

PW-200-M, PW-200-V Series 12V, 200 Watts ATX Power Supply

Quick Installation Guide

Version 1.2
P/N 6657400

Introduction

The PW-200-M / PW-200-V is a small yet powerful and fully compliant ATX power supply designed to power a wide variety of standard PCs from a single 12V power source.

The PW-200-M / PW-200-V are the only cable-less mini-ITX power supply solution. Compatible with an entire range of mini-ITX motherboards as well as regular boards the PW-200 provides cool, silent power for system. The PW-200-M / PW-200-V have many advantages over a regular power supply:

- 100% silent operation
- Low heat dissipation with efficiency over 95%
- Low RFI/RMI and low ripple noise
- Plugs directly into the motherboard's power connector, no cable mess
- Long life (MTBF rated at > 100,000 hours at 55C)

Quick installation

The PW-200-M / PW-200-V have been specifically designed for the Mini-ITX form factor, thus eliminating the need for ATX power cables.

In case you are using a non-mini-ITX board or a mini-ITX board that doesn't conform to the form factor that the PW-200-M / PW-200-V was designed for, please use a regular female-male ATX power supply extension cable.

- 1) After the power board 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 PW-200-M / PW-200-V have been tested with all mini-ITX board under virtually any disk/floppy/CDROM/PCI configuration. Additionally, the PW-200-M / PW-200-V can power P4 boards. Some P4 boards require P412V connector. Please check <http://www.mini-box.com> for models that have P412V cable harness or solder a P4 cable harness

into the 4 PCB holes located near the HDD/Floppy power connector.

Removing the PW-200-M

In order to remove the PW-200 you must release the power connector latch and then pull up the unit. In case the latch is not accessible, insert a thin long rod into the hole and push the rod, against the latch.

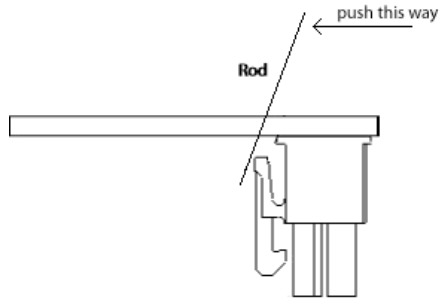


Fig 1.0, releasing the connector latch

Specifications, PW-200-M, PW-200-V

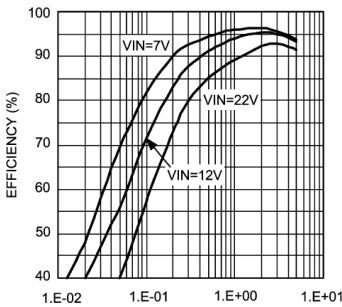
Power Ratings (Max Power = 205 Watts, peak 250watts)

Volts (V)	Max Load (A)	Peak Load (A)	Regulation %
5V	6A	10A	+/- 1.5%
5VSB	2A	10A	+/- 1.5%
3.3V	6A	10A	+/- 1.5%
-12V	0.1A	0.2A	+/- 5%
12V	12A	13.5A	Switched input

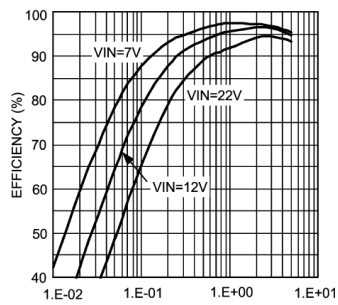
Derate by 50% at high temperatures. Ventilation is required at temperatures over 55C.

Efficiency Ratings

Efficiency vs Load Current
Ch.2 = 3.3V, Ch.1 = Off



Efficiency vs Load Current
Ch.1 = 5V, Ch.2 = Off



Size

PW-200-M: 61mm(L) * 57mm(W) * 30mm (H) (1U compliant)

PW-200-V: 155mm(L) * 23mm(W) * 30mm (H) (1U compliant)

DC-Jack

Female, 2.5*5.5*10 mm

Connectors

Molex 39-01-2200, two 3.5" drive power connector, 1 floppy. Optional 5V header (2x0.1" pitch) available on the power board. P4-12V 4 pin header 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 +5V output voltage (measured from 10% to 95%) to reach its peak.

Remote ON/OFF control

Logic level is LOW - Output voltage is enabled.

Logic level is HIGH - Output voltage is disabled.

Operating environment

Temperature: -20 to 85 degree centigrade. Ventilation required when PSU body temperature exceeds 55-65C. Operating at temperatures over 65 will drastically reduce MTBF.

Relative Humidity: 10 to 90 percent, non-condensing.

Efficiency

Greater than 95% at full load.

Shipping and storage

Temperature -40 to +60 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.