TRUEPOWER QUATTRO 1200-WATT POWER SUPPLY

USER'S MANUAL

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TRUEPOWER QUATTRO SERIES
TPQ-1200 POWER SUPPLY

HIGH-PERFORMANCE POWER SUPPLY

The TPQ-1200 goes beyond the kilowatt range of standard power supply units (PSUs) to power the largest servers and video workstations. It includes six rails of +12V output to deliver safe and reliable power to your system, and enough power and cables available to run three or more separate high-end graphics cards simultaneously.

STANDARDS AND FEATURES

The TruePower Quattro series is compatible with ATX12V v2.3 and EPS12V v2.91 specifications. The TPQ-1200 PSU features Universal Input, which automatically senses when you connect the power supply to any AC power source between 100~240V without having to worry about setting a voltage switch, and Active Power Factor Correction (Active PFC), which improves the power factor value of the power supply by altering the input current wave shape, thus helping transmission across the power grid.

CONTINUOUS POWER OUTPUT RATING

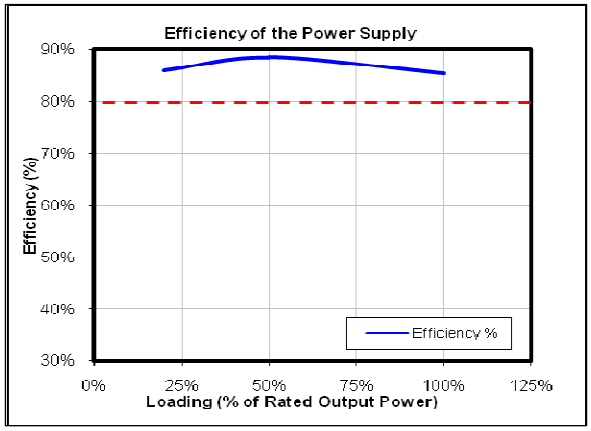
Unlike other power supplies that are rated by their peak wattage, Antec power supplies are rated based on their continuous power output. This means that your TPQ-1200 delivers 1200-watt power during normal, continuous operation; not simply at its peak

SYSTEM PROTECTION

The TPQ-1200 also includes a variety of industrial-grade protective circuitry: OCP (Over Current Protection), OVP (Over Voltage Protection), UVP (Under Voltage Protection), and SCP (Short Circuit Protection). Sometimes the PSU will "latch" into a protected state. This means that you will need to clear the fault and turn the power off to the PSU before it will function again. There are no user-replaceable fuses in your TPQ-1200.

80 PLUS® SILVER CERTIFICATION

80 PLUS® certification is the most widely recognized independent standard in power supply efficiency. An 80 PLUS® certified power supply uses less energy and generates less heat to stay cooler, run quieter and last longer. The TPQ-1200 earns the rare 80 PLUS® Silver level of efficiency, meaning that it has been certified to be at least 85% efficient at a wide range of operating loads; this will lower your operating costs and help protect the environment.



Source: 80 PLUS Verification and Testing Report

NVIDIA™ SLI™-Ready Certification

Antec's TruePower Quattro power supplies are NVIDIA™ SLI™-Ready certified for use with multiple high-end graphics cards for superior parallel graphics processing.

Advanced Hybrid Cable Management System

The TPQ-1200 uses Advanced Hybrid Cable Management. Cables that are important or mandatory are connected directly to the PSU. There are also modular connectors on the back of the PSU to add additional cables as needed. Using only the power cables you need will reduce clutter and improve airflow inside your case. For the list of connected and optional cables, see Table 3.

DC to DC Conversion

The TPQ-1200 uses DC to DC conversion for the +5V and +3.3V rails. This module operates at 85% efficiency, as opposed to traditional magnetic amplifiers that operate at only 75% efficiency. Transient response time is almost 100 times faster, providing remarkably stable power output in response to changing loads.

Pulse Width Modulation (PWM) Fan

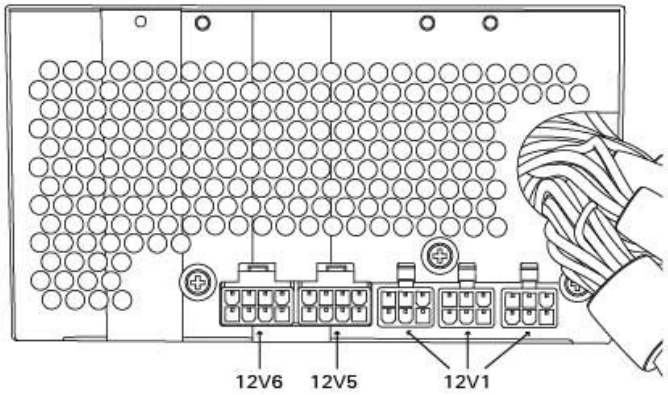
Pulse Width Modulation technology allows the TPQ-1200 to finely control the speed of the PSU's fan. By using this method instead of the traditional voltage-controlled fans, this PSU's fan can run up to 50% quieter than standard fans. A PWM fan can run as slow as 10-15% of the fan's rated top speed, whereas a voltage regulated fan can only go as low as 40%.

+12 Volt Rail Distribution

The TPQ-1200 uses six separate +12 volt power rails. The engineers have allocated the rails to different connectors to prevent voltage sags in one device due to sudden demands for power by another device.

Table 1

Direct Cabling Connectors	+12V Rail
24-pin main connector	3
8-pin (4 + 4) ATX12V, EPS	2
8-pin EPS12V	2
PCI-E w/ blue stripe	3
PCI-E w/ green stripe	4
Molex cable from PSU	1
SATA cable from PSU	1



POWER OUTPUT

The TPQ-1200 distributes a varying maximum number of amps on each rail. To see the output capacity and regulation for each different voltage, see Table 2.

TABLE 2

Voltage	Min. Load	Max. Load	Regulation	Ripple & Noise
+3,3V	0A	25A	-3% ~ +5%	<50 mV
+5V	0A	30A	-3% ~ +5%	<50 mV
+12V1	0A	38A	-3% ~ +5%	<120 mV
+12V2	0A	38A	-3% ~ +5%	<120 mV
+12V3	0A	38A	-3% ~ +5%	<120 mV
+12V4	0A	38A	-3% ~ +5%	<120 mV
+12V5	0A	38A	-3% ~ +5%	<120 mV
+12V6	0A	38A	-3% ~ +5%	<120 mV
–12V	0A	0,5A	-3% ~ +5%	<120 mV
+5VSB	0A	6A	-3% ~ +5%	<50 mV

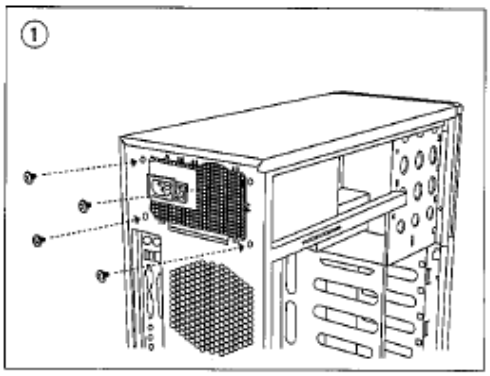
The continuous maximum total output power shall not exceed 1200W.
+12V1, +12V2, +12V3, +12V4, +12V5 and +12V6 DC maximum output power shall not exceed 1200W (100A).
+3.3V and +5V DC maximum combined output power shall not exceed 170W.

TABLE 3

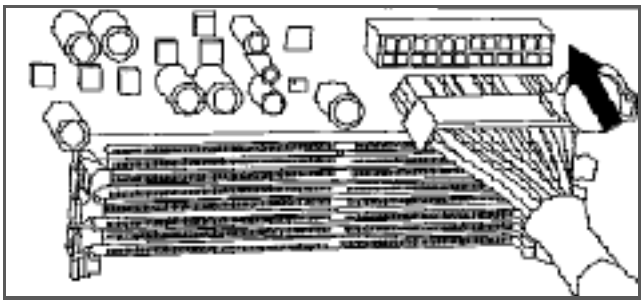
Cable Quantity	Connector	Part Name	Description
N/A		Power Supply Direct Cabling	Motherboard 24-pin (20+4) 8-pin EPS12V 8-pin (4 + 4) ATX12V, EPS 2 x 8-pin (6+2) PCI-E 3 x Molex + 1 x Floppy 3 x SATA
1	 x 3  x1	Molex connector and Floppy connector w/ cable	Includes three Molex connectors and one Floppy connector
1	 x 3	Molex connectors w/ cable	Includes three Molex connectors
2	 x 3	Serial ATA connectors w/ cable	Includes three Serial ATA connectors
1	 x 2	Serial ATA connectors w/ cable	Includes two Serial ATA connectors
2	 x 1  x 1	PCI Express connector w/ cable	Includes one 6-pin and one 8-pin (6 + 2) PCI Express connector

INSTALLATION:

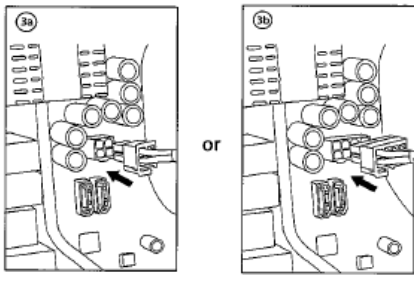
1. Install the TPQ-1200 PSU into your case with the four screws provided.



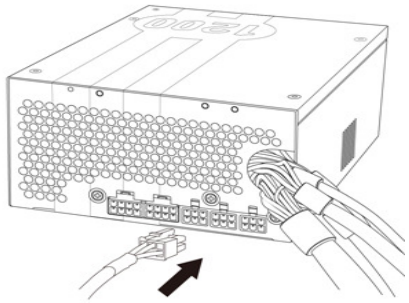
2. Connect the 24-pin main power connector to your motherboard.



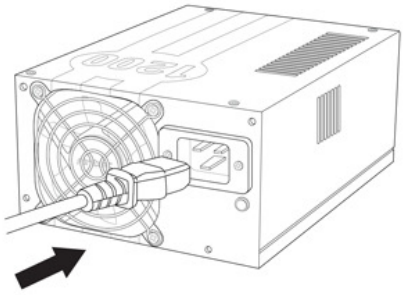
3. Connect the 8-pin or 4-pin ATX12V connector for the CPU to the appropriate connector on your motherboard. If your motherboard has an 8-pin socket with a cover on some of the openings, we recommend that you remove the cover and use the 8-pin connector.
Note: Please also refer to your motherboard user's manual for any special instructions.



4. Connect the cables from the cable pack to the socket on the power supply as needed. If you are going to plug the additional PCI-E cable into the PSU, it should go into the red socket. If the red socket is not being used for PCI-E, then it can be used for another cable from the pack that accompanies the PSU.



5. Connect the AC power cord to the power supply AC inlet. Please be sure to use the heavy-duty cord supplied with your TPQ-1200.



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