

## WATT POWER SOLUTIONS

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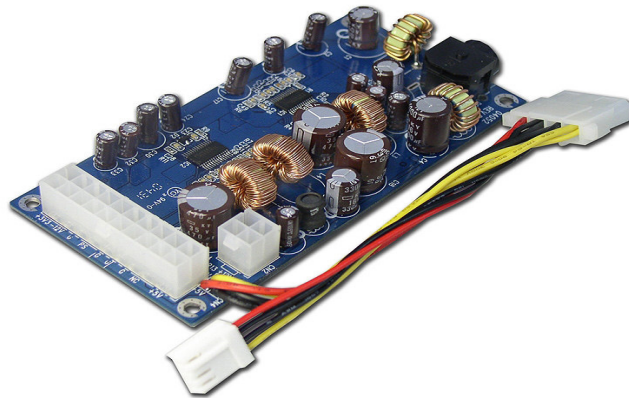
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VAT Reg No: 776 3065 10



## WPPS120 Mini-ATX Data Sheet



The WPPS120 Mini-ATX is a true five output 120W DC-DC converter with an ITX form factor. Meets all worldwide safety requirements and electromagnetic compatibility as required by ITX power supplies. 120(L) x 60(W) x 22(H)mm. 4 corner M3 screw pcb mounting holes. 4 pin Kycon Power Din input connector. 20-way output connector. Optional 20 way output cable provides 2 x Hard Disc drives and 2 x Floppy Disc drives.

**Input Voltage** 18V DC to 28V DC.

**Efficiency** 85%

### Output Characteristics

Nom Voltage	Regulation	O/P Current min	O/P Current max	Ripple and Noise
+3.3V	+/- 5%	0A	5.0A	50mV
+5V	+/- 5%	0A	6.0A	60mV
+12V	+/- 5%	0A	5.0A	120mV
+5Vsb	+/- 5%	0A	2.5A	60mV
-12V	+/- 5%	0A	0.1A	120mV

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

Regulation shows the % of absolute value of nominal output voltage. Total output power should be 80W maximum.

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
+5V DC	+5.6V DC	+6.5V DC

The power supply will not be automatically recovered after the over voltage fault being removed. A manual power reset is necessary.

### 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

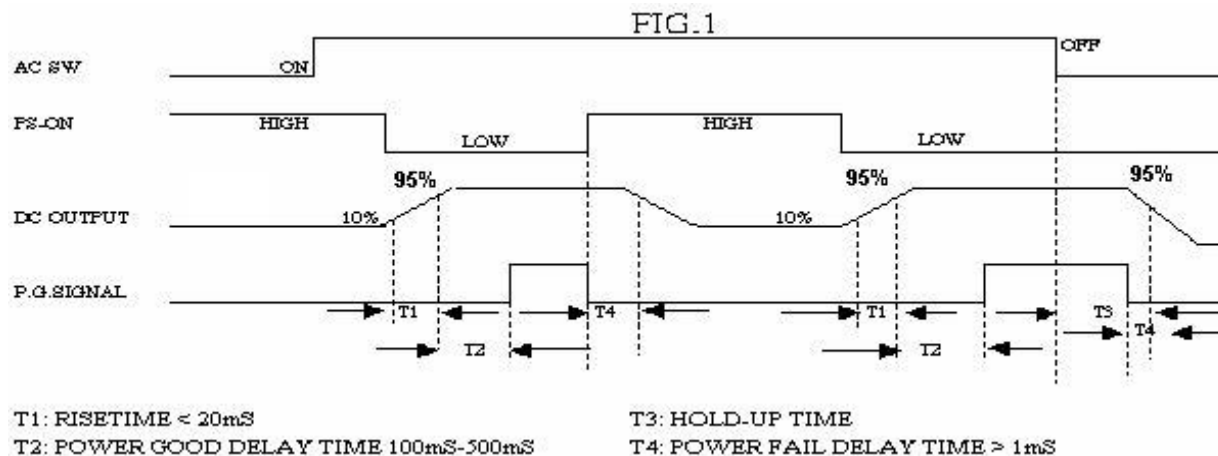
An over load protection will be effected when either of the loadings: +3.3V and +5V exceeds +110% to 160%. The power supply will not automatically recover after the over load is removed. A manual reset is necessary.

### 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; CSA - CSA C22.2 No.60950; TUV - EN60950; CB - IECV60950

### 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 & EN55024 for EMS.

### Environment

Operating Temperature 0-40 degrees C.

Relative Humidity 10-90%, non-condensing.

### Shipping and Storage

Temperature range -40 to +70 degrees C

Relative Humidity 5 to 95%, non-condensing.

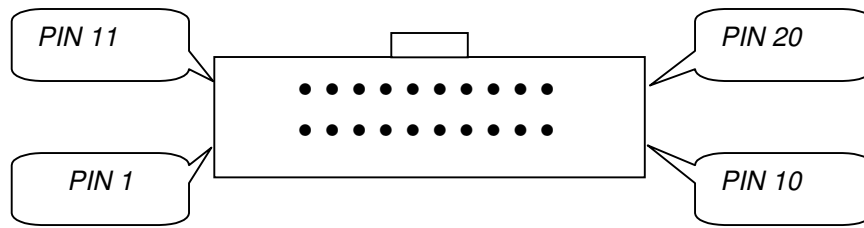
### Burn-In Test

100% burn-in tested at maximum load under 40 degrees C (+/-5 degrees C).

### Reliability

MFBF: 50,000 hours minimum. Maximum load, at 25 degrees C ambient temperature.

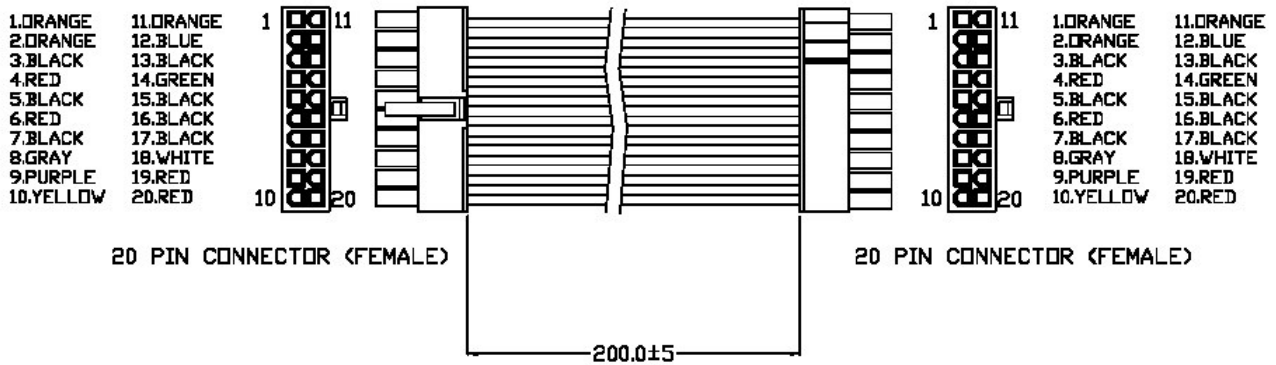
**Pin assignment Flex ATX main power supply connector**



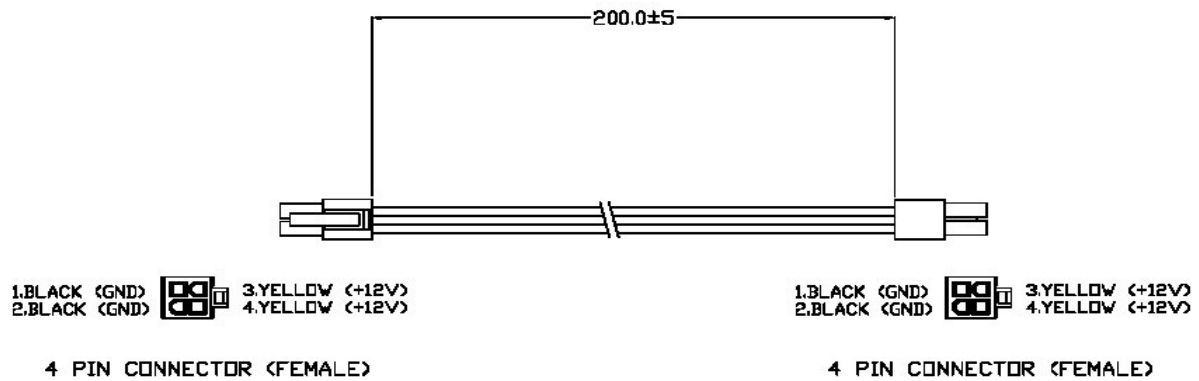
Pin	Signal	Wire	
1	+3.3 VDC	Orange	20AWG
2	+3.3 VDC	Orange	20AWG
3	COM	Black	20AWG
4	+5 VDC	Red	20AWG
5	COM	Black	20AWG
6	+5 VDC	Red	20AWG
7	COM	Black	20AWG
8	POK	Grey	22AWG
9	+5 VSB	Purple	22AWG
10	+12 VDC	Yellow	20AWG

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

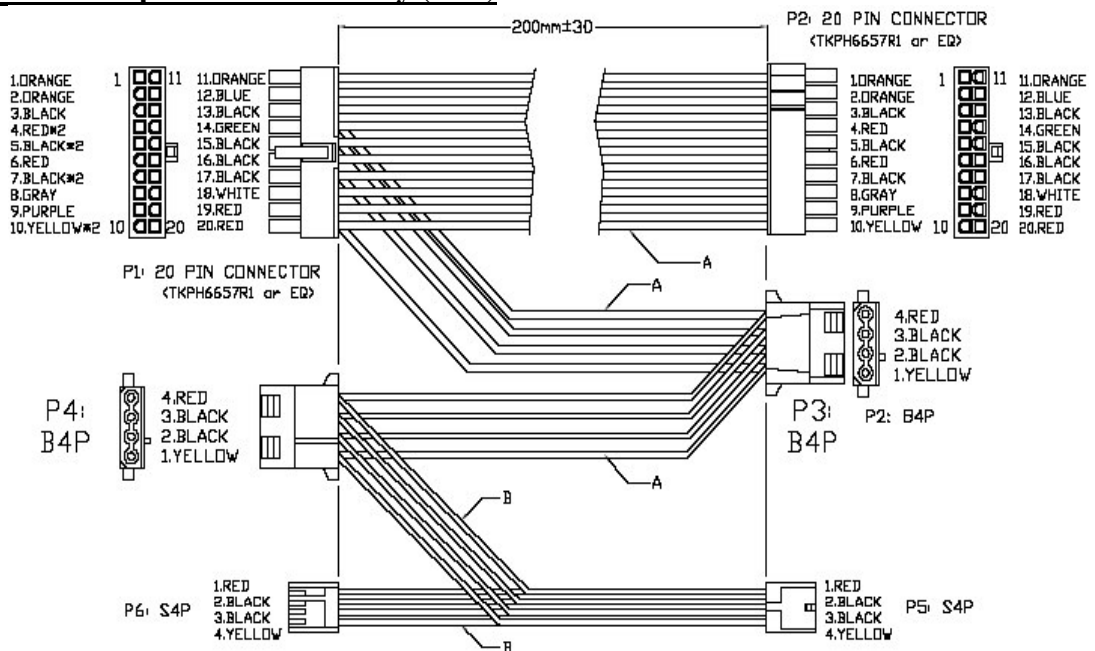
## WPPS120 DC1 Output Cable Assembly (X39)



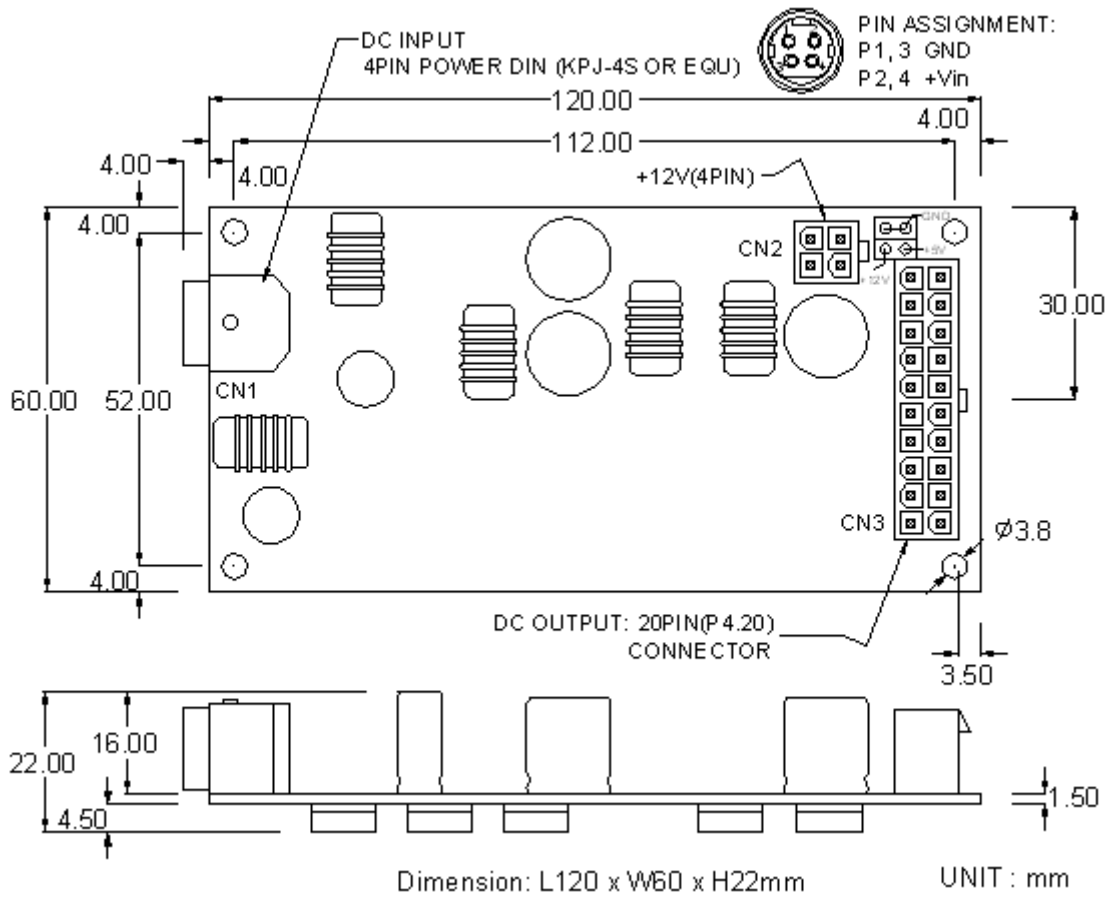
## WPPS120 DC2 Output Cable Assembly (X38)



## WPPS120 DC3 Output Cable Assembly (X74)



**MECHANICAL SPECIFICATION**



**MATCHING CONNECTORS**

DC INPUT (CN1) SOCKET = Kycon KPJ-4S (OR EQUIVALENT) ; PLUG = Kycon KPP-4P (OR EQUIVALENT)  
 DC OUTPUT (CN2) = MOLEX P/N: 39-28-1043 (OR EQUIVALENT) FEMALE HOUSING MOLEX P/N: 39-01-2040 (OR EQUIVALENT)  
 DC OUTPUT (CN3) = MOLEX P/N: 39-28-1203 (OR EQUIVALENT) FEMALE HOUSING MOLEX P/N: 39-01-2200 (OR EQUIVALENT)