

# 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
- O Industrial Applications
- O Applied Computing

- Renewable Energy
- Test and Measurement
- O Robotics
- O Wireless Communications



## TECHNICAL DATA:

#### Input

PARAMETER	DESCRIPTION/CONDITION		
Input voltage range	Universal leavet	90 - 264 Vac	
	Universal Input	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 μA max	
Input current	120 Vac @ 200 W 230 Vac @ 200 W	2.4 A 1.2 A	

## Output

PARAMETER	DESCRIPTION/CONDITION	DESCRIPTION/CONDITION			
Voltage Adjustment	V1	± 3%			
Transient Response	Main output 50 to 100% load change, 50 Hz, 50% duty cycle, 0.1A / uSec	< 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	± 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	± 2.5%
ABC201-1T05G	5.0	26.0 A	35 A	0	1%	Screw Terminal	± 2.5%
ABC201-1012G	12	13.33 A	16.67 A	0	1%	JST	± 2.5%
ABC201-1T12G	12	13.33A	16.67 A	0	1%	Screw Terminal	± 2.5%
ABC201-1015G	15	10.66 A	13.33 A	0	1%	JST	± 2.5%
ABC201-1T15G	15	10.66 A	13.33 A	0	1%	Screw Terminal	± 2.5%
ABC201-1024G	24	6.66 A	8.33 A	0	1%	JST	± 2.5%
ABC201-1T24G	24	6.66 A	8.33 A	0	1%	Screw Terminal	± 2.5%
ABC201-1030G	30	5.33A	6.67A	0	1%	JST	± 2.5%
ABC201-1T30G	30	5.33A	6.67A	0	1%	Screw Terminal	± 2.5%
ABC201-1048G	48	3.33 A	4.17 A	0	1%	JST	± 2.5%
ABC201-1T48G	48	3.33 A	4.17 A	0	1%	Screw Terminal	± 2.5%
Vfan (all models)	12	0.5 A	0.5 A	0			± 20%
V s/b (all models)	5	1.0 A	1.0 A	0			± 5%

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#### Notes:

- 1. Combined power from main output, Vfan and Vs/b should not exceed total power rating.
- 2. Fan output tolerance is ± 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	DESCRIPTION/CONDITION			
Hold Up Time	120 Vac	10 mSec			
	230 Vac	10 mSec			
MTBF	>200 kHrs	Bellcore 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	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				

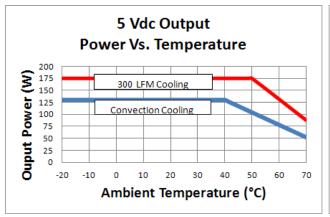
#### Signals

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 <sup>nd</sup> +A1 2009, CSA-22.2 No 60950-01-07+ A1, UL60950-1-2011			

Figure 1 Output Power Vs. Temperature



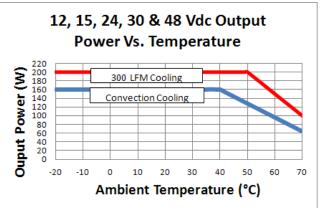
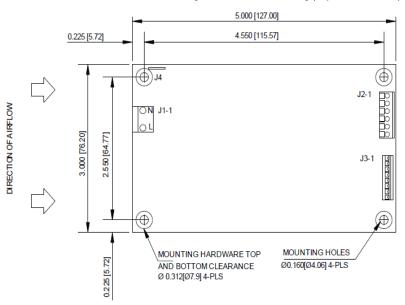
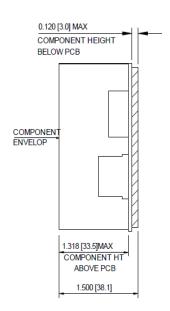


Figure 2 Dimension Drawing (Top and Side View)





MECHANICAL OUTLINE DIMENSIONS ALL DIMENSIONS ARE IN INCHES [MM] GEN. TOLERANCE: +/-0.02 [+/-0.5]

#### 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		3-50-0113	

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**Authorized Distributor** 

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#### Power-One:

<u>ABC201-1024G</u> <u>ABC201-1T05G</u> <u>ABC201-1015G</u> <u>ABC201-1005G</u> <u>ABC201-1T15G</u> <u>ABC201-1048G</u> <u>ABC201-1048G</u> <u>ABC201-1T148G</u> <u>ABC201-1T12G</u> <u>ABC201-1T24G</u>