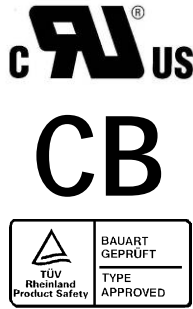


IATX-100U
100 Watts


FEATURES

- 100 Watts Continuous, peak 120W with 10.2 CFM forced air- cooling, 80W convection cooling
- Power factor corrected ATX output
- Power Good/Power Fail Signal
- +5V Stand by & Remote On/Off
- MTBF>130,000 hr. MIL-217F.

1. Description

The IATX-100U is a 100W open frame ATX output power supply with active Power Factor Correction designed for industrial and embedded systems. It utilizes a thermally efficient U channel chassis design.

Output Voltage	Mini. Output Current	Rated Output Current	Max output Current ^(Note 1)	Line Regulation	Load Regulation	Ripple & Noise p-p ^(Note 2)	Initial Setting Accuracy ^(Note 3)
+5V	1A	5.5A	8A	1%	2%	50mV	5.08V to 5.13V
+12V	0.1A	2.5A	5A	1%	4%	120mV	11.4V to 12.6V
-12V	0A	0.5A		1%	5%	120mV	-11.4V to -12.6V
+3.3V	0A	4A	6A	1%	4%	50mV	3.10V to 3.50V
+5Vsb	0A	0.75A		1%	4%	120mV	4.80V to 5.20V

Total Output Power: 100W at 50°C environment temperature ^(Note 4).

Note: 1) The maximum total combined output power on the +3.3V and +5V rails is 50W.

2) Measured by a 20MHz bandwidth limited oscilloscope with each output is connected with a 10 μ F Electrolytic Capacitor and a 0.1 μ F Ceramic Capacitor.

3) The +5V output is set between 5.08V to 5.13V by variable resistor and all output at 60% rated load. All other outputs are factory set.

4) Total maximum load cannot exceed 100W with 10.2 CFM forced air-cooling and 80W convection cooling.

2. Input Specification

Parameter	Conditions/Description	Min.	Nom.	Max.	Units
Input Voltage-AC	Continuous input range.	90	115/230	264	VAC
Input Frequency	AC input.	47		63	Hz
Hold Up Time	Nominal AC Input Voltage (230VAC), rated load.	20			ms
Input Current	Nominal AC Input Voltage (115VAC/230VAC), rated load.			2/1	A
Inrush Current	Nominal AC Input Voltage (115VAC/230VAC), one cycle at 25°C.			30/60	A
Input Protect	Non-user serviceable internally located AC input line fuse.				

3. Output Specification

Parameter	Conditions/Description	Min.	Nom.	Max.	Units
Efficiency	Rated load, 115VAC. Varies with distribution of loads among output.		75		%
Minimum load			See Description		
Ripple & Noise	Rated load, 20MHz bandwidth		See Description		
Output Power	Continuous output power.		See Description		
Line Regulation	Less than $\pm 1\%$ at rated load with $\pm 10\%$ changing in input voltage.		See Description		
Load Regulation	Measured from 60% to 100% rated load and from 60% to 20% rated load (60% $\pm 40\%$ rated load) for each output, and others output current setting at 60%.		See Description	n	
Turn-on Delay	Time required for initial output voltage stabilization	0.3		4	Sec

IATX-100U
100 Watts

4. Interface Signals and Internal Protection

Parameter	Conditions/Description
Power On/Off	The power supply will be turned on when the power On/Off pin is connected to secondary GND.
Power Good Signal	When power is turned on, the power good signal will go high 100ms to 500ms after all output DC voltages are within regulation limits.
Power Fail Signal	The power fail signal will go low at least 1 mS before any of the output voltages fall below the regulation limits.
Over Load Protection	Fully protected against output overload and short circuit. Automatic recovery upon removal of overload condition.
Over Voltage Protection	Built in over voltage protection circuit will shut down the outputs to prevent damaging external circuits. The trigger point is set at 5.8V ~6.8V @ +5V.

5. Safety Approvals, EMI and EMS

Parameter	Conditions/Description	Min.	Nom.	Max.	Units
Safety Approvals	UL, UL 60950-1, 1 st edition				Approved
	CB, IEC 60950-1				
	TUV, EN 60950-1: 2001				
Hi-Pot	Input to output	4242			VDC
Radiation	EN 55022 / CISPR 22 & FCC Part 15	B			Class
Conduction	EN 55022 / CISPR 22 & FCC Part 15	B			
PFC	EN 61000-3-2 & EN 61000-3-3	D			
EMS	IEC 61000-4-2, 8KV air discharge and 6KV contact discharge	3			Level
	IEC 61000-4-3, 3V/M	2			
	IEC 61000-4-4, 2KV line & PE	3			
	IEC 61000-4-5, 2KV	3			
	IEC 61000-4-6, 10V	3			
	IEC 61000-4-8, 10A/M	3			
	IEC 61000-4-11				

6. Environment Specifications

Parameter	Conditions/Description	Min.	Nom.	Max.	Units
Operating Temperature	De-rate linearly above 50°C by 2.5% per °C				°C
	At 100% load:	0		50	
	to a maximum temperature of 70°C			70	
	At 50% load:				
Storage Temperature		-40		+70	°C
Relative Humidity	Non-condensing.	5		95	%RH
Altitude	Operating			10K	Feet
	Non-operating			40K	

7. Mechanical Specifications

Parameter	Conditions/Description		
Dimension	170.5 x 83 x 40 mm, Tolerance +/- 0.4mm.		
Connector	CN1 --- AC input: Molex 5273-03A with draw 1 pin or equivalent.		
	CN2 --- DC output: Molex 5273-12A or equivalent.		
	CN3 --- DC output: Molex 5045-03A.		
Pin Assignment	CN1 Pin 1. N 2. L		
	CN2 Pin 1. 3.3V 2. 3.3V 3. GND	4. GND 5. GND 6. GND	
		7. +5V 8. +5V 9. +5V	10. PG/PF 11. +12V 12. -12V
		3. GND 6. GND 9. +5V	12. -12V
	CN3 Pin 1. +5Vsb 2. GND	3. PS on/off	

IATX-100U

100 Watts

◆ Dimensions

Unit: mm; tolerance +/- 0.4mm

