

#### Unmatched/High-Efficiency/Performance.



Thermaltake Purepower 600W Power Supply



Thermaltake Coolal Your Life

Purepower™ PSU

ATX12V 2.3 Version

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### **1.** Introduction

Thank you for choosing a quality Thermaltake power supply, we live up to the promise of the Thermaltake logo in our unending quest for excellence and believe that it will provide you with many years of service.

Thermaltake Technologies deliver the most solid line of power supplies built specifically towards high-end computer systems. Please take the time to familiarize with the power supply and its connectors. Prior to installing this power supply into your system. Please read through the whole manual and follow all the instructions prior to installing the unit, failure to comply may result in severe physical damages.

Should you have any suggestions or comments, please visit our web site at:

http://www.thermaltakeusa.com/Support\_erma.aspx

or e-mail to support@thermaltakeusa.com

We appreciate your feedback, no matter whether it is constructive or critical, your thoughts are important to us. Once again, thank you for choosing a Thermaltake power supply.

# 2. Warnings and Caution

- 1. Do not unplug the AC power cord when the power supply is in use. Doing so may cause damage to your components.
- 2. Do not place the power supply in a high humidity and/or temperature environment.
- High voltages exist in the power supply. Do not open the power supply case unless you are an authorized service technician or electrician. Doing so will void the warranty.
- 4. PSU should be powered by the source indicated on the rating label.
- 5. All warrantees and guarantees will be voided, if failure to comply with any of the warnings and cautions covered in this manual.

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#### 4. Power Connector Introduction

| P/N                          | W0318 |
|------------------------------|-------|
| Wattage                      | 600W  |
| 20+4pin Main<br>Connector    | 1     |
| 4pin +12V CPU<br>Connector   | 1     |
| 8pin +12V CPU<br>Connector   | 1     |
| SATA<br>Connector            | 5     |
| Peripheral<br>Connector      | 6     |
| <br>Floppy<br>Connector      | 1     |
| 8pin PCI-E<br>Connector      | 1     |
| 6pin PCI-E<br>Connector      | 1     |
| PCI-E 8 to 6pin<br>Connector | 1     |

| MODELS       | Connector Type | Connectors & Cable length                                                                                              |
|--------------|----------------|------------------------------------------------------------------------------------------------------------------------|
|              | 24pin          | 1 x 24pin Main connector:<br>(450mm)                                                                                   |
|              | ATX 12V 4pin   | 1 x ATX 12V 4pin connector:<br>(570mm)                                                                                 |
|              | ATX 12V 8pin   | 1 x ATX 12V 8pin connector:<br>(450mm)                                                                                 |
| W0318 (600W) | Molex & FDD    | 3 x Peripheral connectors:<br>(450mm+120mm+120mm)<br>3 x Peripheral & 1 x FDD connectors:<br>(450mm+120mm+120mm+120mm) |
|              | SATA           | 2 x S-ATA connectors:<br>(450mm+120mm)                                                                                 |
|              | JAIA           | 3 x S-ATA connectors:<br>(450mm+120mm+120mm)                                                                           |
|              | PCI-E 6pin     | 1 x 6pin PCI-E connectors:<br>(450mm)                                                                                  |
|              | PCI-E 8pin     | 1 x 8pin PCI-E connectors:<br>(450mm)                                                                                  |

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#### **5.** Installation Steps

Note: Make sure that your system is turned off and unplugged. Disconnect the AC power cord from your old power supply.

- 1. Open your computer case; please refer to the direction in your case manual.
- 2. Install the PSU into the case with the four screws provided.
- Connect the 24 pin Main Power Connector to your motherboard and peripheral. If your motherboard uses a 20-pin connector, detach the 4-pin attachment on the 24-pin connector. Note: The detachable 4-pin section cannot be used in place of a 4-pin +12V connector.
- 4. Connect the 4-pin connector for the CPU.
- 5. Connect other peripheral power connectors to devices such as hard drives, optical drives, etc.
- 6. Close your computer case and connect the AC power cord to the power supply AC inlet.

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### **6.** Product Features

- Intel ATX 12V 2.3 version Complied
- 80% High efficiency
- Universal AC input 100-240V~ automatically scans and detects the correct voltage for different country.
- Active Power Factor Correction (PF>0.99)
- Two independent & dedicated +12V rails (12V1 & 12V2) provide stable output for PC system.
- High reliability: MTBF>100,000 hours.
- Super silent 12cm fan
- Industry grade protections: Over Current, Over Voltage, and Short-Circuit protection.
- Safety / EMI Approvals: CE, BSMI, GOST, TUV, FCC, UL and CUL certified.

### 7. Output Specification

| INF   | INPUT VOLTAGE: 100-240V~, 10A, FREQUENCY:50-60HZ |       |     |       |       |      |       |              |
|-------|--|-------|-----|-------|-------|------|-------|--------------|
| P/N   | Voltage  | +3.3V | +5V | +12V1 | +12V2 | -12V | +5Vsb | Max<br>POWER |
| W0318 | MAX Load   | 24A   | 15A | 30A   | 22A   | 0.3A | 2.5A  | 600W         |
| WU310 | Combined<br>Wattage                              | 13    | w   | 50-   | 4W    |      |       | 00000        |

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# 8. Total Protection

#### **Over Voltage Protection**

| W0318 (600W)   |                  |  |  |
|----------------|------------------|--|--|
| Voltage Source | Protection Point |  |  |
| +3.3V          | 4.5V Max.        |  |  |
| +5V            | 7.0V Max.        |  |  |
| +12V           | 15.6V Max.       |  |  |

#### **Over Current Protection**

The power supply should provide OCP and should shutdown before 240VA of each output power(included +5V, +3.3V). The power supply should provide OCP when over current output. of each output power(included +12V).

#### Short Circuit Protection

A short circuit placed on main output shall cause no damage and the power supply shall shutdown and latch. If the +5V aux output is shorted, the supply shall not latch off. When the fault is removed, +5V aux will return to regulation.



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### 9. EMI & SAFETY

| EMI Regulatory  |   |
|-----------------|---|
| 600W            | FCC Part 15, Subpart J class B 115VAC operation |
| 60077           | CISPR 22 Class B                                |
| SAFETY Standard | ds  |
| 600W            | CE / UL / CUL / TUV / FCC / BSMI / GOST         |

#### **10.** Environments

| Temperature Range |                           |  |
|-------------------|---------------------------|--|
| Operating         | +10 to +50°C              |  |
| Storage           | -40 to +70°C              |  |
| Humidity          |                           |  |
| Operating         | 20-85% RH, Non-condensing |  |
| Storage           | 5-95% RH, Non-condensing  |  |

#### 11. Trouble-Shooting

If the power supply fails to function properly, please follow the troubleshooting guide before application for service:

- 1. Is the power cord plugged properly into electrical outlet and into the power supply AC inlet?
- 2. Please make sure all power connectors are properly connected to all the devices.
- 3. If connected to a UPS unit, is the UPS on and plugged in?

If the power supply is still unable to function properly after following the above instruction, please contact you local store or Tt branch office for after sales service. You may also refer to Thermal take' s website for more technical support:

#### www.thermaltake.com

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