

# **picoPSU-60-WI**

**6-26V, 60Watt / 80Watt peak  
ATX Power Supply**

## **Quick Installation Guide**

Version 1.0b  
P/N picoPSU-60-WI

## Introduction

The picoPSU-60-WI is a small yet powerful and fully compliant ATX power supply designed to power a wide variety of motherboard from a single 6-26V unregulated power source.

The PICOPSU-60-WI is the only “plug-in” wide input range power supply solution for general purpose low power motherboards.

**Compatible with all VIA C3/C7 CPUs M/B and with Pentium-M / Core Duo that use V(core) from the 5V rail.** picoPSU-60-WI provides cool, 100% silent power for your system. The PICOPSU-60-WI has many advantages over a regular power supply:

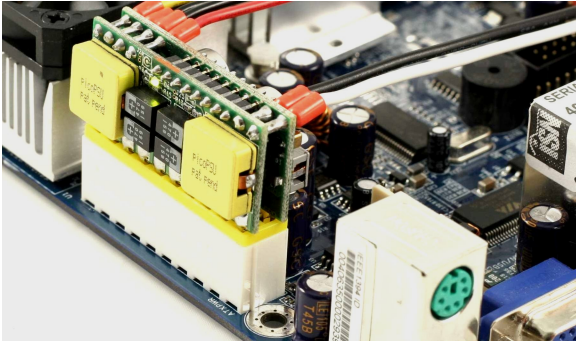
- Smallest ATX PSU to date
- 100% silent operation
- Low heat dissipation with efficiency over 92%
- Plugs directly into the motherboard's power connector, no cable mess

## Quick installation Instructions

The PICOPSU-60-WI 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 the 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.

**NOTE: Do not use the picoPSU-60-WI with 3.5” hard drives or 5.25” CDROMS** as they tend to use a lot of current on the 12V rail. OK to use with 2.5” drives or SlimCDROMs or FlashDisks as they use only current from the 5V rail.



- 2) Connect a 6-26VDC power adapter (or any 6-26VDC source) to the input connector.
- 3) Turn on the PC using the motherboard ON/OFF switch

### **Typical configuration**

The picoPSU-60-WI has been tested with all mini-ITX board under virtually any disk/floppy/CDROM/PCI configuration.

### **Removing the picoPSU-60-WI**

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-60-WI, 60Watts DC-DC ATX Power Supply****Power Ratings (Max Load = 80 Watts)**

| <b>Volts (V)</b> | <b>Max Load (A)</b> | <b>Peak Load (A)</b> | <b>Regulation %</b> |
|------------------|---------------------|----------------------|---------------------|
| 5V               | 6A                  | 10A                  | +/- 1.5%            |
| 5VSB             | 1.5A                | 2A                   | +/- 1.5%            |
| 3.3V             | 6A                  | 8A                   | +/- 1.5%            |
| -12V             | 0.05A               | 0.05A                | +/- 5%              |
| 12V              | 400mA               | 450mA                | +/- 3%              |

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 @ 12V input**

| <b>CH1=5V</b> | <b>Efficiency (%)</b> | <b>CH2=3.3V</b> | <b>Efficiency (%)</b> |
|---------------|-----------------------|-----------------|-----------------------|
| <b>1A</b>     | <b>86%</b>            | <b>1A</b>       | <b>85%</b>            |
| <b>3A</b>     | <b>94%</b>            | <b>3A</b>       | <b>93%</b>            |
| <b>5A</b>     | <b>96%</b>            | <b>5A</b>       | <b>94%</b>            |
| <b>8A</b>     | <b>93%</b>            | <b>8A</b>       | <b>91%</b>            |

**Input Requirements:** 6-26V un-regulated, min=2A, max=10A (load dependent).

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

**Weight:** 65gramms, including cable harness, 35 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.

#### **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: -40 to 85 degree centigrade.  
Relative Humidity: 10 to 90 percent, non-condensing.

**Efficiency, MTBF:** 95%. MTBF=150K hours at 55Celsius.

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

#### **Warranty**

1 Year Limited Warranty statement. Warranty is void if maintenance or calibration is performed by end-user or by use in conjunction with power modules not provided by mini-box.com.

#### **Support**

Email: [support@mini-box.com](mailto:support@mini-box.com)

Web Site: <http://www.mini-box.com>