

ZWS15B/CO2

SPECIFICATIONS

CA791-01-01/CO2-A

| ITEMS | | MODEL | ZWS15B -3/CO2 | ZWS15B -5/CO2 | ZWS15B -12/CO2 | ZWS15B -15/CO2 | ZWS15B -24/CO2 | |
|-------|----------------------------------|--------------------------|---|------------------|-------------------|-------------------|-------------------|-----|
| 1 | Nominal Output Voltage | V | 3.3 | 5 | 12 | 15 | 24 | |
| 2 | Maximum Output Current | A | 3.0 | 3.0 | 1.3 | 1.0 | 0.7 | |
| 3 | Maximum Output Power | W | 9.9 | 15.0 | 15.6 | 15.0 | 16.8 | |
| 4 | Efficiency (Typ) (*1) | 100VAC | % | 70 | 76 | 80 | 81 | 82 |
| | | 200VAC | % | 71 | 78 | 83 | 84 | 85 |
| 5 | Input Voltage Range (*2)(*12) | - | 85- 265VAC (47-63Hz) or 120 - 370VDC | | | | | |
| 6 | Input Current (Typ) (*1) | A | 0.24 / 0.15 0.34 / 0.17 | | | | | |
| 7 | Inrush Current (Typ) (*1)(*3) | - | 15A at 100VAC, 30A at 200VAC, Ta=25°C, Cold Start | | | | | |
| 8 | Output Voltage Range | V | 2.97 - 3.63 | 4.5 - 5.5 | 10.8 - 13.2 | 13.5 - 16.5 | 21.6 - 26.4 | |
| 9 | Maximum Ripple & Noise (*4)(*5) | 0≤Ta≤70°C, 35-100% Load | mV | 120 | 120 | 150 | 150 | 150 |
| | | -10≤Ta<0°C, 35-100% Load | mV | 160 | 160 | 180 | 180 | 180 |
| | | -10<Ta<70°C, 0-35% Load | mV | 200 | 200 | 240 | 240 | 240 |
| 10 | Maximum Line Regulation (*4)(*6) | mV | 20 | 20 | 48 | 60 | 96 | |
| 11 | Maximum Load Regulation (*4)(*7) | mV | 40 | 40 | 96 | 120 | 150 | |
| 12 | No Load Power Consumption | - | Typical 0.2W at 100VAC/200VAC, 0.5W Max. | | | | | |
| 13 | Temperature Coefficient (*4) | - | Less than 0.02% / °C | | | | | |
| 14 | Over Current Protection (*8) | A | 3.15 - | 3.15 - | 1.37 - | 1.05 - | 0.74 - | |
| 15 | Over Voltage Protection (*9) | V | 4.00 - 5.25 | 5.75 - 7.00 | 13.8 - 16.2 | 17.3 - 20.3 | 27.6 - 32.4 | |
| 16 | Hold-up Time (Typ) (*1) | - | 20ms | | | | | |
| 17 | Leakage Current (*10) | - | 0.15/0.30mA Max. (100VAC / 230VAC 60Hz) | | | | | |
| 18 | Remote Control | - | - | | | | | |
| 19 | Parallel Operation | - | - | | | | | |
| 20 | Series Operation | - | Possible | | | | | |
| 21 | Operating Temperature (*11) | - | Convection : -10 to +70°C (-10 to +50°C:100%, +60°C:70%, +70°C:40%) | | | | | |
| 22 | Operating Humidity | - | 30 to 90%RH (No Condensing) | | | | | |
| 23 | Storage Temperature | - | -30 to +75°C | | | | | |
| 24 | Storage Humidity | - | 10 to 95%RH (No Condensing) | | | | | |
| 25 | Cooling | - | Convection Cooling | | | | | |
| 26 | Withstand Voltage | - | Input - FG : 2kVAC (10mA), Input - Output : 3kVAC (10mA) Output - FG : 500VAC (20mA) for 1min | | | | | |
| 27 | Isolation Resistance | - | More than 100MΩ at 25°C and 70%RH Output - FG : 500VDC | | | | | |
| 28 | Vibration | - | At no operating, 10 to 55Hz (Sweep for 1min) 19.6m/s ² Constant, X,Y,Z 1hour each. | | | | | |
| 29 | Shock | - | Less than 196.1m/s ² | | | | | |
| 30 | Safety | - | Approved by UL62368-1, CSA62368-1, EN62368-1, UL60950-1, CSA60950-1, EN60950-1 (Expire date of 60950-1 : 20/12/2020), EN50178 (OV II) Designed to meet DENAN at 100VAC only. | | | | | |
| 31 | Conducted Emission | - | Designed to meet EN55011/EN55032-B, FCC-B, VCCI-B | | | | | |
| 32 | Radiated Emission | - | Designed to meet EN55011/EN55032-B, FCC-B, VCCI-B | | | | | |
| 33 | Immunity | - | Designed to meet IEC61000-6-2 IEC61000-4-2, -3, -4, -5, -6, -8, -11 | | | | | |
| 34 | Weight (Typ) | g | 55 | | | | | |
| 35 | Size (W x H x D) | mm | 50 x 22 x 87.5 (Refer to Outline Drawing) | | | | | |

*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. For start up at low ambient temperature and low input voltage, output ripple noise might not meet specification. However, specification can be met after one second.
- *6. 85 - 265VAC, constant load.
- *7. No load-Full load, constant input voltage.
- *8. Current limiting (hiccup) with automatic recovery.
Avoid to operate at over load or short circuit condition for more than 30seconds.
- *9. OVP circuit will shut down output, manual reset (Re power on).
- *10. Measured by the each measuring method of UL, CSA, EN and DENAN (at 60Hz), Ta=25°C.
- *11. Output Deratings
 - Derating at standard mounting. Refer to output derating curve (CA791-01-02).
 - When forced air cooling, refer to derating curve (CA791-01-02).
 - Load (%) is percent of maximum output power or maximum output current, do not exceed its derating of maximum load.
- *12. Output Derating needed when input voltage less than 90VAC. Refer to output derating vs. input voltage (CA791-01-03).

