AIF - PFC Series

1600 Watts

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



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 I^2C Interface
- External inrush current limited protection
- Power Density up to 290W/in^3

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% @ 230Vac, 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 =4.2A / Vi > 180 Vac); 393V typical (Io = 0A) Note: Vin rms must always be lower than Vout
Current Share Accuracy	10% max
Overvoltage Protection	430 max
Power Limit for AC input	Vin = 85Vac, Pmax = 1000W; Vin = 230Vac, Pmax = 1600W
for DC input	Vin = 370Vdc, Pmax =1600W
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 compatiable
Voltage Adjust	76% to 100% Vo
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^2C Interface	
Notes	

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

ASTEC

EMERSON
Network Power

Environmental Specifications

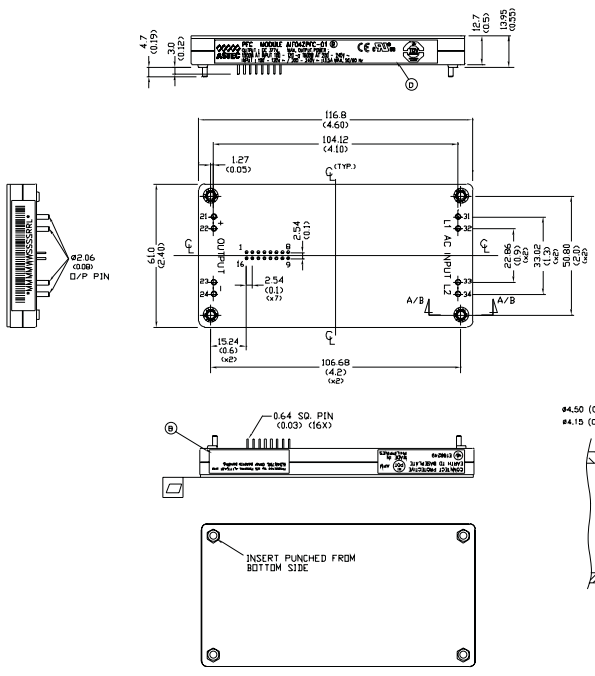
Operating temperature	-20°C to +100°C (baseplate temperature)
Startup temperature	-40°C to +100°C (baseplate temperature)
Storage temperature	-40°C to +120°C
Overtemperature protection	120°C max
MTBF	1million hours

Ordering Information

Model Number	Description	Notes
AIF04ZPFC-01L	1600W Low Profile PC Module	For parallel operation the total input current must be <16Arms.
AIF04ZPFC-02L	1600W 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".

Mechanical Drawing



Pin Assignments

Input (AC)	Output (DC)	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

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.
©2007 Emerson Electric Co.