

ABC201 SERIES 200W AC/DC



FEATURES

- 160 W convection cooled
- -20 to 50 deg C full load operation
- 3" x 5" x 1.5" (76.2 x 127 x 38.1 mm)
- No minimum load required
- 12 V fan & 5 V standby outputs
- Inhibit, Power Good and Fail signals
- Conducted EMI EN 55022-B, FCC Part 15 Level B
- ITE Safety Agency Approvals
- RoHS Compliant

APPLICATIONS

- Instrumentation
- Lighting
- Industrial Applications
- Applied Computing
- Renewable Energy
- Test and Measurement
- Robotics
- Wireless Communications

TECHNICAL DATA:

Input

PARAMETER	DESCRIPTION/CONDITION	
Input voltage range	Universal Input	90 - 264 Vac 120 - 390 Vdc
Input frequency range		47-63 Hz
Input surge current	230 Vac (cold start)	65 A max.
Safety ground leakage current	230 Vac	300 μ A max
Input current	120 Vac @ 200 W 230 Vac @ 200 W	2.4 A 1.2 A

Output

PARAMETER	DESCRIPTION/CONDITION	
Voltage Adjustment	V1	$\pm 3\%$
Transient Response	Main output 50 to 100% load change, 50 Hz, 50% duty cycle, 0.1A / μ Sec	< 10%, recovery time < 5 mS
Over Voltage Protection	V1	110 to 150% rated max
Over Current Protection	Rated output current	110% Typical
Short Circuit Protection	Automatic recovery	
Set Point Tolerance	$\pm 1\%$	
Rise Time	< 100 mSec	

Ordering Information

PRODUCT FAMILY	VOLTS (VDC)	MAX LOAD CONVECTION (1)	MAX LOAD 300 LFM (1)	MINIMUM LOAD (A)	RIPPLE & NOISE (4)	CONNECTOR	TOTAL REGULATION
ABC201-1005G	5.0	26.0 A	26 A	0	1%	JST	$\pm 2.5\%$
ABC201-1T05G	5.0	26.0 A	35 A	0	1%	Screw Terminal	$\pm 2.5\%$
ABC201-1012G	12	13.33 A	16.67 A	0	1%	JST	$\pm 2.5\%$
ABC201-1T12G	12	13.33A	16.67 A	0	1%	Screw Terminal	$\pm 2.5\%$
ABC201-1015G	15	10.66 A	13.33 A	0	1%	JST	$\pm 2.5\%$
ABC201-1T15G	15	10.66 A	13.33 A	0	1%	Screw Terminal	$\pm 2.5\%$
ABC201-1024G	24	6.66 A	8.33 A	0	1%	JST	$\pm 2.5\%$
ABC201-1T24G	24	6.66 A	8.33 A	0	1%	Screw Terminal	$\pm 2.5\%$
ABC201-1030G	30	5.33A	6.67A	0	1%	JST	$\pm 2.5\%$
ABC201-1T30G	30	5.33A	6.67A	0	1%	Screw Terminal	$\pm 2.5\%$
ABC201-1048G	48	3.33 A	4.17 A	0	1%	JST	$\pm 2.5\%$
ABC201-1T48G	48	3.33 A	4.17 A	0	1%	Screw Terminal	$\pm 2.5\%$
Vfan (all models)	12	0.5 A	0.5 A	0			$\pm 20\%$
V s/b (all models)	5	1.0 A	1.0 A	0			$\pm 5\%$

Notes:

1. Combined power from main output, Vfan and Vs/b should not exceed total power rating.
2. Fan output tolerance is $\pm 20\%$. When V1 full load, Vfan needs 20 mA load to be within regulation specification. Peak current for fan output is 1 A.
3. Ripple is 2% up to 20% load and less than 1% above 20% load. Output noise measurement is made with a 20 MHz bandwidth using a 6" twisted pair, terminated with a 10 uF tantalum capacitor in parallel with a 0.1 uF ceramic capacitor.
4. Specifications are for nominal input voltage, 25°C and max load unless otherwise stated.
5. Air flow over length of supply recommended (either direction) for forced air rating.
6. Class 1 models have Earthing tab J4. Class 2 models (-2 suffix) have no Earthing tab.
7. Specifications may change without notice.
8. Warranty 2 years.

General Specifications

PARAMETER	DESCRIPTION/CONDITION	
Hold Up Time	120 Vac	10 mSec
	230 Vac	10 mSec
MTBF	>200 kHrs	Belcore TR-332
Switching Frequency	PFC converter variable 35 to 250 kHz, 90 kHz typical	Resonant converter variable 35 to 250 kHz, 90 kHz typical
Isolation Voltage	Input to Output: Min 4242 Vdc	
Weight	325 g (0.72 lbs)	

Environmental

PARAMETER	DESCRIPTION/CONDITION	
Operating Temperature	Operating	-20 to 70°C. See derating charts below.
	Storage	-40 to +85°C
Humidity	95%	Non-Condensing
Altitude	Operating 10,000 ft.	Non-operation 40,000 ft.
Conducted emissions:	EN55022, FCC part 15 Level B	
Radiated Emissions	EN55022, FCC part 15 Level B	To be controlled in end system
Static Discharge	EN61000-4	2, 3, 4, 5 Level 3
Harmonic Current	EN61000-3-2, Class D	

Signals

PARAMETER	DESCRIPTION/CONDITION
Power Good Signal	TTL signal goes high after main output is in regulation band. Delay is 0.1 to 0.3 sec.
Power Fail Signal	TTL signal goes low 1 msec advance before output goes out of regulation due to mains failure
Remote ON / OFF	To turn-on power supply short J3 pin 4 to pin 6 (PSU is shipped in this configuration)
Remote Sense	Compensates for 200 mV cable drop

Safety

PARAMETER	DESCRIPTION/CONDITION
EN / UL / CSA	EN60950-1+A12:2011, IEC60950-1 2 nd +A1 2009, CSA-22.2 No 60950-01-07+ A1, UL60950-1-2011

Figure 1 Output Power Vs. Temperature

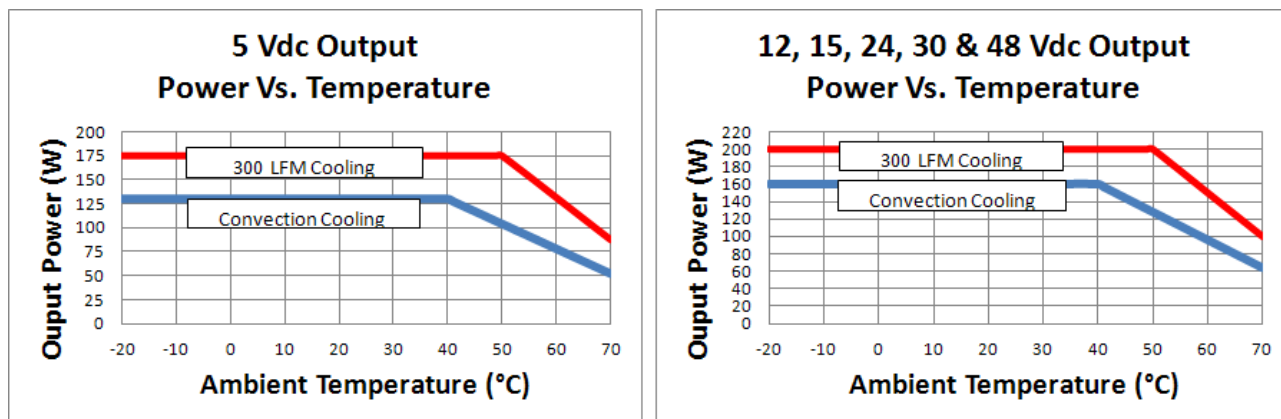
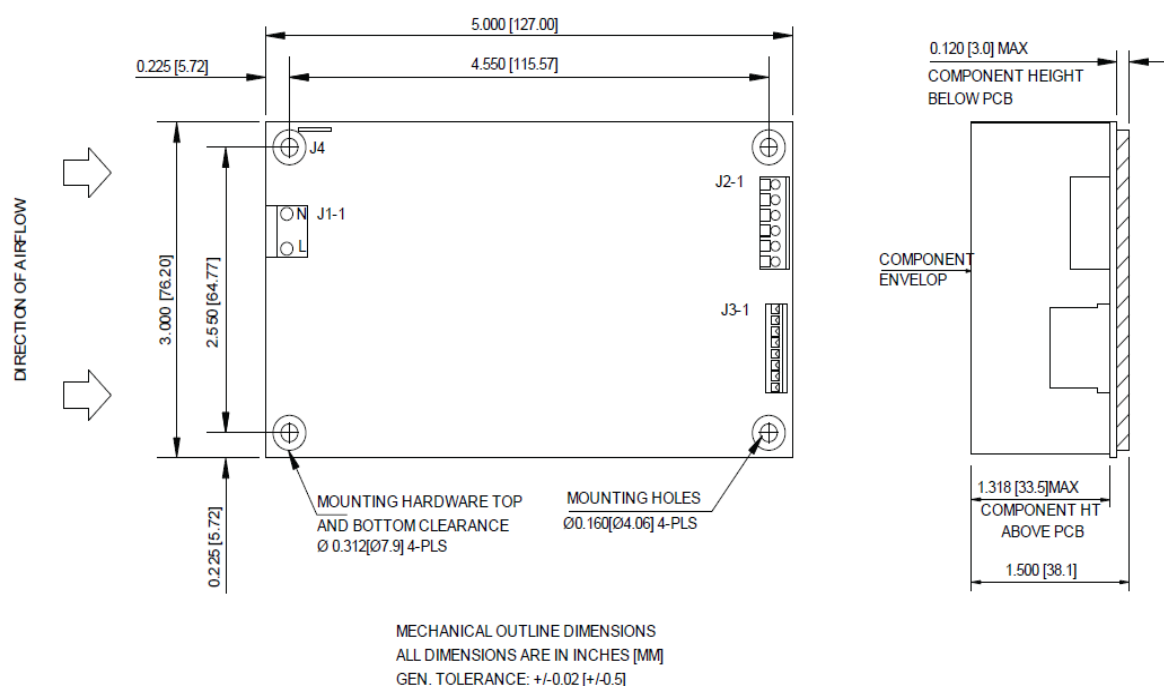


Figure 2 Dimension Drawing (Top and Side View)



Mechanical

INPUT = J1	EARTHING TAB = J4	DC OUTPUT = J2		SIGNALS & AUX POWER= J3	
Pin 1: AC Neutral Pin 2: Removed Pin 3: AC Line	Molex: 19705-4301	Pin 1 = RTN Pin 2 = RTN Pin 3 = RTN	Pin 4 = Vout Pin 5 = Vout Pin 6 = Vout	Pin 1 = + Remote Sense Pin 2 = Vfan (+12 V) Pin 3 = - Remote Sense Pin 4 = Inhibit	Pin 5 = Vs/b (5 Vdc) Pin 6 = Return (Signal) Pin 7 = Power Fail Pin 8 = Power Good
Mating Connector: Molex: 09-50-3031 Pins: 08-50-0106	Mating Connector: Molex: 190030001	Mating Connector: JST VHR-6M, Pins: SVH-41T- P1.1. AWG #20 to #16		Mating Connector: Molex: 22-01-2087, Pins: 08-50-0113	

Copyright © 2010 Power-One Inc. All rights reserved. Words and logos that are identified as trademarks and/or service marks are, unless noted otherwise, the trademarks and service marks of Power-One Inc. in the U.S. and other countries. All other product or service names are the property of their respective holders. Power-One products are protected under numerous U.S. and foreign patents and pending applications, maskwork rights, and copyrights. Power-One reserves the right to make changes to any products and services at any time without notice. Power-One assumes no responsibility or liability arising out of the application or use of any information, product, or service described herein except as expressly agreed to in writing by Power-One Inc.

NUCLEAR AND MEDICAL APPLICATIONS - Power-One products are not designed, intended for use in, or authorized for use as critical components in life support systems, equipment used in hazardous environments, or nuclear control systems without the express written consent of the respective divisional president of Power-One, Inc.

TECHNICAL REVISIONS - The appearance of products, including safety agency certifications pictured on labels, may change depending on the date manufactured. Specifications are subject to change without notice.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Power-One:

[ABC201-1024G](#) [ABC201-1T05G](#) [ABC201-1015G](#) [ABC201-1005G](#) [ABC201-1T15G](#) [ABC201-1048G](#) [ABC201-1012G](#) [ABC201-1030G](#) [ABC201-1T48G](#) [ABC201-1T12G](#) [ABC201-1T30G](#) [ABC201-1T24G](#)