



thermaltake

SMART SERIES
POWER SUPPLY

Smart W3 Series



SMART W3 500W

DATASHEET



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SMART W3 500W

5 YEAR
WARRANTY

Flat
Black Cables

ATX 3.1
Compatible

Ultra Quiet
120mm Fan

Features

- Fully compatible with Intel ATX 3.1 specifications.
- 80 PLUS® certified up to 80% efficiency.
- Low-profile flat black cables.
- High quality 105°C/221°F main capacitor.
- 500W continuous output at 40°C/104°F operating environment.
- Ultra-quiet 120mm cooling fan delivers excellent airflow at an exceptionally low noise level.
- High amperage single +12V rail design.
- DC-DC design for more precise electrical output.
- Intel C6/C7 states & ErP ready
- Built-in industry grade protections: OCP, OVP, UVP, OPP, SCP, OTP.
- Compact Sizing: 150mm(W)x86mm(H)x140mm(D).
- 5 years warranty.



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Highlighted Features

Fully Compatible With ATX 3.1 Specifications

Meets all the needs of a computer system, providing powerful and stable power.

ATX 3.1 Compatible

- Supports 200% power excursion
- Reaches 60% low load efficiency
- Complies with required power supply timing standards

High Amperage Single +12V Rail & DC to DC Design

Powerful single +12V rail and DC to DC design for the best compatibility.

High Quality 105°C/221°F Main Capacitors

Improves the durability and offers the highest stability and reliability.

Low-Profile Flat Black Cables

Makes cable management easier.



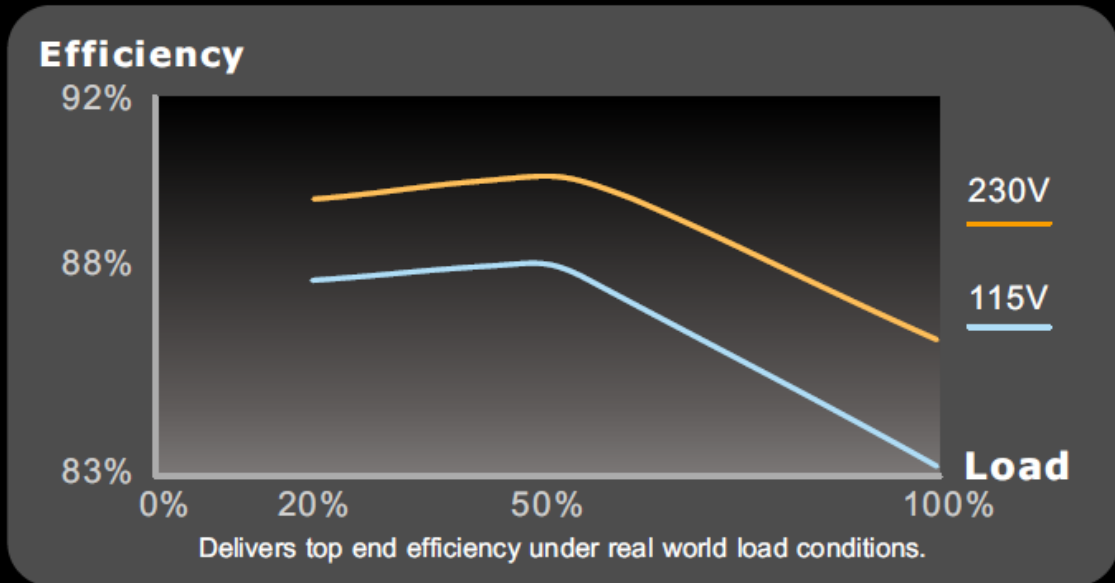


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Eco Design



80 PLUS® Certified Efficiency

Delivers top end efficiency under real world load conditions.

Supports Energy Star 5.0* energy standard

Smart W3 series is suitable for use in Energy Star-compatible computers.

Supports Intel Deep Power Down C6/C7 Status

Helps your PC system operate more power efficiently.



Corresponds to the EU directives on WEEE and RoHS

Thermaltake considers its full impact on the environment during manufacturing and maintains green facilities to ensure Smart W3 series meets WEEE & RoHS requirements.



Specification

AC Input	Input Voltage: 100-240V~				
	Input Current: 10A - 5A				
	Frequency: 50Hz/60Hz				
DC Output	+3.3V	+5V	+12V	-12V	+5VSB
Max Output Current	16A	16A	41.67A	0.3A	3A
Max Output Power	100W		500W	3.6W	15W
Total Power	500W				

GENERAL INFO

P/N	PS-SPW-0500NNFAW*-1
Model	SP3-500AH2NLW
Max. Output Capacity	500W
Dimension	150mm(W)x86mm(H)x140mm(D)
PFC	Active PFC
Power Good Signal	100-150 msec
Hold-Up Time	> 17msec at 80% load
Cooling System	12cm FDB Fan

ENVIRONMENT

Operating Temperature	5°C to + 40°C
Operating Humidity	20% to 85%, non-condensing
Storage Temperature	-40°C to + 55°C
Storage Humidity	10% to 95%, non-condensing

MISCELLANEOUS

Efficiency	Meet 80 PLUS® at 115Vac input.
MTBF	100,000 hrs minimum
Safety Approval	CB/FCC/cTUVus/ICES
Protection	OCP/OVP/UVP/OPP/OTP/SCP

PCIe CONNECTOR

PCIe 6+2pin	2
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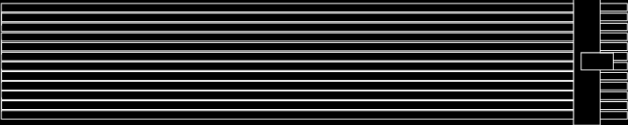

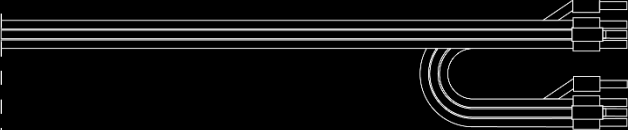
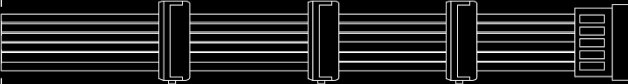
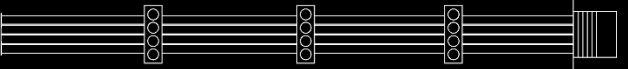


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Connector and Cable Specification

Connector Type	Connector Quantity		Cable Quantity	Cable Length
Main Power (24Pin)	X 1		X 1	600mm
ATX 12V (4+4Pin)	X 1		X 1	650mm
PCIe (6+2Pin)	X 2		X 1	500mm+150mm
SATA (5Pin)	X 4		X 1	500mm+150mm +150mm+150mm
Peripheral (4Pin)	X 4		X 1	500mm+150mm +150mm+150mm



Total Protection

Protections	Voltage Source		
	+3.3V	+5V	+12V
Over Voltage Protection	3.76~4.3V	5.74~7.0V	13.4~15.6V
Under Voltage Protection	2.0~2.6V	3.3~3.9V	8.5~9.7V
Over Current Protection	25~40A	25~40A	66~83A
Over Power Protection	Protection at 160%~200% over peak load.		
Over Temperature Protection	Protection temperature is 45°C~55°C		
Short Circuit Protection	Short circuit placed on +5V,+12V,+3.3V,-12V will latch off. +5VSB will auto-recovery.		