



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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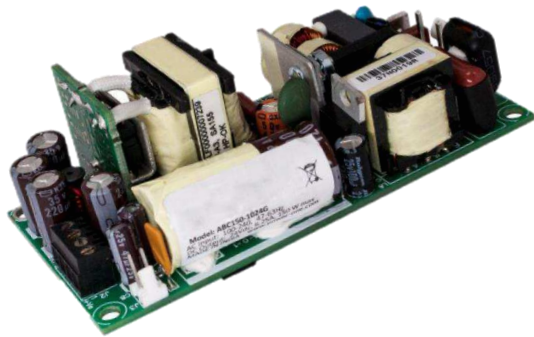
ABC150 Series

Open Frame Power Supplies

The ABC150 Series of open-frame power supplies, with its wide universal 90 - 264 VAC input range and high power density, is available at 150 W of output power and a variety of single output voltages.

The high efficiency and high power density of the ABC family ensures minimal power loss in end-use equipment, thereby facilitating higher reliability, easier thermal management and meets regulatory approvals for environmentally-friendly end products.

These power supplies are ideal for telecom, datacom, industrial equipment and other applications.



Key Features & Benefits

- 4 x 2 x 1.3 Inch Form Factor
- 150 W with Forced-Air Cooling
- 12 V @ 0.5 A fan voltage auxiliary output
- High Efficiency > 86%
- Low conducted and radiated noise
- Light weight
- IEC Protection Class Options:
 - Class I: Earthing Tab J4 (no suffix)
 - Class II: No Earthing Tab (-2 suffix)
- Cover Kit Accessory Available
- RoHS Compliant

Applications

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



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1. MODEL SELECTION

MODEL ¹	CONNECTOR	OUTPUT VOLTAGE	MAX LOAD CONVECTION ²	MAX LOAD 300 LFM ^{2,3,4}	MINIMUM LOAD	RIPPLE & NOISE ⁵
ABC150-1005G	JST	5 VDC	16.0 A	16.0 A	0.0 A	1%
ABC150-1T05G	Screw Terminal	5 VDC	16.0 A	20.0 A	0.0 A	1%
ABC150-1012G	JST	12 VDC	8.33 A	12.5 A	0.0 A	1%
ABC150-1T12G	Screw Terminal	12 VDC	8.33 A	12.5 A	0.0 A	1%
ABC150-1015G	JST	15 VDC	6.67 A	10.0 A	0.0 A	1%
ABC150-1T15G	Screw Terminal	15 VDC	6.67 A	10.0 A	0.0 A	1%
ABC150-1024G	JST	24 VDC	4.17 A	6.25 A	0.0 A	1%
ABC150-1T24G	Screw Terminal	24 VDC	4.17 A	6.25 A	0.0 A	1%
ABC150-1048G	JST	48 VDC	2.08 A	3.13 A	0.0 A	1%
ABC150-1T48G	Screw Terminal	48 VDC	2.08 A	3.13 A	0.0 A	1%
COVER-201-XBC ⁶	Metal cover kit accessory					

2. INPUT SPECIFICATIONS

Specifications are for nominal input voltage, 25°C unless otherwise stated.

PARAMETER	DESCRIPTION / CONDITION	SPECIFICATION
Input Voltage	Universal	90-264 VAC / 120-390 VDC
Input Frequency		47 to 63 Hz
Input Current	120 VAC: 230 VAC:	1.7 A max. 0.85 A max.
No Load Power		1.2 W
Inrush Current	120 VAC: 230 VAC:	35 A max. 65 A max.
Leakage Current	120 VAC: 230 VAC:	< 150 µA < 300 µA
Power Factor	120 VAC: 230 VAC:	0.99 0.95
Switching Frequency	PFC converter (variable) Resonant converter (variable)	35 - 250 kHz, 90 kHz typical 35 - 250 kHz, 90 kHz typical

¹ For Class II (without input Earth pin) add suffix -2 (e.g.: ABC150-1012G-2).

² Combined output power from V1, VSTBY and VFAN should not exceed the total output power rating.

³ Fan output voltage tolerance is +/-20%.

⁴ Peak current for fan output is 1 A.

⁵ Ripple is 2% up to 20% load and < 1% above 20% load. Ripple is peak to peak with 20 MHz bandwidth and 10 µF (Tantalum capacitor) in parallel with a 0.1 µF capacitor at rated line voltage and load ranges.

⁶ When used in Cover Kit, de-rate output power to 70 % under all operating conditions.

3. OUTPUT SPECIFICATIONS

PARAMETER	DESCRIPTION / CONDITION	SPECIFICATION
Output Power	Derate output power linearly to 80% from 90 VAC to 80 VAC input Peak Power 170 W for 0.2 s	150 W
Efficiency	120 VAC: 230 VAC:	84% typical 86% typical
Hold Up Time	120 VAC: 230 VAC:	6 ms 10 ms
Line Regulation		+/-0.5%
Load Regulation		+/-2.0%
Transient Response	Main output 50 to 100% load change, 50 Hz, 50% duty cycle, 0.1A / μ s	< 10%, recovery time < 5 ms
Rise Time		< 100 ms
Set Point Accuracy	Main output	\pm 1%
Voltage Adjustment	V1	\pm 3 %
Over Current Protection		110% typical above rating
Over Voltage Protection	V1	110 to 150%
Short Circuit Protection	Short term, Automatic recovery	

4. ENVIRONMENTAL SPECIFICATIONS

PARAMETER	DESCRIPTION / CONDITION	SPECIFICATION
Operating Temperature	Refer to derating curves Start-up is guaranteed	-20 to 70°C -20 to 0°C
Storage Temperature		-40 to 70° C
Cooling	5 V model Other models	Convection: 300 LFM: Convection: 300 LFM: 80 W 100 W 100 W 150 W
Humidity	Non Condensing	95%
Altitude	Operating: Non-Operating:	10,000 ft. 40,000 ft.
Reliability	MTBF according to Telcordia -SR332-Issue 3	2.4 million hours

5. EMC SPECIFICATIONS

PARAMETER	DESCRIPTION / CONDITION	SPECIFICATION
Conducted Emissions	EN55032-B, CISPR22-B, FCC PART15-B	Pass
Radiated Emissions	EN 55032 A; with external core (King core K5B RC 25x12x15-M in input cable)	Pass Level B
Input Current Harmonics	EN 61000-3-2	Class D
Voltage Fluctuation and Flicker	EN 61000-3-3	Pass
ESD Immunity	EN 61000-4-2	Level 3, Criterion A
Radiated Field Immunity	EN 61000-4-3	Level 3, Criterion A
Electrical Fast Transient Immunity	EN 61000-4-4	Level 3, Criterion A
Surge Immunity	EN 61000-4-5	Level 3, Criterion A
Conducted Immunity	EN 61000-4-6	Level 3, Criterion A
Magnetic Field Immunity	EN 61000-4-8	Level 3, Criterion A
Voltage Dips, Interruptions	EN 61000-4-11	Criterion A & B



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6. SAFETY SPECIFICATIONS

PARAMETER	DESCRIPTION / CONDITION	SPECIFICATION
Isolation Voltage	Input to Output:	Min. 4242 VDC
Safety Standards	Approved to the latest edition of the following standards: CSA/UL60950-1, EN60950-1 and IEC60950-1	
Agency Approvals	Nemko, UL, C-UL	
CE mark	Complies with LVD Directive	

7. CONNECTOR & PIN DESCRIPTION

CONNECTOR	PIN	DESCRIPTION / CONDITION	MANUFACTURER / PN
AC Input Connector	J1	Pin 1 Pin 2	AC Line AC Neutral
DC Output Connector	J2	Pin 1,2 Pin 3,4	V1 RTN
Fan	J3	Pin 1 Pin 2	VFAN (12 V / 0.5 A) RTN
Earthing Tab	J4		

8. MECHANICAL SPECIFICATIONS

PARAMETER	DESCRIPTION / CONDITION
Weight	150 g (0.33 lbs.)
Dimensions	101.6 x 50.8 x 33.6 mm (4.0 x 2.0 x 1.3 inch)

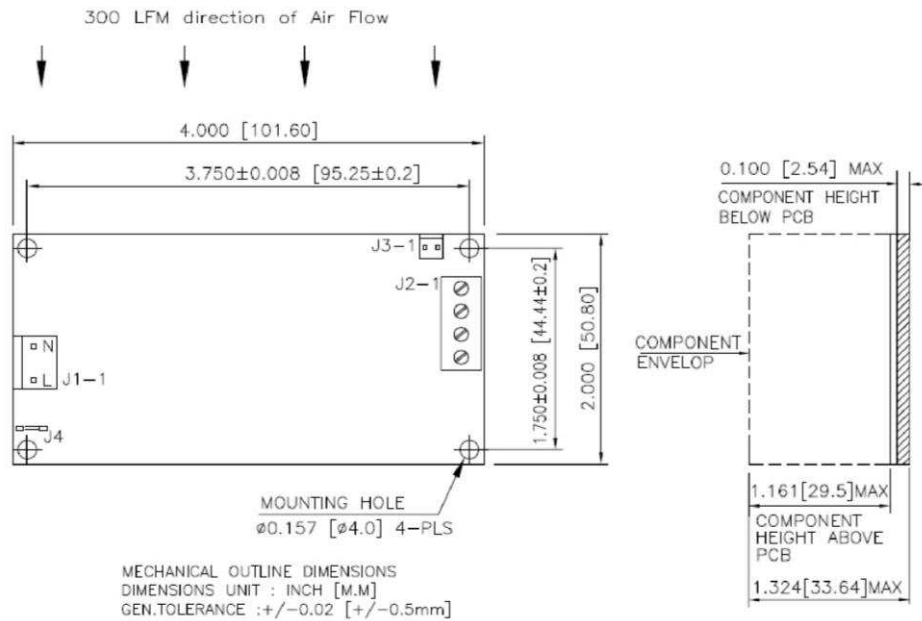
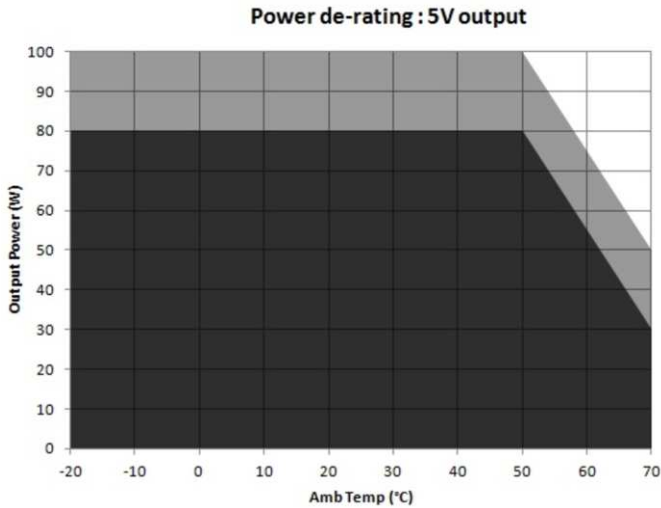


Figure 1 - Mechanical Drawing

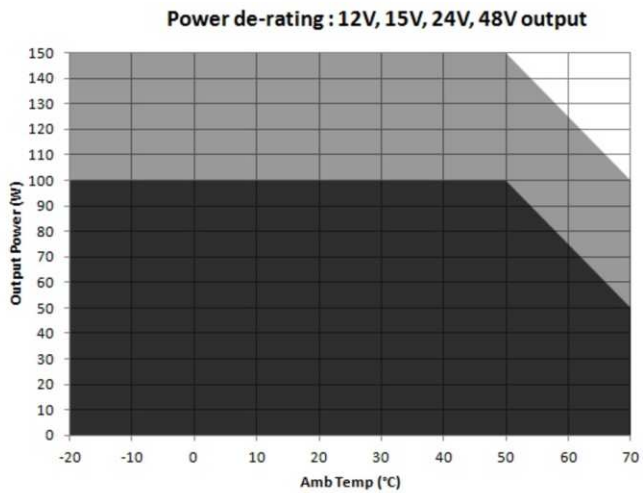
NOTES: In case the PCB is mounted in a metal enclosure, using metal hardware ensure the following:

- 1 Stand off, used to mount PCB has OD of 5.4 mm max.
- 2 Screws, used to fix PCB on stand off, have head dia of 6.0 mm max.
- 3 Washer, if used, to have dia of 6.5 mm max.



Convection load: 80 W up to 50 °C
De-rate above 50 °C @ 3.125% per °C

Forced air cooled load: 100W up to 50°C
De-rate above 50 °C @ 2.5% per °C



Convection load: 100 W up to 50 °C
De-rate above 50 °C @ 2.5% per °C

Forced air cooled load : 150 W up to 50°C
De-rate above 50 °C @ 1.67% per °C

Figure 2. Derating Curves

For more information on these products consult: tech.support@psbel.com

NUCLEAR AND MEDICAL APPLICATIONS - Products are not designed or intended for use as critical components in life support systems, equipment used in hazardous environments, or nuclear control systems.

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.



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