

1600 Watts

Total Power: 1600 Watts
 Input Voltages: 85 - 264VAC
 No. of Outputs: Single

AIF - PFC Series



Special Features

- Unity power factor
- High efficiency - up to 95%
- Universal input voltage and frequency range
- Up to 1600W 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 290W/in³

Environmental

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

Safety

UL 1950 Recognized
 cUL
 TUV EN60950 Licensed
 CE CE Mark

Electrical Specs

Input

Input range	85 - 264VAC / 120 - 370VDC (Configurable)
Input Surge	290VAC / 1s
Input Frequency	50/60 Hz
Efficiency	95% (V _I = 230Vac) 92% (V _I = 115Vac)
Total Harmonic Distortion	Less than 10%
Power Factor	0.99 typical (P _o ≥ 500W); 0.97 typical (P _o ≥ 1000W)

Control

Power Fail Warning	Direct drive output to opto-isolator
Power Fail Warning Adjust	195 to 355Vdc adjustable
LD Enable	Direct drive output to opto-isolator
PFC Enable	TTL compatible
Voltage Adjust	60% to 100% V _o
DC Input Enable	
Clock Input (external sync)	6Vp-p typical @ 1MHz ± 5%
Clock Output (int. clock)	6Vp-p typical @ 1MHz ± 5%
Temperature	
Monitor Output	10mV/°C
Current Monitor Output	0 to 1mA (1mA = 4.2A output)
I ² C Interface	

Output

Output Voltage	380V typical (I _o = 4.2A) 393V typical (I _o = 0A)
Current Share Accuracy	10% max
Overvoltage Protection	430 max
Power Limit for AC input	V _{in} = 85Vac, P _{max} = 1000W V _{in} = 230Vac, P _{max} = 1600W
for DC input	V _{in} = 370Vdc, P _{max} = 1600W

Not

Nominal values apply with sense pins connected and other control pin unconnected.

Specifications subject to change without notice.

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Ordering Information

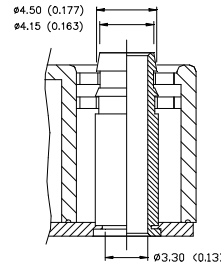
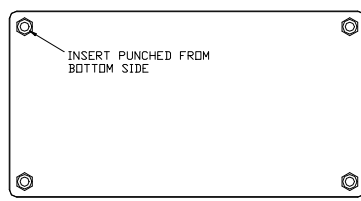
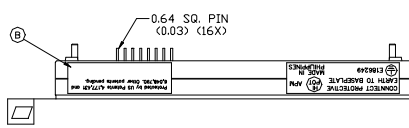
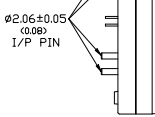
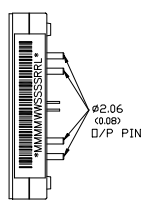
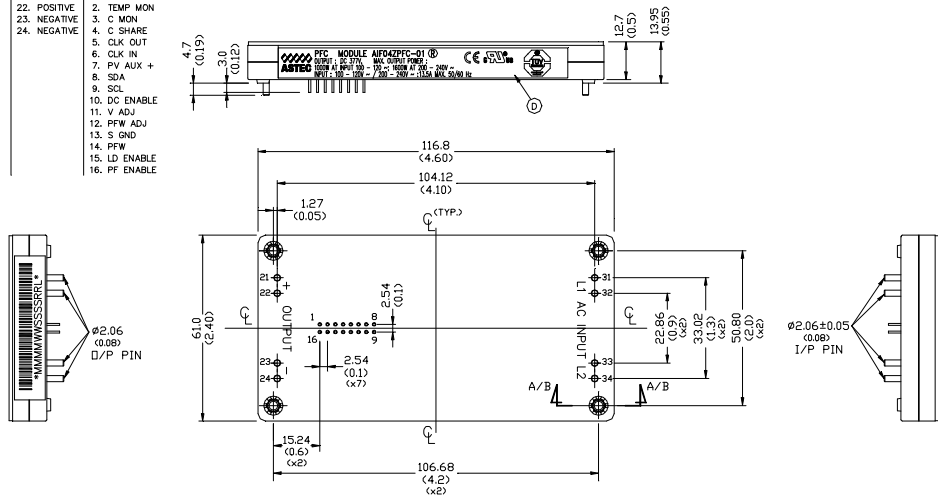
Model Number	Description	Notes
AIF04ZPFC-01	1600W Low Profile PFC Module	For parallel operation the total input current must be < 16Arms. Designed for parallel operation where the total input current >16Arms, requires external rail rectifiers.
AIF04ZPFC-02	1600W Low Profile PFC Module	
AIF04ZPFC-01N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

Note: 1. For Non-thread hole insert, add suffix "NT"

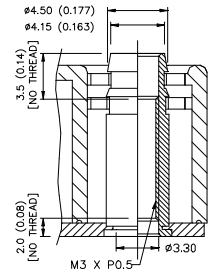
Pin Assignments

Pin Assignments

INPUT(AC)	OUTPUT(DC)	CONTROL PIN
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



SECTION A-A
 AIF04ZPFC-xxxNT



SECTION B-B
 AIF04ZPFC-xxx

AIF-PFC Series

Astec Integrated Standard