



Expand Your Imagination

# iGREEN POWER 500W

www.coolermaster.com

## Embrace the Green World

### Super Silent

### 85% Efficiency

#### RS-500-ASAA

Cooler Master's power supply has been praised highly of its high efficiency and stability. In the year of 2006, Cooler Master will launch a new series of power supply iGreen Power 430W/500W/600W. iGreen Power is the world first power supply which achieves 85% efficiency through Double Forward Switching Circuit Technology. This intelligent circuit configuration stabilizes your running system without costing you a fortune.

While staying true to our original mission to provide the best products, Cooler Master is responding to the environmental concern around our globe. We make this iGreen environmental friendly - it has met the Energy Star and Blue Angel requirements.



120mm silent dual ball bearing fan (17dBA) with exclusive fan guard



Sleeved Cable for neat management and airflow improvement



Honey Combs Structure & Power Failure Detector



High Quality Electroplating



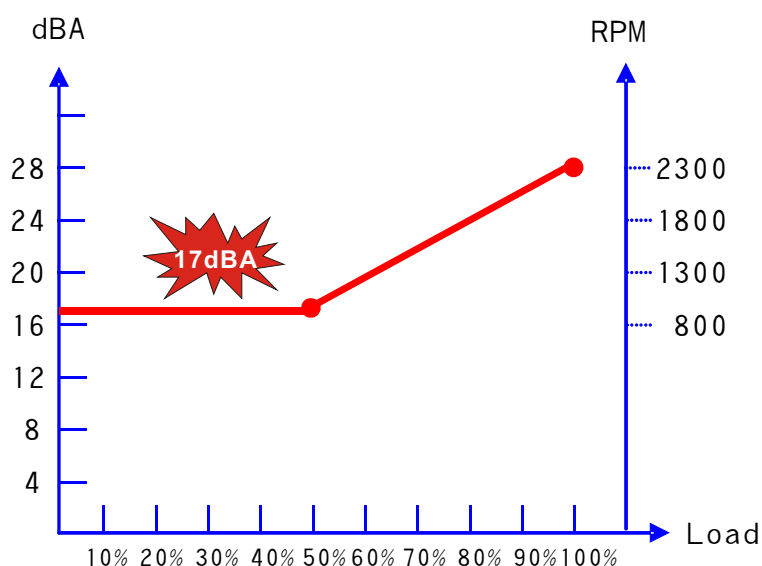
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## Features

1. Intelligent Circuit Configuration
  - ◆ No.1 "Double Forward Switching Circuit" Technology for 85% Efficiency
  - ◆ Intelligent circuit configuration for higher stability and reliability
  - ◆ Super silent operation with intelligent fan speed controller
2. Green Power Product
  - ◆ Green power design to meet "Energy Star" and "Blue Angel" requirements for energy and money saving
  - ◆ RoHS Compliance
3. High Performance
  - ◆ Compliance with the newest Intel® standard ATX 12V V 2.2
  - ◆ Compliance with the newest SSI standard EPS 12V V2.91
  - ◆ 120mm dual ball bearing fan makes superb heat dissipation at low noise (17dBA)
  - ◆ Sleeved Cables for neat management and airflow improvement.
4. High Reliability
  - ◆ Life expectancy: MTBF > 400,000 hours
  - ◆ Passing Over-Voltage, Under-Voltage, Over-Temperature, Over-Current, Over-Loading, and Short Circuit Protection
  - ◆ Passing 100% burn-in, hi-pot & ATE tested
5. Worry Free While you work or play
  - ◆ Power Failure Detector will light up when Over-Voltage, Under-Voltage, Over-Temperature, Over-Current, Over-Loading, and Short circuit occur.
  - ◆ PCI-e connector with bead core protection to minimize EMI for reducing noises.



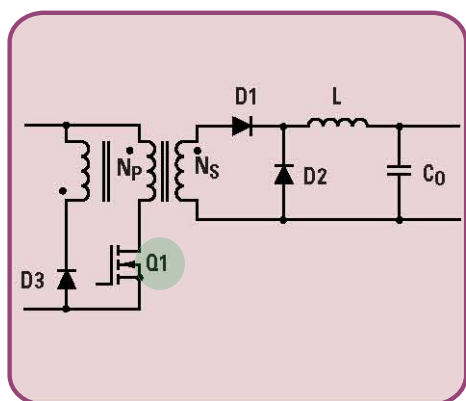
### PCI-e Connector with Bead Core

- ◆ PCI-e connector with bead core protection to minimize EMI for reducing noises
- ◆ Ready for SLI & CrossFire

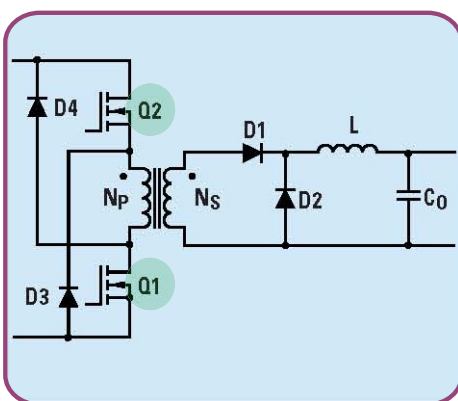


## Double Forward Switching Circuit

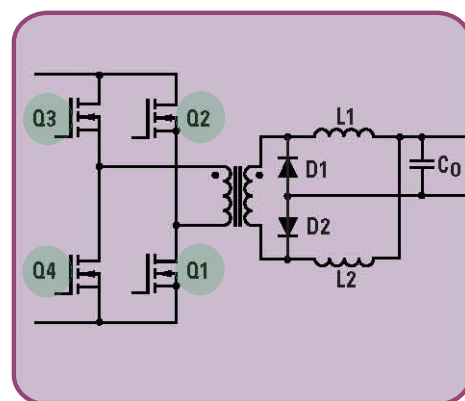
iGreen Power is the world first power supply which achieves 85% efficiency through Double Forward Switching Circuit Technology. This intelligent circuit configuration stabilizes your running system without costing you a fortune.



Forward Circuit



Double Forward Circuit



Phase Shift Circuit

Switching Circuit	Forward	Double Forward	Phase Shift ZVT
Switching Components (MOSFETs)	1	2	4
Efficiency	Low (65 ~ 75%)	High (75% ~ 85% )	High (75% ~ 85% )
Power Lose	High	Low	Low
Product Life	Low (MTBF>50,000 hrs)	High (MTBF>200,000hrs)	High (MTBF>100,000hrs)
Stability	High	High	Medium
Rating	☆☆☆	☆☆☆☆☆	☆☆☆☆

**High Technology = High Efficiency**

High Efficiency → Low Lost → Low Power Input → Energy & Money Saving

**High Technology = High Stability**

High Stability → Long Life Expectancy → Money Saving

## High Technology

Save **1000 D(kw/hr)** electricity will reduce **0.43 ton(1000L<sup>3</sup>)** carbon dioxide (CO<sub>2</sub>)

**Energy Save will achieve environment protection**





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## Specifications

Model	RS-500-ASAA (Active)
Type	ATX Form Factor 12V V2.2 / SSI standard EPS 12V V2.91
PFC	Active PFC (0.99)
Input Voltage	90 ~ 264V (Auto Range)
Input Current	10A @ 115Vac / 5A @ 230Vac
Input Frequency Range	47 ~ 63 Hz
Fan	Dual ball bearing 120mm fan
Power Good Signal	100 ~ 500 ms
Hold Up Time	> 17 ms
Efficiency (Load)	81% (100W) / 85% (250W) / 82% (500W)
MTBF	>400,000 hrs
Output Capacity	500 Watts Continuous
Max. Output Capacity	600 Watts
Protection	OVP / UVP / OTP / OCP / OLP / OPP / SCP
Dimension	Standard ATX 150 x 140 x 86 (mm)
Operation Temperature	5~50°C ( Nominal Input Voltage )
Safety	Nemko / TUV / cUL / CE / BSMI / FCC / CCC



20+4pin  
Motherboard  
Connector x1



4 pin +12V  
CPU Connector  
x 1



8 pin +12V  
CPU Connector  
x 1



6 pin PCI-e  
Connectors  
x 2



S-ATA  
Connectors  
x 6



4pin  
Peripheral  
Connectors x5



4 pin  
Floppy Connector  
x 1

## Support upto 8~10pcs USB Devices

- ◆ The newest Intel® standard ATX 12V V 2.2
- ◆ With 5Vsb increasing from 2A to 3A, it could support up to 8~10pcs USB devices.
- ◆ USB devices could be charged when your PC is power off.

AC INPUT	115V / 230V			10A / 5A	60/50Hz		
DC OUTPUT	+3.3V	+5V	+12 V <sub>1</sub>	+12 V <sub>2</sub>	+12 V <sub>3</sub>	-12V	+5Vs b
MAX.	25A	20A	19.5A	19.5A	19A	0.8A	3.5A
CONTINUITY	20A	15A	14A	13A	6A	0.5A	3.0A
MAX. POWER	141W		396W			6W	15W
	500W (Continuous)						

## Powerful +12V Rails (396W)