ZWS15B/FV

SPECIFICATIONS

CA791-01-01/FV-A

	ITEMS / MODEL			ZWS15B -3/FV	ZWS15B -5/FV	ZWS15B -12/FV	ZWS15B -15/FV	ZWS15B -24/FV
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		-	Fixed				
9	Output Voltage Accuracy		V	3.1 - 3.5	4.8 - 5.2	11.5 - 12.5	14.4 - 15.6	23.0 - 25.0
10	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
11	Maximum Line Regulation (*4)(*6)		mV	20	20	48	60	96
12	Maximum Load Regulation (*4)(*7)		mV	40	40	96	120	150
13	No Load Power Consumption		-	Typical 0.2W at 100VAC/200VAC, 0.5W Max				
14	Temperature Coefficient (*4)		-	Less than 0.02% / °C				
15	Over Current Protection (*8)		A	3.15 -	3.15 -	1.37 -	1.05 -	0.74 -
16	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
17	Hold-up Time (Typ) (*1)		-	20ms				
18	Leakage Current (*10)		-	0.15/0.30mA Max. (100VAC / 230VAC 60Hz)				
19	Remote Control		-	-				
20	Parallel Operation		-	-				
21	Series Operation		-	Possible				
22	Operating Temperature (*11)		-	Convection : -10 to +70°C (-10 to +50°C:100%, +60°C:70%, +70°C:40%)				
23	Operating Humidity		-	30 to 90%RH (No Condensing)				
24	Storage Temperature		-	-30 to +75°C				
25	Storage Humidity		-	10 to 95%RH (No Condensing)				
26	Cooling		-	Convection Cooling				
27	Withstand Voltage		-	Input - FG : 2kVAC (10mA), Input - Output : 3kVAC (10mA) Output - FG : 500VAC (20mA) for 1min				
28	Isolation Resistance		-	More than 100MΩ at 25°C and 70%RH Output - FG : 500VDC				
29	Vibration		-	At no operating, 10 - 55Hz (Sweep for 1min) 19.6m/s^2 Constant, X,Y,Z 1hour each.				
30	Shock		-	Less than 196.1m/s^2				
31	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.				
32	Conducted Emission		-	Designed to meet EN55011/EN55032-B, FCC-B, VCCI-B				
33	Radiated Emission		-	Designed to meet EN55011/EN55032-B, FCC-B, VCCI-B				
34	Immunity		-	Designed to meet IEC61000-6-2 IEC61000-4-2, -3, -4, -5, -6, -8, -11				
35	Weight (Typ)		g	55				
36	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.

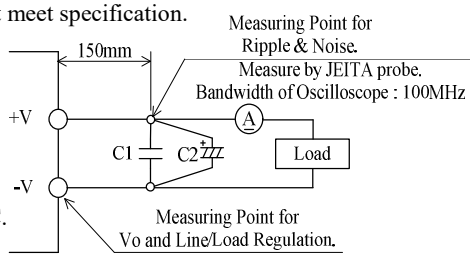
*9. OVP circuit will shut down output , manual reset (Re power on).

*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_).

Fig. A



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