

**RWS1000B**

A273-01-01A

## SPECIFICATIONS(1/2)

| ITEMS |                         | MODEL                               | RWS1000B-12 | RWS1000B-15   | RWS1000B-24 | RWS1000B-36 | RWS1000B-48 |             |
|-------|-------------------------|-------------------------------------|-------------|---|-------------|-------------|-------------|-------------|
| 1     | Nominal Output Voltage  | V                                   | 12          | 15  | 24          | 36          | 48          |             |
| 2     | Maximum Output Current  | A                                   | 84          | 67  | 42          | 28          | 21          |             |
| 3     | Maximum Output Power    | W                                   | 1008        | 1005  | 1008        | 1008        | 1008        |             |
| 4     | Efficiency (Typ)        | 100/115VAC                          | %           | 81/82   | 81/82       | 84/85       | 84/85       |             |
|       | (*13)                   | 200/230VAC                          | %           | 85/85   | 85/85       | 88/88       | 88/88       |             |
| 5     | Input Voltage Range     | (*) <sup>(11)</sup>                 | -           | 85 - 265VAC (47 - 63Hz) or 120 - 340VDC   |             |             |             |             |
| 6     | Input Current (Typ)     | 100/115VAC                          | A           | 13 / 11   |             |             |             |             |
|       |                         | (*) <sup>(13)</sup>                 | 200/230VAC  | A   | 7 / 5.5     |             |             |             |
| 7     | Inrush Current (Typ)    | (*) <sup>(3)</sup>                  | -           | 20A / 40A at 1st Inrush , 60A / 60A at 2nd Inrush   |             |             |             |             |
| 8     | PFHC                    |                                     | -           | Designed to meet IEC61000-3-2   |             |             |             |             |
| 9     | Power Factor (Typ)      | (*) <sup>(1)</sup>                  | -           | 0.98/0.95   |             |             |             |             |
| 10    | Output Voltage Range    | V                                   | 10.2 - 13.8 | 12.8 - 17.2   | 20.4 - 27.6 | 30.6 - 41.4 | 40.8 - 52.8 |             |
| 11    | Maximum Ripple & Noise  | 0≤Ta≤60°C                           | mV          | 150   | 150         | 180         | 250         | 300         |
|       |                         | (*) <sup>(4)</sup>                  | -20≤Ta<0°C  | mV  | 180         | 180         | 200         | 300         |
| 12    | Maximum Line Regulation | (*) <sup>(5)</sup> <sup>(11)</sup>  | mV          | 48  | 60          | 96          | 144         | 192         |
| 13    | Maximum Load Regulation | (*) <sup>(6)</sup> <sup>(11)</sup>  | mV          | 96  | 120         | 144         | 216         | 288         |
| 14    | Temperature Coefficient |                                     | -           | Less than 0.02% / °C  |             |             |             |             |
| 15    | Over Current Protection | (*) <sup>(7)</sup>                  | A           | 88.2 -  | 70.4 -      | 44.1 -      | 29.4 -      | 22.1 -      |
| 16    | Over Voltage Protection | (*) <sup>(8)</sup>                  | V           | 14.4 - 17.4   | 18.0 - 21.8 | 28.8 - 34.8 | 43.2 - 52.2 | 55.2 - 60.0 |
| 17    | Hold-up Time (Typ)      | (*) <sup>(1)</sup>                  | -           | 20ms  |             |             |             |             |
| 18    | Leakage Current         | (*) <sup>(9)</sup>                  | -           | Less than 1.2mA   |             |             |             |             |
| 19    | Remote Sensing          | (*) <sup>(14)</sup>                 | -           | Possible  |             |             |             |             |
| 20    | Monitoring Signal       | (*) <sup>(14)</sup>                 | -           | Option  |             |             |             |             |
| 21    | Remote Control          | (*) <sup>(14)</sup>                 | -           | Option  |             |             |             |             |
| 22    | Parallel Operation      | (*) <sup>(14)</sup>                 | -           | Option  |             |             |             |             |
| 23    | Series Operation        | (*) <sup>(14)</sup>                 | -           | Possible  |             |             |             |             |
| 24    | Operating Temperature   | (*) <sup>(10)</sup> <sup>(11)</sup> | -           | -20 - +60°C (-20 - +50°C:100%, +60°C:60%)   |             |             |             |             |
| 25    | Operating Humidity      |                                     | -           | 20 - 90%RH (No Condensing)  |             |             |             |             |
| 26    | Storage Temperature     |                                     | -           | -30 - +75°C   |             |             |             |             |
| 27    | Storage Humidity        |                                     | -           | 10 - 90%RH (No Condensing)  |             |             |             |             |
| 28    | Cooling                 |                                     | -           | Forced Air Cooling  |             |             |             |             |
| 29    | Withstand Voltage       |                                     | -           | Input - FG : 2kVAC (20mA), Input - Output : 4kVAC (20mA)<br>Output - FG : 1.5kVAC (20mA) for 1min |             |             |             |             |
| 30    | Isolation Resistance    |                                     | -           | More than 100MΩ at 25°C and 70%RH Output to Chassis : 500VDC                                      |             |             |             |             |
| 31    | Vibration               |                                     | -           | At no operating, 10 - 55Hz (Sweep for 1min)<br>19.6m/s <sup>2</sup> Constant, X,Y,Z 1hour each.   |             |             |             |             |
| 32    | Shock                   |                                     | -           | Less than 196m/s <sup>2</sup>   |             |             |             |             |
| 33    | Safety                  |                                     | -           | Approved by UL60950-1, CSA60950-1, EN60950-1.<br>Designed to meet Den-an Appendix 12 (J60950-1).  |             |             |             |             |
| 34    | Line DIP                |                                     | -           | Designed to meet SEMI-F47 (200VAC Line only)  |             |             |             |             |
| 35    | Conducted Emission      | (*) <sup>(12)</sup>                 | -           | Designed to meet EN55011/EN55032-B, FCC-B, VCCI-B   |             |             |             |             |
| 36    | Radiated Emission       | (*) <sup>(12)</sup>                 | -           | Designed to meet EN55011/EN55032-B, FCC-B, VCCI-B   |             |             |             |             |
| 37    | Immunity                | (*) <sup>(12)</sup>                 | -           | Designed to meet IEC61000-6-2 IEC61000-4-2, -3, -4, -5, -6, -8, -11                               |             |             |             |             |
| 38    | Weight (Typ)            |                                     | g           | 2000  |             |             |             |             |
| 39    | Size (W x H x D)        |                                     | mm          | 127 x 63 x 198 ( Refer to Outline Drawing )   |             |             |             |             |

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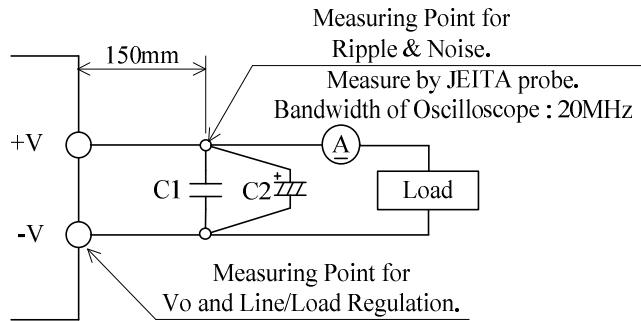
## SPECIFICATIONS(2/2)

\*Read instruction manual carefully, before using the power supply unit.

## =NOTES=

- \*1. At 100VAC/200VAC, Ta=25°C, nominal output voltage and maximum output power.
- \*2. For cases where conformance to various safety specs (UL, CSA, EN) are required, to be described as 100 - 240VAC(50-60Hz).
- \*3. Not applicable for the in-rush current to Noise Filter for less than 0.2ms.
- \*4. Please refer to Fig. A for measurement of Vo, line & load regulation and ripple voltage.
- \*5. 85 - 265VAC, constant load.
- \*6. No load-Full load, constant input voltage.
- \*7. Constant current limit with automatic recovery. Over current condition for more than 5 seconds will cause the output to shut down. Avoid to operate at over load or short circuit condition.
- \*8. OVP circuit will shut down output, manual reset (Re power on).
- \*9. Measured by the each measuring method of UL, CSA, EN and Den-an(at 60Hz), Ta=25°C.
- \*10. Output Derating
  - Refer to LOAD vs. AMBIENT TEMPERATURE(A273-01-02\_).
  - Load (%) is percent of maximum output power or maximum output current, do not exceed its derating of maximum load.
- \*11. Output derating needed when input voltage less than 90VAC. Refer to LOAD vs. INPUT VOLTAGE(A273-01-02\_).
- \*12. The power supply is considered a component which will be installed into a final equipment.  
The final equipment should be re-evaluated that it meets EMC directives.
- \*13. Ta=25°C, nominal output voltage and maximum output power.
- \*14. Refer to instruction manual(A273-04-01\_).

Fig.A



C1 : Film Cap. 0.1µF  
C2 : Elect. Cap. 47µF

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## OUTPUT DERATING

A273-01-02

| Ta (°C)   | LOAD (%)     |
|-----------|--------------|
|           | MOUNTING A-D |
| -20 - +50 | 100          |
| 60        | 60           |

| INPUT VOLTAGE (VAC) | LOAD (%) |
|---------------------|----------|
| MOUNTING A-D        |          |
| 85                  | 80       |
| 90 - 265            | 100      |

