

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

