

ZWS30B/FV

SPECIFICATIONS

CA797-01-01/FV-A

ITEMS		MODEL	ZWS30B -3/FV	ZWS30B -5/FV	ZWS30B -12/FV	ZWS30B -15/FV	ZWS30B -24/FV	
1	Nominal Output Voltage	V	3.3	5	12	15	24	
2	Maximum Output Current	A	6.0	6.0	2.5	2.0	1.3	
3	Maximum Output Power	W	19.8	30.0	30.0	30.0	31.2	
4	Efficiency (Typ) (*1)	100VAC	%	75	80	84	85	86
		200VAC	%	77	82	86	87	88
5	Input Voltage Range (*2)(*12)	-	85 - 265VAC(47-63Hz) or 120- 370VDC					
6	Input Current (Typ) (*1)	A	0.5 / 0.3		0.65 / 0.35			
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	6.30 -	6.30 -	2.63 -	2.10 -	1.37 -	
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:20%)					
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	105					
36	Size (W x H x D)	mm	50 x 26 x 105 (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 (CA797-01-02_).
 - When forced air cooling, refer to derating curve (CA797-01-02_).
 - 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 (CA797-01-03_).

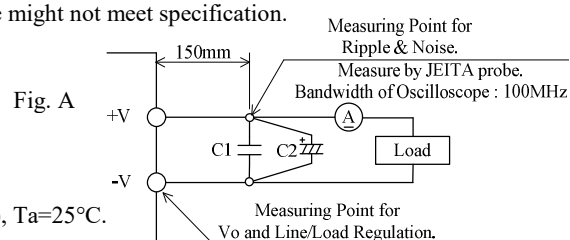


Fig. A

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