

ARTESYN AIT00ZPFC-01NL

150 Watts



The AIT00ZPFC series of three-quarter-brick power factor correction modules accept a 100–122 Vac input and present a unity power factor. They accommodate AC supply frequencies of 50 Hz, 60 Hz or 360–800 Hz, and a DC input version is also available. Rated at 150 watts, the modules have a high conversion efficiency of 91% and provide a typical output voltage of 393 Vdc.

SPECIAL FEATURES

- Unity power factor
- High efficiency up to 92%
- Civil / Aviation supply frequency range (50 / 60 / 360 - 800 Hz)
- Up to 150 W output power
- Negative enable function
- RTCA-DO 160 compliant
- IEC1000-3-2 compliance at 50 Hz to 800 Hz input
- 100 °C baseplate operating temperature

- DC Input option
- Enable output to control DC-DC Converter
- Internal active switch bypassing external inrush current components

SAFETY

■ UL cUL 60950 Recognized

■ TUV EN60950 Licensed

DATA SHEET

Total Power:

150 Watts

Input Voltage:

100 - 122 Vac

of Outputs:

Single



AIT00ZPFC-01NL

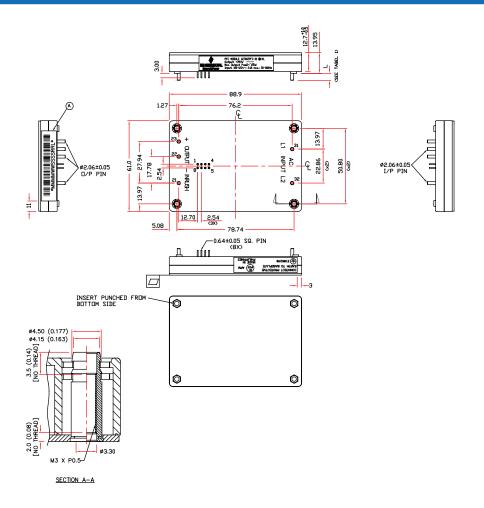
ELECTRICAL SPECIFICATIONS

| Input | | | |
|--------------------------|---|--|--|
| Input range | 100 - 122 Vac | | |
| Input Surge | 170 Vac / 500 ms | | |
| Input Frequency | 50 Hz/60 Hz / 360 - 800 Hz | | |
| Efficiency | 91% @ 115 Vac, 400 Hz 150 W (typical) | | |
| Total harmonic | RTCA-DO 160 Compliant | | |
| Power factor | 0.99 typical (115 Vac; 50 Hz to 360 Hz; 150 W) 0.98 typical (115 Vac; 800 Hz; 150 W) | | |
| Control | | | |
| LD enable | Direct drive output to opto-isolator | | |
| PFC enable | Neg TTL compatible | | |
| Voltage adjust | 78% to 100% Vo | | |
| Output | | | |
| Output voltage | 393 V typical | | |
| Overvoltage Protection | 430 V max | | |
| Power Limit for AC input | Vin = 115 Vac, Pmax = 180 W Vin = 95 Vac, Pmax = 120 W | | |
| Isolation | | | |
| I/O isolation | None | | |
| Input to baseplate | 2700 Vdc | | |
| Output to baseplate | 2700 Vdc | | |
| Leakage current | < 3 mA at 800 Hz input frequency | | |

ENVIRONMENTAL SPECIFICATIONS

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

MECHANICAL DRAWINGS



PIN ASSIGNMENTS

| Input (AC) | Output (DC) | Control Pins |
|------------|--------------|--------------|
| 31. L1 | 21. Inrush | 1. NC |
| 32. L1 | 22. Negative | 2. NC |
| | 23. Positive | 3. LE Adj |
| | | 4. Temp Mon |
| | | 5. LD Enable |
| | | 6. V Adj |
| | | 7.PF Enable |
| | | 8. GND |





ABOUT ADVANCED ENERGY

Advanced Energy (AE) has devoted more than three decades to perfecting power for its global customers. AE designs and manufactures highly engineered, precision power conversion, measurement and control solutions for mission-critical applications and processes.

Our products enable customer innovation in complex applications for a wide range of industries including semiconductor equipment, industrial, manufacturing, telecommunications, data center computing, and medical. With deep applications know-how and responsive service and support across the globe, we build collaborative partnerships to meet rapid technological developments, propel growth for our customers, and innovate the future of power.

PRECISION | POWER | PERFORMANCE

Specifications are subject to change without notice. Not responsible for errors or omissions. ©2020 Advanced Energy Industries, Inc. All rights reserved. Advanced Energy®, AE® and Artesyn™ are U.S. trademarks of Advanced Energy Industries, Inc.



For international contact information, visit advancedenergy.com.

powersales@aei.com (Sales Support) productsupport.ep@aei.com (Technical Support) +1 888 412 7832