22. Positive	2. Temp Mon
33. L2	23. Negative	3. C Mon
34. L2	24. Negative	4. C Share
		5. Clk Out
		6. Clk In
		7. PV Aux +
		8. SDA
		9. SCL
		10. DC Enable
		11. V Adj
		12. PFW Adj
		13. S Gnd
		14. PFW
		15. LD Enable
		16. PF Enable

Mechanical Drawings



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