

Operational Description

Zalman's CNPS products enable a noiseless computing environment, in accordance with our policy of developing people-friendly products.

This ultra-quiet power supply complies with ATX12V Version 2.2, and supports the Latest dual-core CPUs(Intel Core2 series/AMD Athlon64-X2 series), as well as the Latest dual graphic card systems(SLI/CrossFire).

* CNPS (Computer Noise Prevention System) refers to a system that reduces a conventional computer's noise level (30dB or more) to an inaudible level (20dB or less).

Zalman's silent/ultra-quiet computers of the highest quality.

■ Heatpipe Installed for Maximum Cooling Performance and Ultra-Quiet Operation

A heatpipe with ultra-high cooling performance incorporated on the power supply's main Rectifiers enables high load operation even at low RPM for a dramatic reduction in noise levels.



■ Improved Power Factor & Reduced Harmonics through Active PFC

By implementing Active PFC(Power Factor Correction), the Power Factor (PF) is improved from 75% (Passive PFC) up to 99% while harmful harmonic frequencies are reduced to meet the line harmonic distortion requirements of IEC61000-3-2 Class D.

■ High Efficiency Design

This power supply is capable of reaching a maximum of 84% efficiency(230VAC, Full & Typical Load) through its use of high switching frequency and low power-loss circuitry.

■ ATX20+4 Pin Main Connector

ATX20+4 pin main connector broadens the range of motherboard compatibility.

■ Supports ATX12V CPU 4-Pin and EPS12V CPU 8-Pin

Two ATX12V CPU 2 x 2(4-Pin) power cables can be combined to form an EPS12V CPU 8-Pin power cable.

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■ Dual PCI Express VGA Power 6-Pin Connector

Supports Nvidia SLI and ATI CrossFire dual graphic card systems.

■ Module Cables

Module cables provide organized cable management and improved air circulation inside the computer case.

■ Ultra Quiet 120mm Fan

Ultra quiet 2-Ball Bearing ADDA 120mm fan maximizes the airflow and minimizes the noise level enabling a noiseless computing environment with optimized cooling.

■ Four Independent +12VDC Outputs

Four +12VDC rails supply power independently to the CPU, VGA, motherboard, and peripheral components for the highest level of stability and performance.

■ EZ Grip Connectors for ODDs & HDDs

EZ Grip Connectors for easy removal of the plugs from ODDs & HDDs.

■ Gold-Plated Terminals

Gold-plating the terminals minimize power loss by reducing contact resistance.

■ Sleeved Cables

All power cables are sleeved for easy cable management and improved air circulation inside the computer case.

■ Multiple Safety Features

Over-voltage Protection, Over-current Protection, Short-circuit Protection,
Under-voltage Protection, Over-temperature Protection.

■ Internal Blue LED

Blue LEDs are installed inside the power supply for cool aesthetics.

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Specification

AC Input Range	Voltage	100VAC ~ 240VAC ±10%			DC OUTPUT						
	Frequency	47Hz~63Hz			ZM600-HP						
AC Input Range (Rated)	115VAC	10A			Vout	Output Load Rating			Combined Power		
	230VAC	5A				Imin	Imax	Ipeak			
PFC Type	Active PFC				+3.3V	0.8A	24A		155W	600W	
Power Factor	99% Maximum				+5V	0.3A	24A				
Inrush Current Limit (@ Cold start at 25℃)	115VAC	60A			+12V1	0A	16A		504W		
	230VAC	100A			+12V2	0A	16A				
Efficiency	84% Maximum @230VAC, Full & Typical Load				+12V3	1A	16A				
					+12V4	1A	16A				
DC Output Voltage Regulations	Vout	Regulation Range			-12V	0.0A	0.5A		18.5W		
	+3.3VDC	±5%	+3.14V	~ +3.47V	+5VSB	0.0A	2.5A	3.5A			
	+5VDC	±5%	+4.75V	~ +5.25V	Protection						
	+12V1DC	±5%	+11.4V	~ +12.6V	Over-voltage Protection (OVP)						
	+12V2DC	±5%	+11.4V	~ +12.6V	Over-current Protection (OCP)						
	+12V3DC	±5%	+11.4V	~ +12.6V	Under-voltage Protection (UVP)						
	+12V4DC	±5%	+11.4V	~ +12.6V	Short-circuit Protection(SCP)						
	-12VDC	±10%	-10.8V	~ -13.0V	Over-temperature Protection (OTP)						
	+5VSB	±5%	+4.75V	~ +5.25V	Ambient Temperature						
	DC Output Ripple & Noise	Vout	Specification			Operation		0℃ ~ +50℃			
+3.3VDC		100mV			Stored		-20℃ ~ +80℃				
+5VDC		100mV			Ambient Humidity						
+12V1DC		200mV			Operation		5 %RH ~ 95 %RH				
+12V2DC		200mV			Stored		5 %RH ~ 95 %RH				
+12V3DC		200mV			Dimensions						
+12V4DC		200mV			150mm(L) * 165mm(W) * 86mm(H)						
-12VDC		200mV									
+5VSB		100mV									