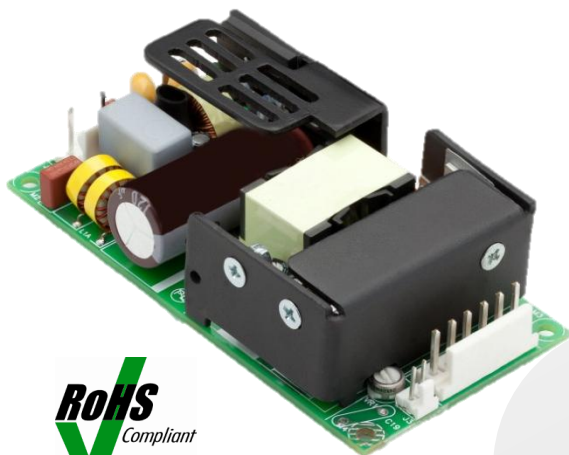


## ABC60 SERIES 60W AC/DC



### FEATURES

- 60 W convection cooled
- -20 to 50 deg C full load operation
- 90-264 VAC input
- 2" x 4 " x 1.2" (101.6 x 50.8 x 30.48 mm)
- No minimum load required - single output models
- Conducted EMI EN 55022-B, FCC Part 15 Level B
- ITE Safety Agency Approvals
- RoHS Compliant
- No load power < 0.3 W

### APPLICATIONS

- Instrumentation
- Lighting
- Industrial Applications
- Applied Computing
- Renewable Energy
- Automation Controls
- Wireless Data
- Communication Systems
- Test and Measurement
- Robotics

## TECHNICAL DATA:

### Input

PARAMETER	DESCRIPTION/CONDITION	
Input voltage range.	Universal Input	90 - 264 Vac
Input frequency range	47 to 400 Hz. (3)	
Input surge current	264 Vac (cold start)	40 A max.
Safety ground leakage current	120 Vac < 500 uA	230 Vac < 1000 uA
Input current	120 Vac @ 60 W	1.5 A
	230 Vac @ 60 W	0.75 A

### Output

PARAMETER	DESCRIPTION/CONDITION	
Voltage Adjustment	V1	± 10%
Transient Response	Main output 50 to 100% load change, 50 Hz, 50% duty cycle, 0.1 A / u Sec, 50/60 Hz	< 10%, recovery time < 5 mSec
Over Voltage Protection	130% Typical	
Short Circuit Protection	130% Typical	
Remote Sense	V1	0.5 Vdc compensation
Efficiency	>85%	
Set Point Tolerance	V1 = ±3%, V2 & V3 = ±5%	
Rise Time	100 mSec	

### Ordering Information

PRODUCT FAMILY	VOLTS (VDC)	OUTPUT CURRENT MAX (A)	MINIMUM LOAD (A) (4)	RIPPLE & NOISE	TOTAL REGULATION	OVP THRESHOLD
ABC60-1005G	5.2	10.0	0	1.25%	± 0.8%	130% Typical
ABC60-1012G	12	5.4	0	1%	± 0.8%	130% Typical
ABC60-1015G	15	4.33	0	1%	± 0.8%	130% Typical
ABC60-1024G	24	2.7	0	1%	± 0.8%	130% Typical
ABC60-1048G	48	1.35	0	1%	± 0.8%	130% Typical
ABC60-3000G	5.2	8.0	0.5	1.25%	± 0.8%	130% Typical
	12.5	3.0	0.1	1%	± 5.3%	
	-12.5	0.5	0.0	1%	± 5.3%	
ABC60-3001G	5.2	8.0	0.5	1.25%	± 0.8%	130% Typical
	23.8	1.5	0.1	1%	± 5.3%	
	-12.5	0.5	0.0	1%	± 5.3%	
ABC60-3002G	5.2	8.0	0.5	1.25%	± 0.8%	130% Typical
	14.6	2.5	0.1	1%	± 5.3%	
	-16.2	0.5	0.0	1%	± 5.3%	
ABC60-3003G	3.3	8.0	1.0	1.5%	± 0.8%	130% Typical
	5.2	3.0	0.1	1%	± 5.3%	
	-12.8	0.5	0.0	1%	± 5.3%	

**Notes:**

1. Maximum outputs for each output. Max power rating should not be exceeded.
2. 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.
3. Safety Approved: 47 to 63 Hz.
4. Minimum load specified to meet cross regulation.
5. Specifications are for nominal input voltage, 25°C and max load unless otherwise stated.
6. Class 1 models have Earthing tab J4. Class 2 models (-2 suffix) have no Earthing tab.
7. Unit will turn on at -40°C and will operate but ripple and noise will be  $\pm 3\%$  for up to 5 minutes.
8. Specifications subject to change without notice.
9. Warranty 2 years.

**General Specifications**

PARAMETER	DESCRIPTION/CONDITION	
Hold Up Time	6 mSec	120 Vac input
MTBF	>100 khrs	MIL-HDBK-217F
Switching Frequency	67 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
Relative 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
Electromagnetic Susceptibility	EN61000-4	2, 3, 4, 5 Level 3
Harmonic Current	EN61000-3-2, Class A	

**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

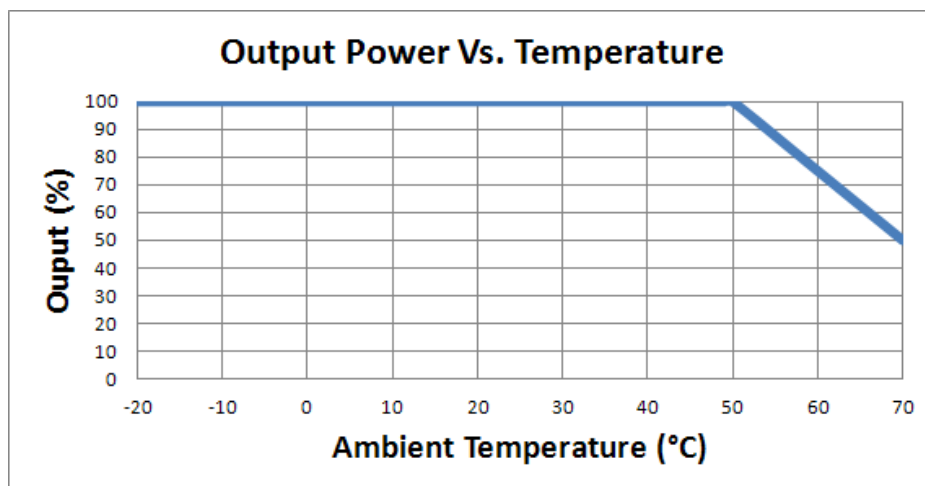
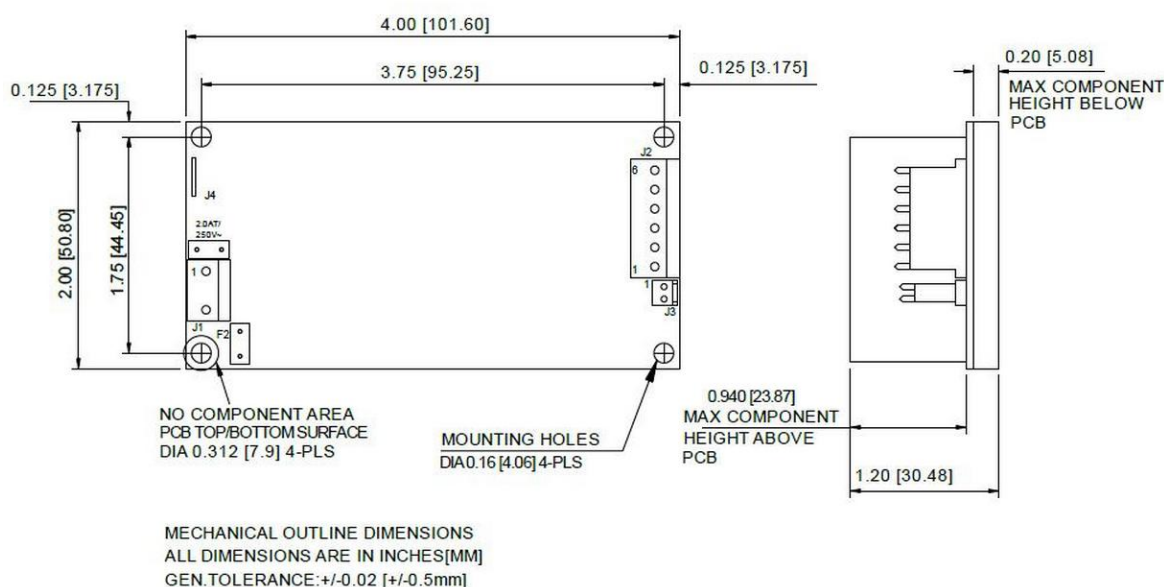


Figure 2 Dimension Drawing (Top and Side View)



## Mechanical

INPUT = J1	EARTHING TAB = J4	DC OUTPUT = J2		REMOTE SENSE = J3
Pin 1: AC Neutral Pin 2: Removed Pin 3: AC Line	Molex: 19705-4301	Pin 1 = V1 Pin 2 = V1 Pin 3 = RTN	Pin 4 = RTN Pin 5 = V3 Pin 6 = V2	Pin 1 = +V1 Sense Pin 2 = -V1 Sense
Mating Connector: Molex: 09-50-3031 Pins: 08-50-0106	Mating Connector: Molex: 190030001	Mating Connector: Tyco: 647402-6; Pins: 3-647409-1		Mating Connector: Molex: 22-01-2021

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.