

## WATT POWER SOLUTIONS

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VAT Reg No: 776 3065 10



## WPPS100-ATX Desktop Adapter Data Sheet



The WPPS100-ATX is a grounded, single phase, power factor corrected (0.9 at full load), 100watt, 5 output ATX, fan cooled, switching adapter.

**Input Voltage** 90-264VAC 47-63Hz  
**Input Current** 2A at 90VAC  
**Inrush Current** 50A at 230VAC Cold start  
**Efficiency** 80% typical at 115VAC full load

### Output Characteristics

Nom Voltage	Min Current	Max Current	Regulation	Ripple and Noise
+3.3V DC	500mA	5 A	+/-5%	50mV
+5V DC	1 A	5 A	+/-5%	60mV
+12V DC	500mA	5 A	+/-5%	120mV
-12V DC	0 A	1.5A	+/-5%	120mV
+5VSB	0 A	1 A	+/-5%	100mV

Ripple and Noise is measured with 20MHz bandwidth, using 0.1uF CC and 10uF/50V EC, bypassed at the output connector

Regulation shows the percentage of absolute value of nominal output voltage.

+5VSB is optional.

**Hold-up Time** 16ms typical at full load 115VAC  
**Over Shoot** Any overshoot during turn on / turn off should be less than +/-5% of the voltage regulation tolerance. No voltage of opposite polarity shall be present on any output during turn on / turn off.  
**Temperature Coefficient** The temperature coefficient of all outputs is +/-0.05% per degree C maximum.

**Over Voltage Protection** If any over voltage fault occurs, the power supply will latch off before any output exceeds the limits below. The supply will recover on recycling of the mains switch.

Nominal Voltage	OVP Range from	OVP range to
+3.3V DC	+3.65V DC	+4.3V DC
+5V DC	+5.6V DC	+6.5V DC

**Short Circuit Protection** Any short circuit occurring on any DC output should not cause any damage to the power supply, but will shut it down. The power supply will not automatically recover on removal of the fault. The supply will recover on recycling of the mains switch.

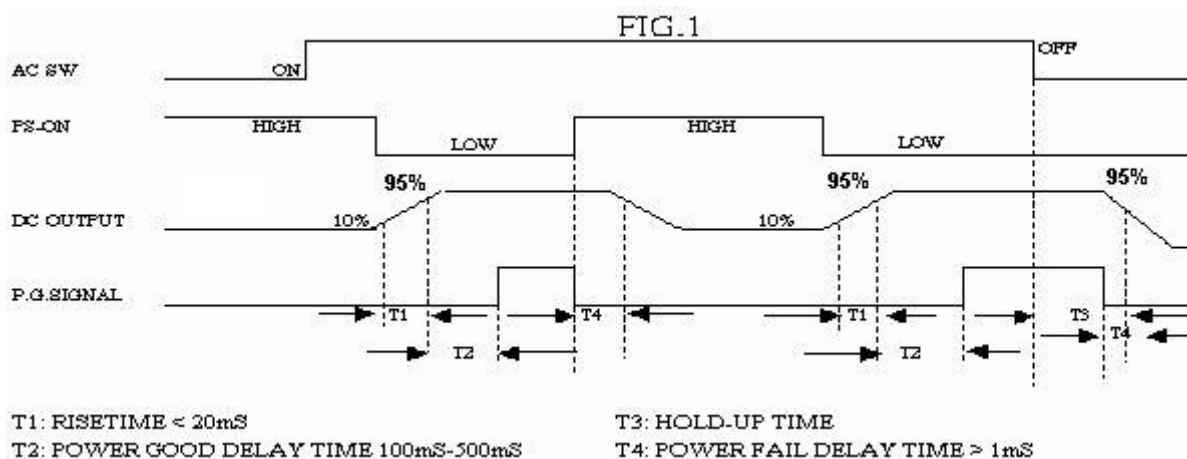
**Overload Protection** An overload protection will be effected when either of the loadings on the +5V, +3.3V and +12V exceeds 110% to 160% MAX. The power supply will not automatically recover. The mains must be reset via the mains switch.

**Over Temperature Protection** The adapter has an over temperature protection sense which can trip the power supply at 90 degrees C. Such an overheated condition is typically the result of internal over current loading or abnormal conditions. When the thermistor sense is over the protection point, the adapter will reduce the output power automatically until the temperature has been reduced. The adapter will recover automatically.

**Remote On/Off** As logic level is LOW, the Output Voltage is enabled.  
As logic level is HIGH or floating, the Output Voltage is disabled.  
Logic High level is 3.5-5.25V. Logic Low level is 0-0.5V

**Rise Time** After turning on, less than 20mS will be needed for the rise of the +5V o/p voltage to reach its peak. (Measured from 10% to 90% on the waveform.)

**Power Good Signal** After power-on with nominal AC input, there will be a turn-on delay (between 100mS to 500mS) before the Power Good Signal goes HIGH and is present. This occurs because the +5V output has to reach its minimum sense level of 4.75V. When the power supply is turned off, the Power Good Signal goes LOW for at least 1mS before +5v falls below 4.75V.



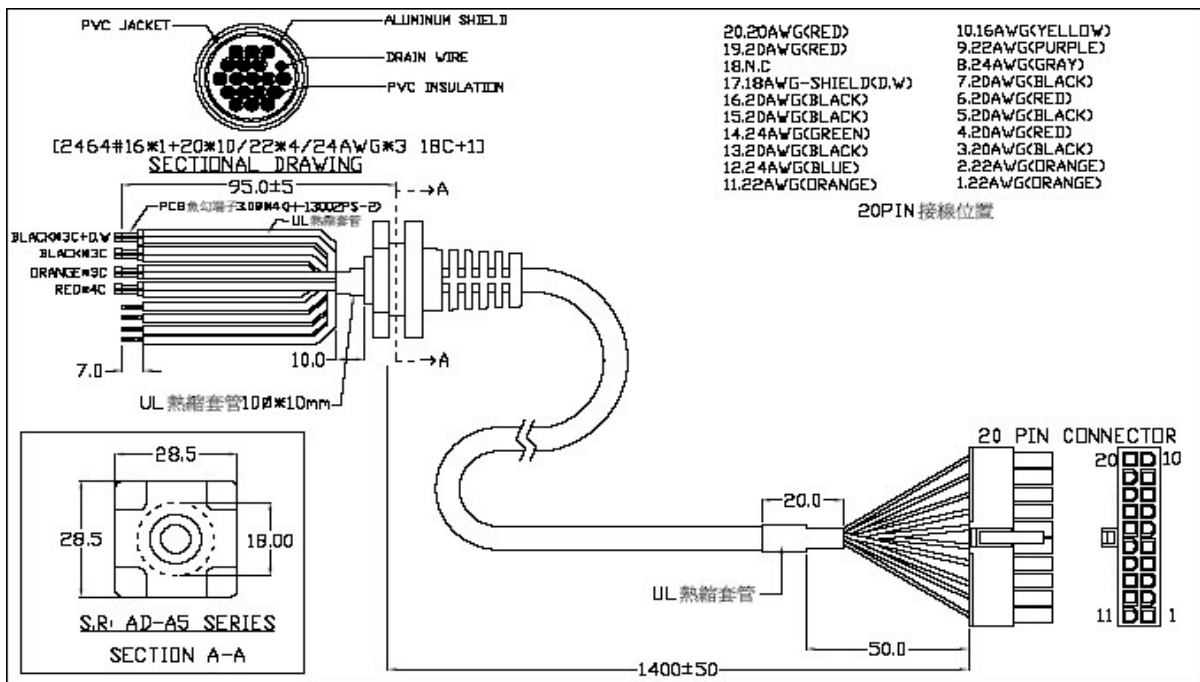
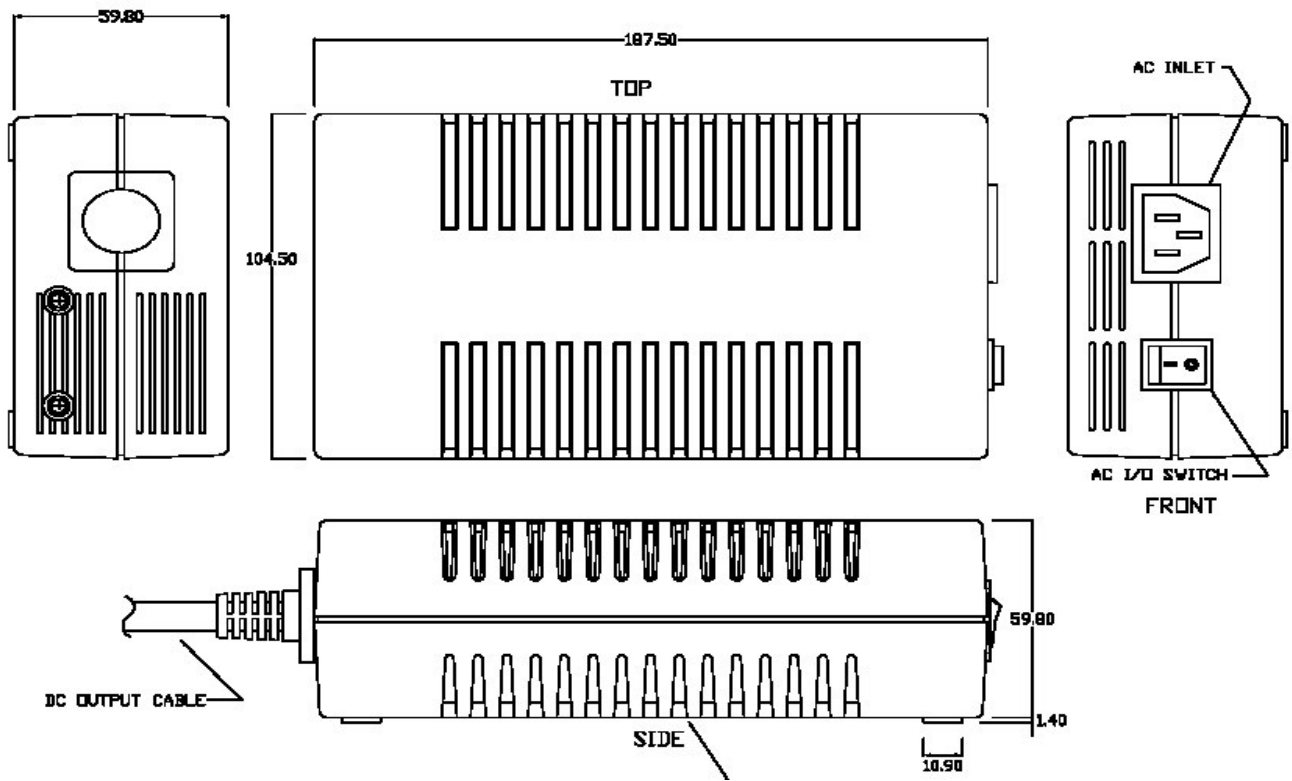
**Safety** Dielectric withstand: Primary to Secondary 3000VAC for 2 seconds.  
Primary to Frame Ground 1500VAC for 2 seconds  
Insulation resistance: Primary to Secondary; 20 Meg. Ohms Min 500VDC  
Primary to Frame Ground 20Meg. Ohms Min. 500VDC

UL 1950 CSA 22.2-234 TUV EN60950 IEC 950 CE: EMC & LVD

**Electromagnetic Compatibility** Test for conformance to this requirement will be performed with the host system. The adapter shall comply to FCC rules and regulations Part 15, Subpart J. 'Class B' limits. The adapter shall conform to the 'Class B' requirement of EN55022 & EN55024 for EMS.

**Reliability** Operating temperature: 0deg C to +40deg C. Relative Humidity 10-90%. Non-condensing.  
Storage temperature: -10deg C to +70deg C. Relative humidity -95% Non-condensing.  
MTBF: 1050,000 hrs minimum at maximum load for 25 deg C ambient temperature.  
Burn-in test: 100% burn-in tested at maximum load under 40 +/-5 deg C

**Mechanical Dimensions** 187(L) x 105(W) x 60Hmm  
Input connector IEC320-C13. On/Off switch. Output connector as cable assembly below



# PCB Mechanical Drawing

Height of Components 53mm

