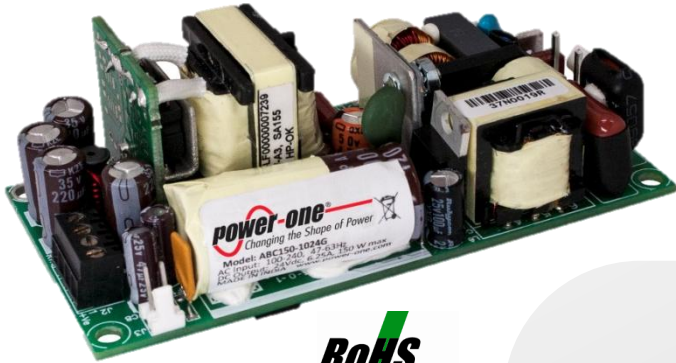


## ABC150 SERIES 150W AC/DC



### FEATURES

- 110 W convection cooled
- -20 to 50 deg C full load operation
- 90-264 VAC input
- 2" x 4" x 1.3" (101.6 x 50.8 x 33.6 mm)
- No minimum load required
- Fan output, 12 Vdc @ 0.5A standard
- Conducted EMI EN 55022-B, FCC Part 15 Level B
- ITE Safety Agency Approvals
- RoHS Compliant

### APPLICATIONS

- Instrumentation
- Lighting
- Industrial Applications
- Test and Measurement
- Renewable Energy
- Wireless Data
- Automation Control
- Applied Computing

## 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 $\mu$ A
Input current	120 Vac @ 150 W 230 Vac @ 150 W	1.7 A 0.85 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 / $\mu$ Sec	< 10%, recovery time < 5 mSec
Over Voltage Protection	V1	110 to 150% rated max
Over Current Protection	Rated output current	110% Typical
Short Circuit Protection	Automatic recovery	
Efficiency	>86%	
Set Point Accuracy	$\pm$ 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
ABC150-1005G	5.0	16.0 A	16 A	0	1%	JST	$\pm$ 2.5%
ABC150-1T05G	5.0	16.0 A	20 A	0	1%	Screw Terminal	$\pm$ 2.5%
ABC150-1012G	12	8.33 A	12.5 A	0	1%	JST	$\pm$ 2.5%
ABC150-1T12G	12	8.33 A	12.5 A	0	1%	Screw Terminal	$\pm$ 2.5%
ABC150-1015G	15	6.67 A	10.0 A	0	1%	JST	$\pm$ 2.5%
ABC150-1T15G	15	6.67 A	10.0 A	0	1%	Screw Terminal	$\pm$ 2.5%
ABC150-1024G	24	4.17 A	6.25 A	0	1%	JST	$\pm$ 2.5%
ABC150-1T24G	24	4.17 A	6.25 A	0	1%	Screw Terminal	$\pm$ 2.5%
ABC150-1048G	48	2.08 A	3.13 A	0	1%	JST	$\pm$ 2.5%
ABC150-1T48G	48	2.08 A	3.13 A	0	1%	Screw Terminal	$\pm$ 2.5%
<b>Vfan (all models)</b>	<b>12</b>	<b>0.5 A (3)</b>	<b>0.5 A (3)</b>	<b>0</b>			<b>20%</b>

**Notes:**

1. Combined power from main output and Vfan should not exceed total power rating.
2. Fan output tolerance is  $\pm 20\%$
3. Peak power for fan output is 1 A.
4. 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.
5. Specifications are for nominal input voltage, 25°C and max load unless otherwise stated.
6. Air flow over length of supply recommended (either direction) for forced air rating.
7. Class 1 models have Earthing tab J4. Class 2 models (-2 suffix) have no Earthing tab.
8. Specifications subject to change without notice.
9. Warranty 2 years.

**General Specifications**

PARAMETER	DESCRIPTION/CONDITION	
Hold Up Time	120 Vac	6 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	Input to Ground 2120 Vdc
Weight	150 g (0.33 lbs)	

**Environmental**

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

**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

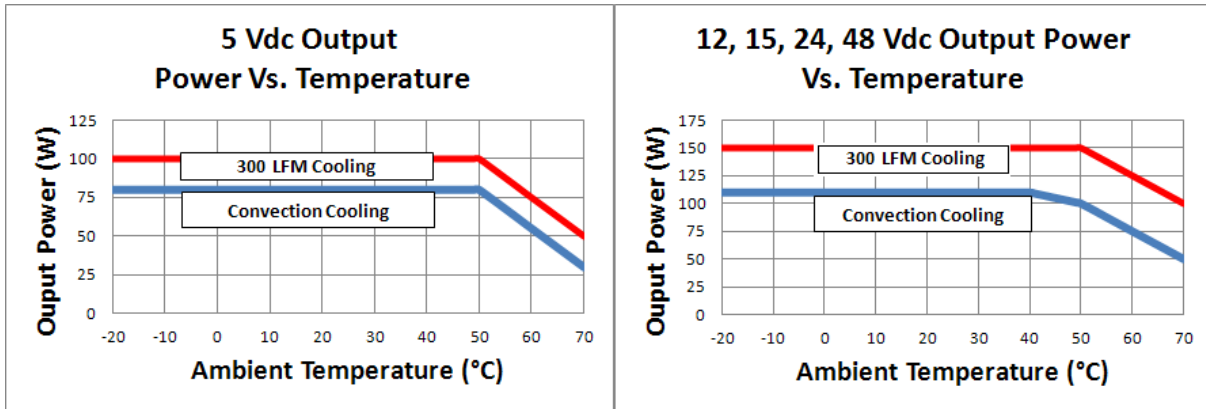
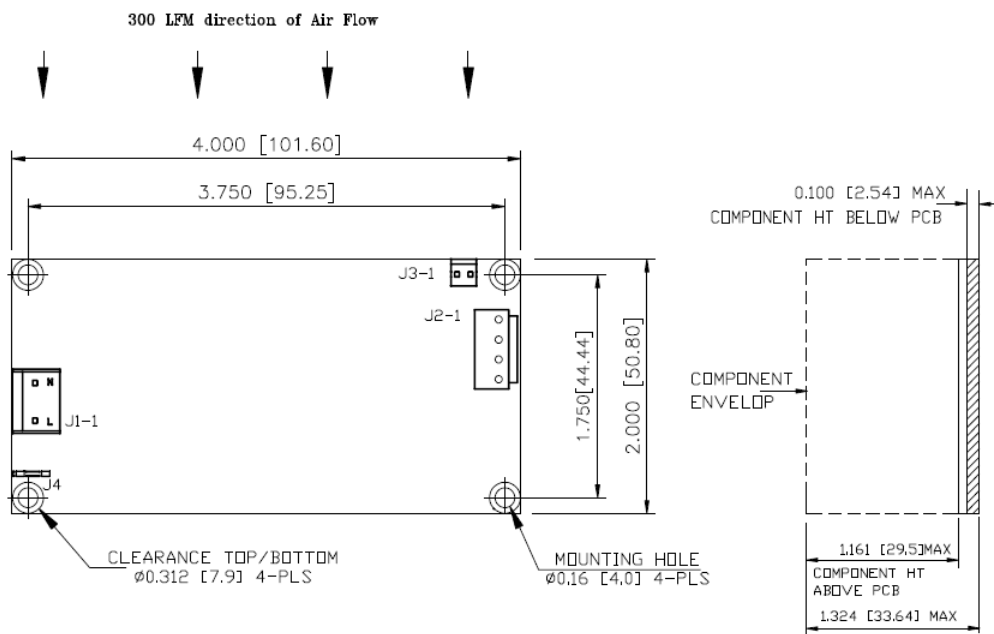


Figure 2 Dimension Drawing (Top and Side View)



MECHANICAL OUTLINE DIMENSIONS  
DIMENSIONS UNIT : INCH [M.M]  
GEN. TOLERANCE : +/-0.020 [0.50]

**Mechanical**

INPUT = J1	EARTHING TAB = J4	DC OUTPUT = J2		FAN= J3
Pin 1: AC Line Pin 2: AC Neutral	Molex: 19705-4301	Pin 1 = V1 Pin 2 = V1	Pin 3 = RTN Pin 4 = RTN	Pin 1 = +12 V @ 0.5 A Pin 2 = Fan return (isolated from DC output)
Mating Connector: Molex: 09-50-3031 Pins: 08-50-0106	Mating Connector: Molex: 190030001	Mating Connector: JST VHR-4M, Pins: SVH-41T-P1.1 AWG #20 to #16		Mating Connector: Tyco: 640440-2

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