

**RWS100B**

SPECIFICATIONS

CA807-01-01D

| ITEMS |                                  | MODEL          | RWS100B<br>-5  | RWS100B<br>-12 | RWS100B<br>-15 | RWS100B<br>-24 | RWS100B<br>-48 |
|-------|----------------------------------|----------------|--|----------------|----------------|----------------|----------------|
| 1     | Nominal Output Voltage           | V              | 5  | 12             | 15             | 24             | 48             |
| 2     | Maximum Output Current           | A              | 14   | 8.5            | 6.8            | 4.5            | 2.1            |
| 3     | Maximum Output Power             | W              | 70   | 102            | 102            | 108            | 100.8          |
| 4     | Efficiency (Typ)<br>(*1)(*11)    | 100/115VAC     | % 77/77.5  | 82/83          | 83/84          | 85/86          | 85/86          |
|       |                                  | 200/230VAC     | % 79/79  | 84/84          | 85/85          | 87/87.5        | 87/87          |
| 5     | Input Voltage Range              | (*2)(*11)      | 85 - 265VAC (47 - 63Hz) or 120 - 370VDC  |                |                |                |                |
| 6     | Input Current (Typ)<br>(*1)(*11) | 100/115VAC     | A 1.0/0.9  | 1.3/1.2        |                |                |                |
|       |                                  | 200/230VAC     | A 0.5/0.45   | 0.7/0.6        |                |                |                |
| 7     | Inrush Current (Typ)             | (*1)(*3)(*11)  | 15A at 100VAC, 30A at 200VAC, Ta=25°C, Cold Start  |                |                |                |                |
| 8     | PFHC                             | -              | Designed to meet IEC61000-3-2  |                |                |                |                |
| 9     | Power Factor (Typ)               | (*1)(*11)      | 0.95 at 100VAC, 0.90 at 200VAC   |                |                |                |                |
| 10    | Output Voltage Range             | V              | 4.50 - 5.75  | 10.8 - 13.8    | 13.5 - 17.25   | 21.6 - 27.6    | 43.2 - 52.8    |
| 11    | Maximum Ripple & Noise<br>(*4)   | 0 ≤ Ta < 70°C  | mV 120   | 150            | 150            | 150            | 200            |
|       |                                  | -20 ≤ Ta < 0°C | mV 160   | 180            | 180            | 180            | 300            |
| 12    | Maximum Line Regulation          | (*5)(*11)      | mV 20  | 48             | 60             | 96             | 192            |
| 13    | Maximum Load Regulation          | (*6)(*11)      | mV 40  | 96             | 120            | 192            | 384            |
| 14    | Temperature Coefficient          | -              | Less than 0.02% / °C   |                |                |                |                |
| 15    | Over Current Protection          | (*7)           | A 14.7 -   | 8.93 -         | 7.14 -         | 4.73 -         | 2.21 -         |
| 16    | Over Voltage Protection          | (*8)           | V 6.0 - 7.0  | 14.4 - 16.8    | 18.0 - 21.0    | 28.8 - 33.6    | 55.2 - 64.8    |
| 17    | Hold-up Time (Typ)               | (*12)          | 20ms   |                |                |                |                |
| 18    | Leakage Current                  | (*9)           | Less than 0.75mA   |                |                |                |                |
| 19    | Parallel Operation               | -              | -  |                |                |                |                |
| 20    | Series Operation                 | -              | Possible   |                |                |                |                |
| 21    | Operating Temperature            | (*10)(*11)     | -20 - +70°C (-20°C: 50%, -10 - +45°C:100%, +70°C:20%)  |                |                |                |                |
| 22    | Operating Humidity               | -              | 30 - 90%RH (No Condensing)   |                |                |                |                |
| 23    | Storage Temperature              | -              | -30 - +75°C  |                |                |                |                |
| 24    | Storage Humidity                 | -              | 10 - 90%RH (No Condensing)   |                |                |                |                |
| 25    | Cooling                          | -              | Convection Cooling   |                |                |                |                |
| 26    | Withstand Voltage                | -              | Input - FG : 2kVAC (20mA), Input - Output : 3kVAC (20mA)<br>Output - FG : 500VAC (100mA) for 1min  |                |                |                |                |
| 27    | Isolation Resistance             | -              | More than 100MΩ at 25°C and 70%RH Output to FG : 500VDC  |                |                |                |                |
| 28    | Vibration                        | -              | At no operating, 10 - 55Hz (Sweep for 1min)<br>19.6m/s <sup>2</sup> Constant, X,Y,Z 1hour each.  |                |                |                |                |
| 29    | Shock                            | -              | Less than 196.1m/s <sup>2</sup>  |                |                |                |                |
| 30    | Safety                           | -              | Approved by UL60950-1, EN60950-1, UL508 (5V,12V,24V), CSA60950-1<br>CSA C22.2 No.107.1-01. (5V,12V,24V).<br>Designed to meet Den-an Appendix 8 at 100VAC only. |                |                |                |                |
| 31    | Line DIP                         | -              | Designed to meet SEMI-F47 (200VAC Line only)   |                |                |                |                |
| 32    | Conducted Emission               | (*13)          | Designed to meet EN55011/EN55022-B, FCC-B, VCCI-B  |                |                |                |                |
| 33    | Radiated Emission                | (*13)          | Designed to meet EN55011/EN55022-B, FCC-B, VCCI-B  |                |                |                |                |
| 34    | Immunity                         | (*13)          | Designed to meet IEC61000-6-2 IEC61000-4-2, -3, -4, -5, -6, -8, -11  |                |                |                |                |
| 35    | Weight (Typ)                     | g              | 400  |                |                |                |                |
| 36    | Size (W x H x D)                 | mm             | 39 x 94 x 108 ( Refer to Outline Drawing )   |                |                |                |                |

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

=NOTES=

\*1. At 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 inrush 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. 5V - 15V model: Constant current limit and hiccup with automatic recovery.  
24V - 48V model: Constant current limit with automatic recovery.

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

- Derating at standard mounting. Refer to LOAD vs. AMBIENT TEMPERATURE (CA807-01-02\_).

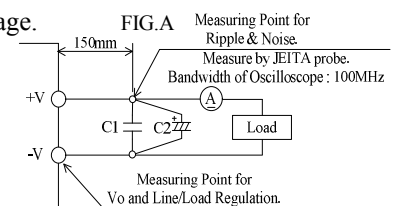
- Load (%) is percent of maximum output power or maximum output current, do not exceed its derating of maximum load.

\*11. Output derating needed when input voltage less than 110VAC. Refer to LOAD vs. INPUT VOLTAGE (CA807-01-02\_).

\*12. At 110VAC/200VAC, Ta=25°C, nominal output voltage and maximum output power.

\*13. 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.



C1 : Film Cap. 0.1μF  
C2 : Elect. Cap. 100μF

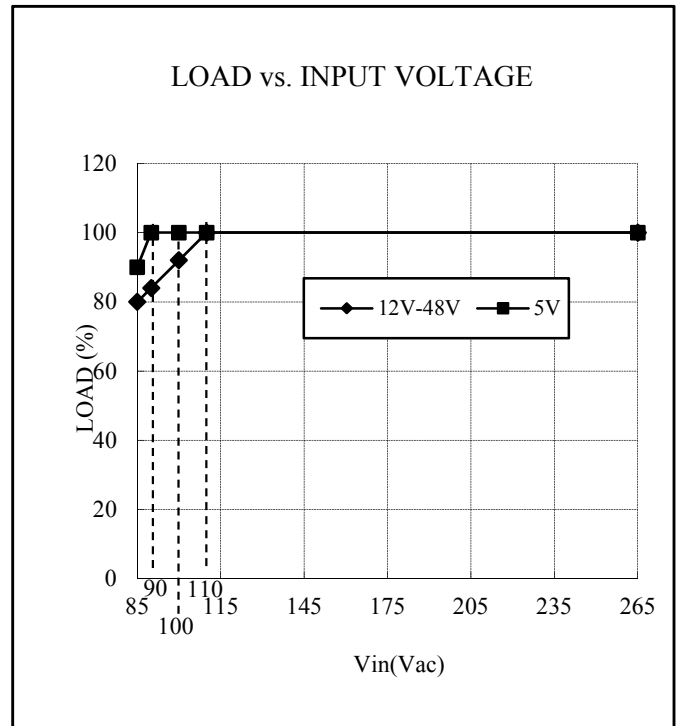
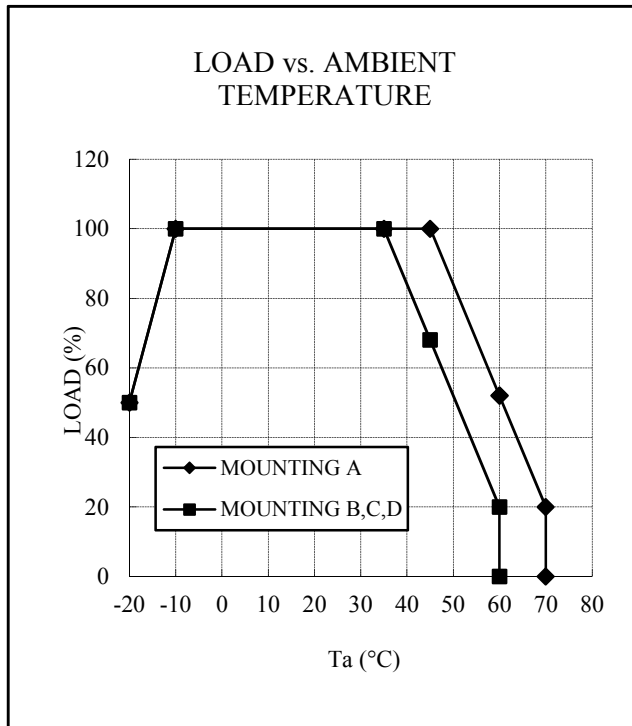
**RWS100B**

OUTPUT DERATING

CA807-01-02A

| Ta (°C)   | LOAD (%)   |                |
|-----------|------------|----------------|
|           | MOUNTING A | MOUNTING B,C,D |
| -20       | 50         | 50             |
| -10 - +35 | 100        | 100            |
| 45        | 100        | 68             |
| 60        | 52         | 20             |
| 70        | 20         | 0              |

| INPUT VOLTAGE (VAC) | LOAD (%) 12V - 48V | LOAD (%) 5V |
|---------------------|--------------------|-------------|
| 85                  | 80                 | 90          |
| 90                  | 84                 | 100         |
| 100                 | 92                 | 100         |
| 110 - 265           | 100                | 100         |



MOUNTING A
MOUNTING B
MOUNTING C
MOUNTING D
DON'T USE

(STANDARD MOUNTING)

