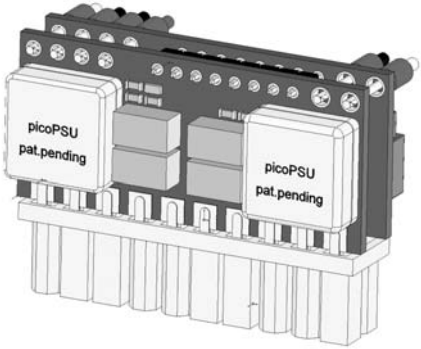


picoPSU-120

12V, 120Watt ATX Power Supply

Quick Installation Guide

Version 1.0b

P/N picoPSU-120

Introduction

The picoPSU-120 is a small yet powerful and fully compliant ATX power supply designed to power a wide variety of motherboard from a single 12V regulated power source.

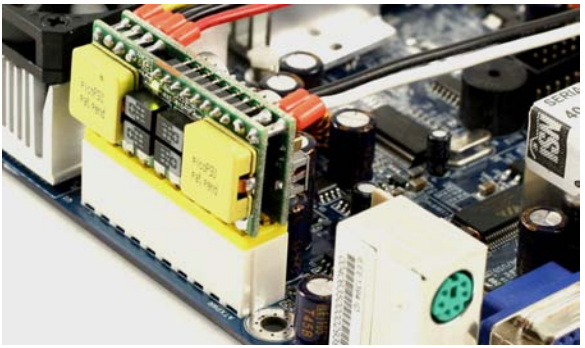
The PICOPSU-120 is the only snap power supply solution for general purpose motherboards. Compatible with an entire range of mini-ITX, UATX or full size ATX motherboards the picoPSU-120 provides cool, silent power for system. The PICOPSU-120 has many advantages over a regular power supply:

-Smallest ATX PSU to date
-100% silent operation
-Low heat dissipation with efficiency over 95%
-Plugs directly into the motherboard's power connector, no cable mess

Quick installation Instructions

The PICOPSU-120 has been specifically designed for the Mini-ITX form factor, thus eliminating the need for ATX power cables. It is also 1U compliant – height will not exceed 1U formfactor.

1) After the picoPSU module was 'snapped in', hook the hard drive power or floppy power to your floppy/hard drives. If more hard drives or floppy connectors are needed, use a HDD/floppy "Y" splitter cable.



2) Connect a 12 VDC power adapter (or any 12V source) to the DC-to-DC connector, center pin / white wire is positive (+).

3) Turn on the PC using the motherboard ON/OFF switch

Typical configuration

The picoPSU-120 has been tested with all mini-ITX board under virtually any disk/floppy/CDROM/PCI configuration. Additionally, the PICOPSU-120 can power P4 boards. Some P4 boards require a P412V connector. Please check http://www.logicsupply.com for a cable harness adapter or solder a P4 cable harness into the 12V, 5V and GND pads on your ATX connector.

Removing the picoPSU-120

In order to remove the picoPSU you must release the power connector latch and then remove the unit. Gently lift the picoPSU out from the ATX connector, by grabbing from the picoPSU PCB, not from components or the wire harness.

Specifications, picoPSU-120, 120Watts DC-DC ATX Power Supply

Power Ratings (Max Load = 140 Watts)

Volts (V)	Max Load (A)	Peak Load (A)	Regulation %
5V	6A	8A	+/- 1.5%
5VSB	1.5A	2A	+/- 1.5%
3.3V	6A	8A	+/- 1.5%
-12V	0.05A	0.1A	+/- 5%
12V	7A	10A	Switched input
At max load, forced air ventilation is required. For fanless operation de-rate the output of the 3.3 and 5V rails by ~20%. Peak load should not exceed 60 seconds.			

Efficiency Ratings, 3.3 and 5V rail

CH1=5V	Efficiency (%)	CH2=3.3V	Efficiency (%)
1A	**86%**	**1A**	**85%**
3A	**94%**	**3A**	**93%**
5A	**96%**	**5A**	**94%**
8A	**93%**	**8A**	**91%**

Input Requirements: 12V regulated, min=2A, max=10A (load dependent). Over-voltage shutdown will occur at ~13-13.5V.

Size: 44.5mm(L) * 20mm(W) * 30mm (H) (1U compliant)

Weight: 57gramms, including cable harness, 27 grams without cable harness.

DC-Jack: Female, panel mount, 2.5*5.5*10 mm.

Connectors
Molex 39-01-2200, two 3.5" drive power connector, 1 floppy. P4-12V 4 pin header adapter sold separately.

Overload protection
Over load protection will be effected when either of the loads (+5V & +3.3V) exceeds > 200% Max Load.

Turn-on Delay
After turning on, at least 20 ms will be needed for the rise of +5VSB output voltage (measured from 10% to 95%) to reach its peak.

Remote ON/OFF control
Logic level is LOW - Output voltage is enabled (PS_ON pin)
Logic level is HIGH - Output voltage is disabled (PS_ON pin)

Operating environment: Temperature: -20 to 85 degree centigrade. Relative Humidity: 10 to 90 percent, non-condensing.

Efficiency, MTBF: 95%. MTBF=100K hours at 55Celsius.

Shipping and storage: Temperature -40 to +90 degree centigrade. Relative humidity 5 to 95 percent, non-condensing

Certifications: EN55024, EN55022 Class B (CE certification), Australia/New Zealand (using CISPR 22, EN55022), Japan (VCCI: using CISPR 22, ANSI C63.4), United States (FCC Part 15, Subpart B, Class B), Canada (ICES-003 using CISPR 22, ANSI C63.4)

Warranty
1 Year Limited Warranty statement. Warranty is void if maintenance or calibration is performed by end-user.