

ZWS150PAF/A SPECIFICATIONS

CA723-01-01/A-B

(This specifications sheet also apply to option model /JA, /TA, /SA.)

ITEMS	MODEL	ZWS150PAF-24/A	ZWS150PAF-36/A	ZWS150PAF-48/A		
1	Nominal Output Voltage	V	24	36	48	
2	Maximum Output Current	A	6.3	4.2	3.1	
3	Peak Output Current (* 1)	A	12	8.0	6.0	
4	Maximum Output Power	W	151.2	151.2	148.8	
5	Peak Output Power (* 1)	W	288			
6	Efficiency (Typ) (* 2)	%	82			
7	Input Voltage Range (* 3)	-	85 ~ 265VAC (47-63Hz) or 120 ~ 370VDC			
8	Input Current (100/200VA) (Typ) (* 2)	A	2.0 / 1.0			
9	Inrush Current (Typ) (* 4)	-	14A at 100VAC, 28A at 200VAC, Ta=25°C, Cold Start			
10	PFHC	-	Built to meet EN61000-3-2			
11	Power Factor (100/200VA) (Typ) (* 2)	-				
12	Output Voltage Range	V	21.6 ~ 28.8	32.4 ~ 41.4	43.2 ~ 52.8	
13	Maximum Ripple & Noise (* 5)	0≤Ta≤60°C	mV	240	360	480
		-10≤Ta<0°C	mV	360	540	720
14	Maximum Line Regulation (* 5, 6)	mV	96	144	192	
15	Maximum Load Regulation (* 5, 7)	mV	192	288	384	
16	Temperature Coefficient	-	Less than 0.02%/°C			
17	Over Current Protection (* 8)	A	12.3 ~	8.2 ~	6.1 ~	
18	Over Voltage Protection (* 9)	V	30.0 ~ 35.0	43.2 ~ 50.4	55.2 ~ 64.8	
19	Hold-Up Time (Typ) (* 2)	-	20ms			
20	Leakage current (* 10)	-	0.5mA Max, 0.1mA(Typ) at 100VAC/0.16mA(Typ) at 230VAC			
21	Remote ON/OFF Control	-				
22	Parallel Operation	-				
23	Series Operation	-	Possible			
24	Operating Temperature (* 11)	-	- 10 ~ + 50 °C Convection: -10 ~ +30°C (100%); 40°C (80%); 50°C (65%)			
25	Operating Humidity	-	30 ~ 90 %RH (No dewdrop)			
26	Storage Temperature	-	- 30 ~ +85°C			
27	Storage Humidity	-	10 ~ 95%RH (No dewdrop)			
28	Cooling	-	Convection cooling			
29	Withstand Voltage	-	Input - Output : 3.0kVAC (20mA), Input - FG : 2.0kVAC (20mA) Output - FG : 500VAC (100mA) for 1min.			
30	Isolation Resistance	-	More than 100MΩ at Ta=25°C and 70%RH, Output - FG : 500VDC			
31	Vibration (* 12)	-	At no operating, 10 - 55Hz (sweep for 1min) 19.6m/s ² Constant, X, Y, Z 1hour each			
32	Shock (In package)	-	Less than 196.1m/s ²			
33	Safety (* 13)	-	Approved by UL60950, CSA60950, EN60950, EN50178, Built to meet DENTORI			
34	EMI (* 14)	-	Built to meet VCCI-B, FCC-Class B, EN55011/EN55022-B			
35	Immunity	-	Built to meet EN61000-4-2,-3,-4,-5,-6,-8,-11			
36	Weight (Typ)	g	800			
37	Size (W.H.D.)	mm	90 x51 x 230 (Refer to Outline Drawing)			

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

= NOTES=

* 1 : Operating period at peak output current is less than 10sec. (Duty ≤ 0.35)
(Average output power and current is less than Maximum output power and current)
For peak load derating method, please refer to instruction manual for details.

* 2 : At 100/200VAC and maximum output power, Ta = 25°C.

* 3 : For cases where conformance to various safety specs (UL, CSA, EN) are required, to be described as 100 - 240VAC, 50 / 60Hz on name plate.

* 4 : Not applicable for the in-rush current to Noise Filter for less than 0.2ms.

* 5 : Please refer to Fig A for measurement of line & load regulation and output ripple voltage.
(Measure with JEITA RC-9131 probe)

* 6 : 85 - 265VAC, constant load.

* 7 : No load - Full load(Maximum power), constant input voltage.

* 8 : Constant current limit with automatic recovery. Avoid to operate at overload or dead short for more than 30seconds.

* 9 : OVP circuit will shutdown output, manual reset. (Line recycle)

* 10: Measured by each measuring method of UL, CSA, EN and DENTORI (at 60Hz).

* 11: At standard mounting method, Fig B.

- Load(%) is percent of maximum output load (Item2 and 4), do not exceed derating in both Maximum Output Current and Power.

-For other mountings, refer to derating curve (CA723-01-02/A_)

-When forced air cooling, refer to derating curve(CA723-01-03/A_)

* 12: At standard mounting method, Fig B. Refer to instruction manual for details.

* 13: As for DENTORI, built to meet at 100VAC.

* 14: 85 - 265VAC, No load - Full load, constant load.

Component side

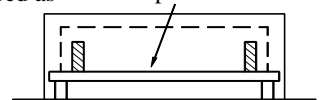
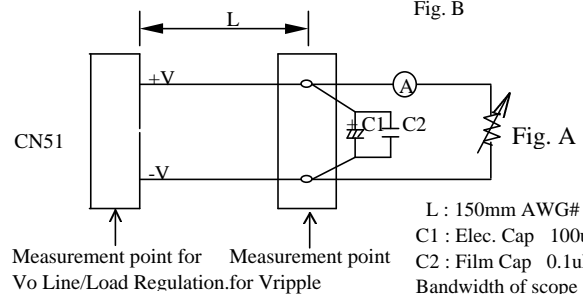


Fig. B



L : 150mm AWG# 18

C1 : Elec. Cap 100µF

C2 : Film Cap 0.1µF

Bandwidth of scope : 100MHz

OUTPUT DERATING

CA723-01-02/A

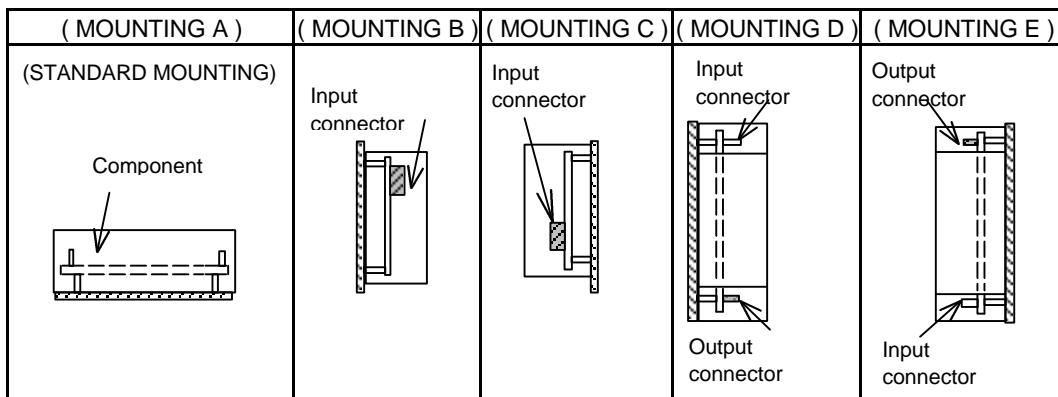
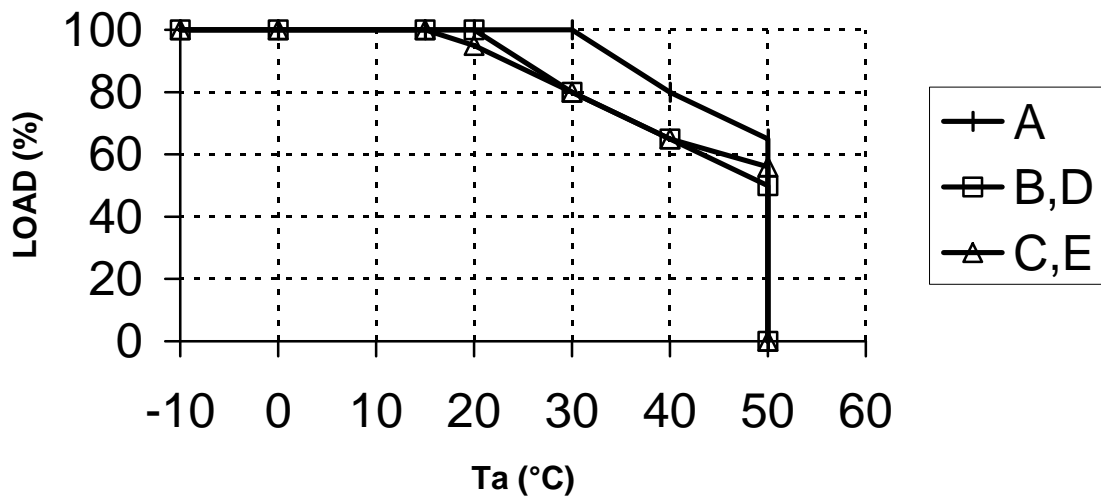
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ZWS150PAF/A

*COOLING: CONVECTION COOLING

Ta (°C)	LOADING CONDITION (%)		
	Mounting A	Mounting B,D	Mounting C,E
-10~15	100	100	100
20	100	100	95
30	100	80	80
40	80	65	65
50	65	50	56

OUTPUT DERATING CURVE



OUTPUT DERATING

CA723-01-03/A

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ZWS150PAF/A

***COOLING: FORCED AIR COOLING**

Ta (°C)	LOADING CONDITION (%)
	Mounting A,B,C,D,E
-10~50	100
60	70

Recommended Minimum Air Velocity:0.7m/s (Measured at component side of power supply, Air must flow through component side.)

OUTPUT DERATING CURVE

