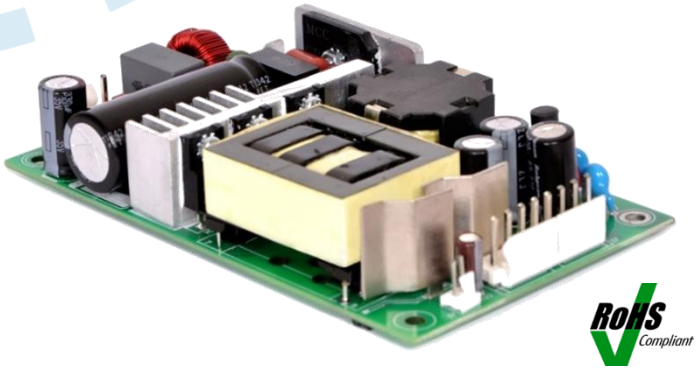
ABC350 Series
Low Profile Open Frame Power Supplies



The ABC350 Series of open frame power supplies feature a wide universal AC input range of 90 – 264 VAC, offering 350 W of output power in a compact 3 x 5 x 1 inch footprint, with a variety of isolated 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

- 3 x 5 x 1 Inches Form Factor
- 350 W with Forced Air Cooling & 200 W with Convection Cooling
- Efficiencies up to 94%
- -40 to 70 °C Operating Temperature
- 12 V / 0.5 A Fan Output, Thermal Shut-Down Feature
- 2.56 Million Hours, Telcordia - SR332-Issue 3 MTBF
- Standby Power < 0.5 W
- Approved to EN60950-1 2nd Edition
- RoHS Compliant
- CE Marked

Applications

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

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ABC350 Series

Model Selection

MODEL NUMBER	DESCRIPTION	VOLTAGE	MAX. LOAD (CONVECTION)	MAX. LOAD (375 LFM)	MIN. LOAD	RIPPLE & NOISE[1]
ABC350-1T12L ABC350-1012L	Screw Terminal Molex Connector	12 V	15 A	25 A 18.75 A	0.0 A	1%
ABC350-1T15L ABC350-1015L	Screw Terminal Molex Connector	15 V	12 A	21.67 A 18 A	0.0 A	1%
ABC350-1T24L ABC350-1024L	Screw Terminal Molex Connector	24 V	8.33 A	14.60 A	0.0 A	1%
ABC350-1T30L ABC350-1030L	Screw Terminal Molex Connector	30 V	6.67 A	11.67 A	0.0 A	1%
ABC350-1T48L ABC350-1048L	Screw Terminal Molex Connector	48 V	4.17 A	7.30 A	0.0 A	1%
ABC350-1T58L ABC350-1058L	Screw Terminal Molex Connector	58 V	3.45 A	6.04 A	0.0 A	1%
COVER-350-XBC	metal cover kit accessory					

NOTES:

1. 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.
2. Combined output power of main output, fan supply shall not exceed max. power rating.
3. Fan supply output voltage tolerance including set point accuracy, line and load regulation is +/-10% and ripple and noise is less than 10%.
4. Thermal shutdown feature: The power supply goes in hiccup mode when the temperature of PCB exceeds 110 °C (+/-10 °C).
5. Output ripple can be more than 10% of the output voltage.

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ABC350 Series

TECHNICAL PARAMETERS

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

Input Specifications

PARAMETER	DESCRIPTION / CONDITION	SPECIFICATION
Input Voltage	Universal (Derate from 100% at 100 VAC to 90% at 90 VAC)	90-264 VAC / 390 VDC
Input Frequency		47 - 63 Hz
Input Current	115 VAC: 230 VAC:	3.6 A max. 1.8 A max.
No Load Power	Typical	>0.5 W
Inrush Current	115 VAC: 230 VAC: 264 VAC:	25 A 45 A 75 A
Leakage Current	Typical	300 uA
Power Factor	Full Load	>0.95
Switching Frequency	PFC: PWM:	70 - 130 kHz 50 - 80 kHz

Output Specifications

PARAMETER	DESCRIPTION / CONDITION	SPECIFICATION
Output Power	With 375 LFM: Convection:	350 W 200 W
Efficiency	48 V, 58 V: 24 V, 30 V: 12 V, 15 V:	94% 93% 92%
Hold-up Time	Full Load: Convection Load:	8 ms typical 14 ms typical
Line Regulation		+/-0.5%
Load Regulation		+/-1%
Transient Response	50-100% step load change, at 0.1A/uS slew rate, 50% duty cycle, 50 Hz = 5% ,	recovery time < 5 ms
Voltage Adjustment		+/-3%
Rise Time	Typical	55 ms
Set Point Tolerance		+/-1%
Over Current Protection	Hiccup mode / Auto Recovery	>110%
Over Voltage Protection	Hiccup mode / Auto Recovery	110 to 140%
Short Circuit Protection	Hiccup mode / Auto Recovery	

Environmental Specifications

PARAMETER	DESCRIPTION / CONDITION	SPECIFICATION
Operating Temperature	Startup guaranteed, with spec deviation, see Fig. 1	-40 to +70°C -40 to 0°C
Storage Temperature		-40 to 85° C
Cooling	With 375 LFM forced air cooling at 100 to 264 VAC: With natural convection cooling at 100 to 264 VAC:	350 W 200 W
Altitude	Operating: Non-operating:	16,000 ft. 40,000 ft.
Humidity	Non Condensing	5% to 95%
Reliability	MTBF according to Telcordia -SR332-Issue 3	2.56 million hours

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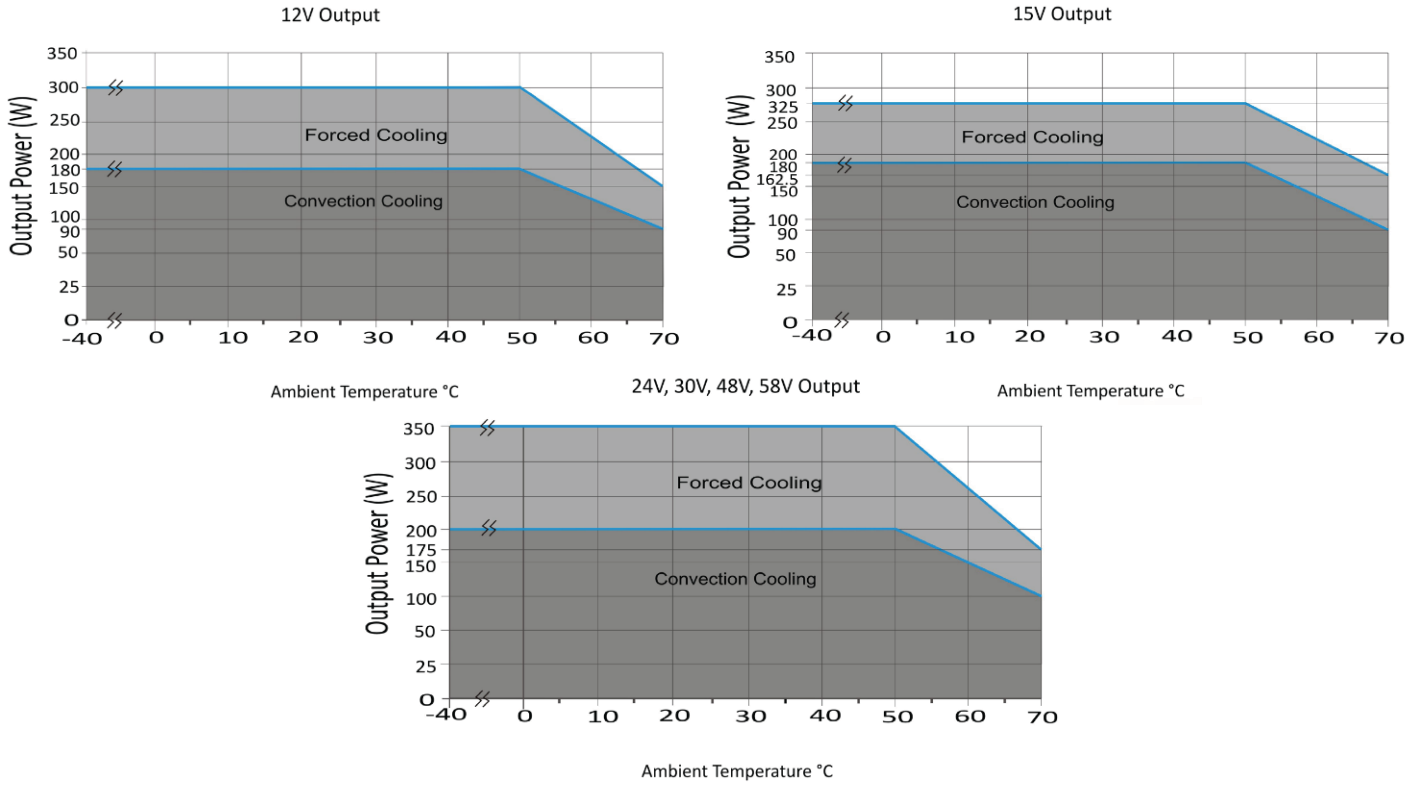
EMC Specifications

PARAMETER	DESCRIPTION / CONDITION	SPECIFICATION
Conducted Emissions	EN55022-B, CISPR22-B, FCC PART15 - B	
Static Discharge	EN61000-4-2:	Level-3
RF Field Susceptibility	EN61000-4-3:	Level-3
Fast Transients/Bursts	EN61000-4-4:	Level-3
Radiated Emissions	Radiated: Radiated with external core ((King core K5B RC 25x12x15-M in input cable)	Level A
Surge Susceptibility	EN61000-4-5:	Level-3
Harmonic Current	EN61000-3-2:	Class D

Safety Specifications

PARAMETER	DESCRIPTION / CONDITION	SPECIFICATION
Isolation Voltage	Input to Output: for ITE application Input to GND:	3000 VAC 1500 VAC
Safety Standards	Approved to the latest edition of the following standards: CSA/UL60950-1, EN60950-1 and IEC60950-1, Class1 SELV	
Agency Approvals	Nemko, UL, C-UL	
CE mark	Complies with LVD Directive	

Figure 1 – Derating Curves



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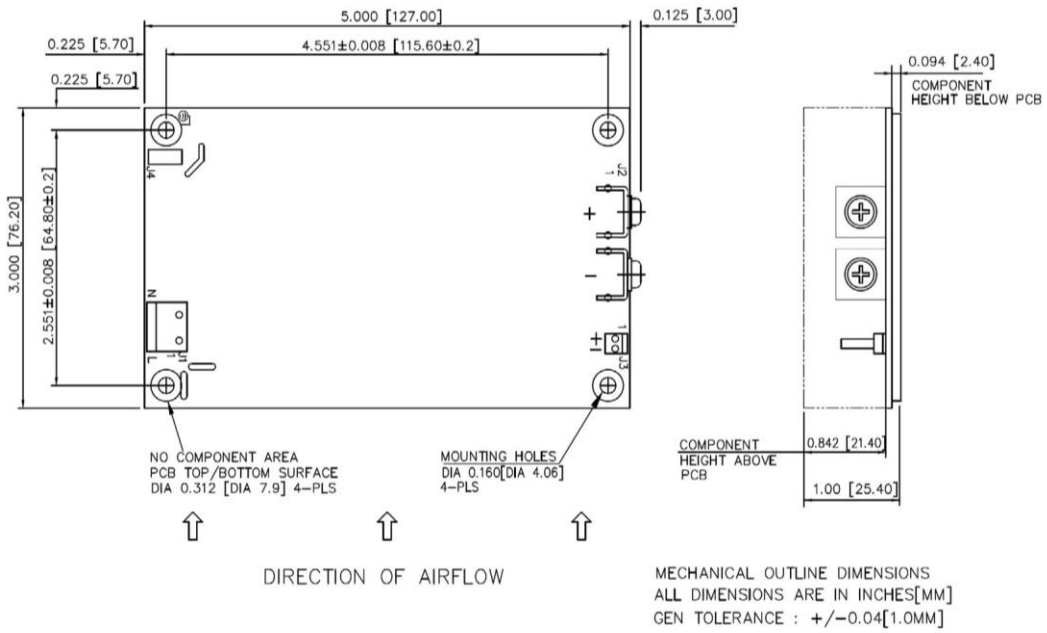
Connector & Pin Description

CONNECTOR	PIN		DESCRIPTION / CONDITION		MANUFACTURER / PN
AC Input Connector	J1		Pin 1 Pin 2 Pin 3	AC Line Not Fitted AC Neutral	Molex: 26-60-4030 Mating: 09-50-3031; Pins: 08-50-0106
DC Output Connector	J2	Screw Terminal (Option 1)	Pin 1 Pin 2	V1 +VE V1 - VE	6-32 inches Screw Pan HD Mating: 16 AWG wire crimped to Ring Tongue Terminal AMP: 8-31886-1
		Molex Connector (Option 2)	Pin 1,2,3,4 Pin 5,6,7,8	V1 +VE V1 - VE	Molex: 26-60-4080 Mating: 09-50-3081; Pins: 08-50-0106
Aux (Fan) Output	J3		Pin 1 Pin 2	FAN +VE FAN -VE	AMP :640456-2 Mating: 640440-2
Earth	J4				Molex: 19705-4301 Mating: 19003-0001

Mechanical Specifications

PARAMETER	DESCRIPTION / CONDITION
Weight	300 g max
Dimensions	76.2 x 127.0 x 25.4 mm (3 x 5 x 1 inch)

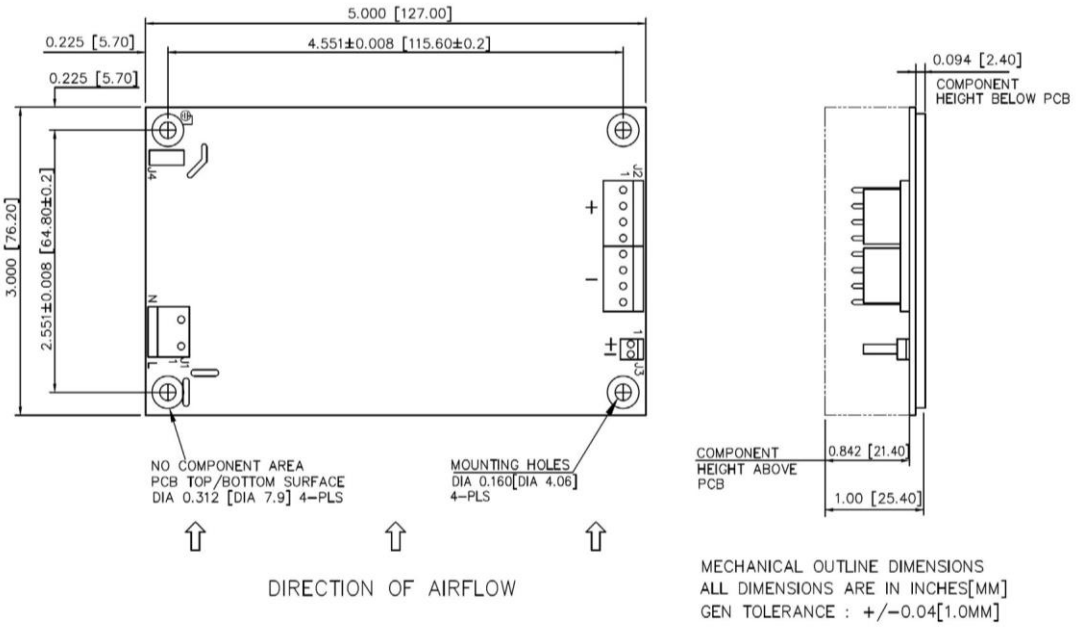
Figure 2 – Mechanical Drawing – Screw Terminal (Option 1)



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Figure 3 – Mechanical Drawing – Molex Connector (Option 2)



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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