

WATT POWER SOLUTIONS

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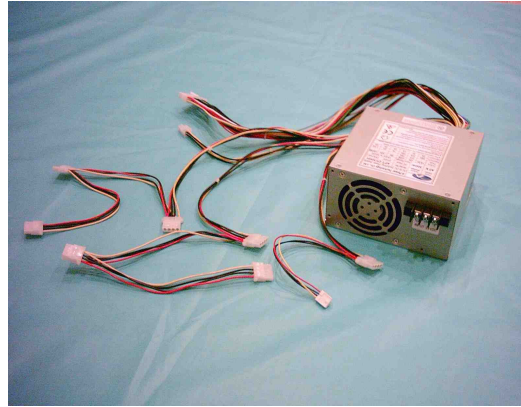
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VAT Reg No: 776 3065 10



WPPS25024 / WPPS30024 ATX Power Supplies



The WPPS25024 / WPPS30024 ATX power supply in a PS/2 ATX form factor. Meets all worldwide safety requirements and electromagnetic compatibility as required by ITX power supplies. Size 150mm(W) x 140mm (L) x 86mm (H).

Input Voltage	WPPS25024 22V DC to 30VDC. , WPPS30024 22V DC to 36V DC
Input Current	At 24vDC input and at Full Load. WPPS25024 15 Amps and WPPS30024 18 Amps
Inrush Current	< / = 15 Amps Cold Start @25*C ambient
Input Connector	3 Position Terminal Block rated at 300v / 20 Amps
Efficiency	70% at 24vDC Input
OVP	WPPS30024 +5v OVP +5.6v, +3.3v OVP 4.1v
Hold Up Time	16mS min at Full Load and nominal Input Voltage 24vDC

Output Characteristics WPPS25024

Nom Voltage	Regulation	O/P Current min	O/P Current max	Ripple and Noise
+3.3V	+/- 5%	0A	14.0A	33mv
+5V	+/-5%	5A	24.0A	50mv
+12V	+/-5%	2A	9.0A	120mv
+5Vsb	+/-5%	0A	2.0A	50mv
-12V	+/-10 %	0A	1.0A	120ma
-5V	+/-12 %	0A	1.0A	70mV

Combined output of +3.3v and +5v shall not exceed 150 Watts

Output Characteristics WPPS30024

Nom Voltage	Regulation	O/P Current min	O/P Current max	Ripple and Noise
+3.3V	+/- 5%	0A	28.0A	50mv
+5V	+/-5%	3A	30.0A (35A Pk)	50mv
+12V	+/-5%	1.0A	12.0A (15A Pk)	120mv
+5Vsb	+/-5%	0A	1.5A	50mv
-12V	+/-10%	0A	2.0A	150ma
-5V	+/-10%	0A	1.0A	100mV

Combined output of +3.3v and +5v shall not exceed 220 Watts

20MHZ bandwidth ripple and noise is measure by using 0.1uF CC & 10uF/50v EC bypassed at the output connector.

Regulation shows the % of absolute value of nominal output voltage. Total output power should be 250W / 300 W maximum respectively.

Cross regulation is measured at 25% to 100% maximum load.

Temperature Coefficient

The temperature coefficient of all outputs is +/-0.05% per degree C maximum.

Over Voltage Protection

Nominal voltage	Over voltage range from	Over voltage range to
+3.3V dc	+3.7V dc	+4.1V dc
+5V dc	+5.6V dc	+6.5V dc

The power supply will automatically recover after the over voltage fault has been being removed.

Short Circuit Protection

Short circuit occurring on any output should not cause any damage to the power supply, but will shut it down. The power supply will not automatically recover after the overload is removed. A manual reset is necessary.

Over Load Protection

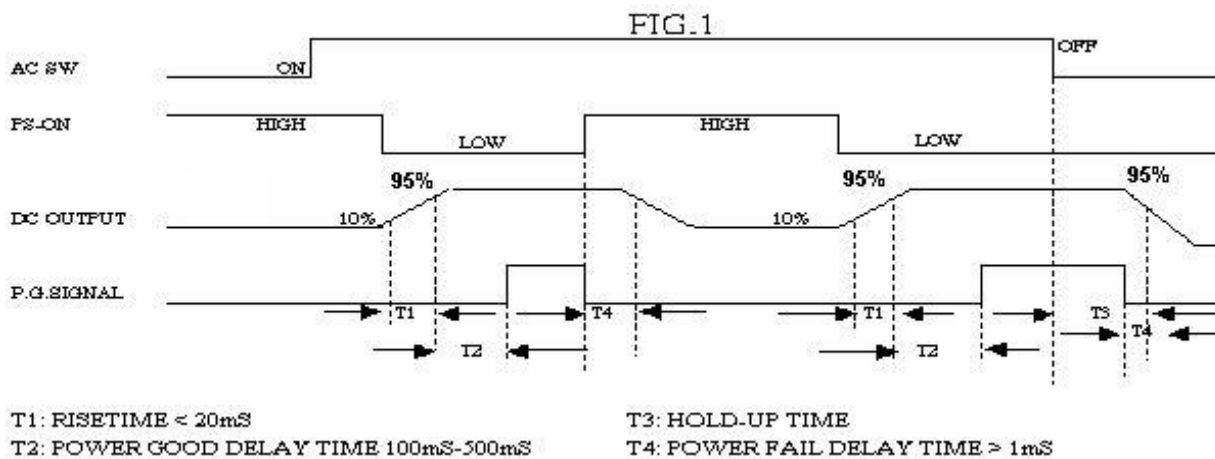
An over load protection will be effected when either of the loadings: +3.3V, +5V, +12V, -5V, -12V, +5Vsb exceeds +130% +/- 10%. The power supply will not automatically recover after the over load is removed. A manual reset is necessary.

Rise Time

After turn-on, less than 16mS will be needed for the rise of +5V output voltage (measured from 10% point to 95% point on the waveform) to reach its peak.

Power Good signal

After power-on with nominal DC input, there may be a turn-on delay (between 100mS to 500mS) before the Power Good Signal is issued. Which occurs before the +5V output reaches its minimum sense level of 4.75V. When turned off, the Power Good Signal shall go to a lower level for at least 1mS before +5v falls under the regulation limit as described earlier.



Safety

Designed to meet the required levels
UL - UL60950; TUV – EN60950; CE

Electromagnetic Compatibility (Meets)

Tests for conformance to this requirement will be performed with the host system.
FCC requirements shall comply with the FCC ‘Class B’ limits.
CE requirements shall conform to the ‘Class B’ requirements of EN55022 for EMS.

Environment

Operating Temperature WPPS25024 0 to +50 degrees C, WPPS30024 -20 to +70 degrees C.
Operating Humidity 20%-85% . non condensing

Shipping and Storage

Temperature range -40 to +80 degrees C
Storage Humidity 10 to 90%, non-condensing.

Altitude

10,000 feet Operating
50,000 feet Non Operating

Weight

2.0 Kgs

Cooling

80 x 80 x 25 Ball Bearing Fan

Burn-In Test

100% burn-in tested at maximum load under 50 degrees C (+/-5 degrees C).

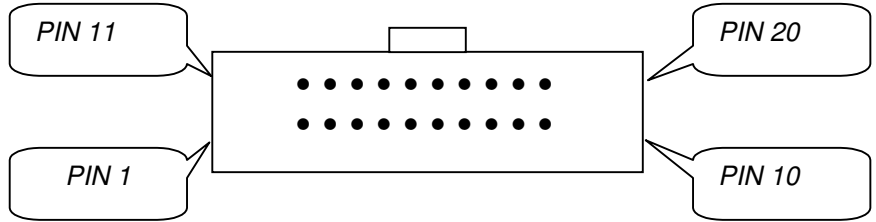
Reliability

MTBF: >50,000 hours . Maximum load, at 25 degrees C ambient temperature.

Output Connectors

7 x HD connectors, 1 x FD connector, 1 x P4 connector, and 1 x 20 way ATX connector

Pin assignment Flex ATX main power supply connector



Pin	Signal	Wire	
1	+3.3 VDC	Orange	20AWG
2	+3.3 VDC	Orange	20AWG
3	COM	Black	20AWG
4	+5 VDC	Red	20AWG
5	COM	Black	20AWG
6	+5 VDC	Red	20AWG
7	COM	Black	20AWG
8	POK	Grey	22AWG
9	+5 VSB	Purple	22AWG
10	+12 VDC	Yellow	20AWG

Pin	Signal	Wire	
11	+3.3V VDC	Orange	20AWG
12	-12 VDC	Blue	22AWG
13	COM	Black	20AWG
14	PS-ON	Green	22AWG
15	COM	Black	20AWG
16	COM	Black	20AWG
17	COM	Black	20AWG
18	-5 VDC	White	20AWG
19	+5 VDC	Red	20AWG
20	+5 VDC	Red	20AWG

Pentium P4 Connector Output

1	Common	Black	20AWG
2	Common	Black	20AWG
3	+12 VDC	Yellow	20AWG
4	+12 VDC	Yellow	20AWG

HDD, CD ROM, DVD ROM Output Connector

1	+12 VDC	Yellow	20AWG
2	Common	Black	20AWG
3	Common	Black	20AWG
4	+5 VDC	Red	20AWG

FDD Output Connector

1	+5 VDC	Red	20AWG
2	Common	Black	20AWG
3	Common	Black	20AWG
4	+12 VDC	Yellow	20AWG

