

ZWD150PAF/A SPECIFICATIONS

PA573-01-01/A

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

ITEMS		MODEL	ZWD150PAF-0524/A		
1	Nominal Output Voltage	V	5	24	
2	Maximum Output Current	A	5	6	
3	Peak Output Current (100/200VAC)	(* 1) A	-	10 / 12	
4	Total Average Output Power	W	150		
5	Maximum Peak Output Power	(* 1) W	-	240 / 288	
6	Total Peak Output Power (100/200VAC)	(* 1) W	246 / 294		
7	Efficiency (100/200VAC)	(Typ) (* 2) %	80 / 82		
8	Input Voltage Range	(* 3) -	85 ~ 265VAC (47-63Hz) or 120 ~ 370VDC		
9	Input Current (100/200VAC)	(Typ) (* 2) A	1.90 / 0.97		
10	Inrush Current	(Typ) (* 4) -	15A at 100VAC, 30A at 200VAC, Ta=25°C, Cold Start		
11	PFHC	-	Built to meet IEC61000-3-2		
12	Power Factor (100/200VAC)	(Typ) (* 2) -	0.99/0.95		
13	Output Voltage Accuracy	(* 2) V	4.9 ~ 5.1	23.52 ~ 24.48	
14	Output Voltage Adjustable Range	V	4.5 ~ 5.5	22.8 ~ 27.6	
15	Maximum Ripple & Noise (* 5)	0≤Ta≤60°C	mV	120	150
		-10≤Ta<0°C	mV	160	180
16	Maximum Line Regulation	(* 5, 6) mV	20	96	
17	Maximum Load Regulation	(* 5, 7) mV	40	150	
18	Temperature Coefficient	-	0.02%/°C		
19	Over Current Protection	(* 8) %	> 105	> 205	
20	Over Voltage Protection	(* 9) %	120 - 145	120 - 145	
21	Hold-Up Time	(Typ) (* 2) ms	40	20	
22	Leakage current	(* 10) mA	0.75 max (Low leakage current option available --> /FG. Refer to application note).		
23	Remote ON/OFF Control	-	-	Possible	
24	Parallel Operation	-	Not possible		
25	Series Operation	-	Not possible		
26	Operating Temperature (* 11)	-	- 10 ~ + 60 °C		
		-	Convection: -10 ~ +40°C : 100%, +50°C : 50%, +60°C : 0%		
27	Operating Humidity	-	20 ~ 90 %RH (No dewdrop)		
28	Storage Temperature	-	- 30 ~ +85°C		
29	Storage Humidity	-	10 ~ 95%RH (No dewdrop)		
30	Cooling	-	Convection cooling		
31	Withstand Voltage	-	Input - Output : 3.0kVAC (20mA), Input - FG : 2.0kVAC (20mA) Output - FG : 500VAC (100mA) for 1min.		
32	Isolation Resistance	-	More than 100MΩ at Ta=25°C and 70%RH, Output - FG : 500VDC		
33	Vibration (Non-Operating)	-	10 - 55Hz ( sweep for 1min )		
		-	Less than 19.6m/s <sup>2</sup> Constant, X, Y, Z 1hour each		
34	Shock (In package)	-	Less than 196.1m/s <sup>2</sup>		
35	Safety	-	UL60950, EN60950, CSA60950, EN50178, Built to meet DEN-AN		
36	EMI	-	Complies with FCC-B, CISPR22-B, EN55022-B, VCCI-B		
37	Immunity	-	Built to meet EN61000-4-2,-3,-4,-5,-6,-8,-11		
38	Weight (Typ)	g	885		
39	Size ( W.H.D.)	mm	95 x 51 x 252 (Refer to Outline Drawing)		

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

= NOTES=

\* 1 : Operating period at peak output current (i) 6~10A: less than 10sec; Duty≤ 0.35 (ii) 10~12A: less than 5sec; Duty ≤ 0.20.

(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 total average 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 normal probe)

\* 6 : 85 - 132VAC and 170 - 265VAC, constant load.

\* 7 : No load - Full load, constant input voltage.

\* 8 : Current limiting 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)  
(OVP for V1, V1 & V2 shutdown, OVP for V2, only V2 shutdown)

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

\*11: At standard mounting method, Fig B.

- Load(%) is percent of maximum output load ( Item 2 and 4 ), do not exceed derating in both Maximum Output Current and Power.
- For other mountings, refer to derating curve PA573-01-02/A\_
- When forced air cooling, refer to derating curve PA573-01-03/A\_

Component side

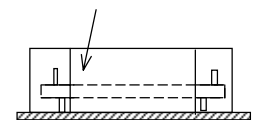
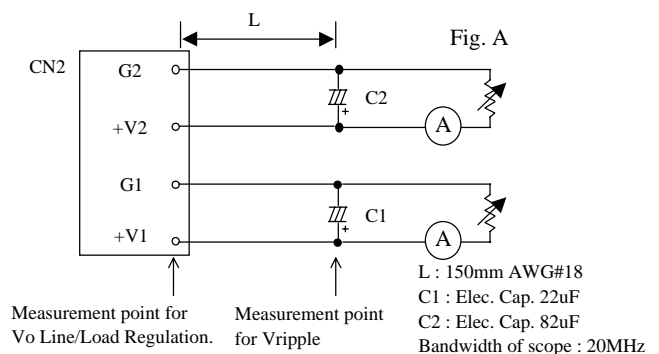


Fig. B



**OUTPUT DERATING**

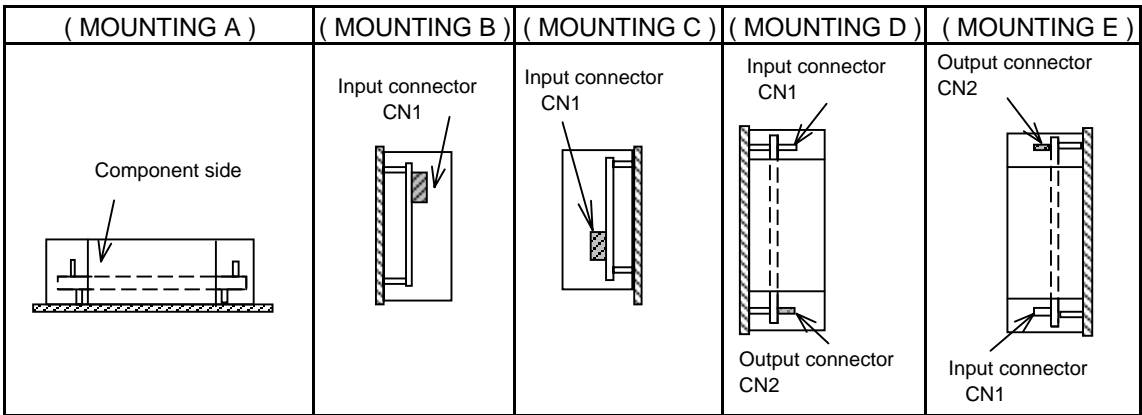
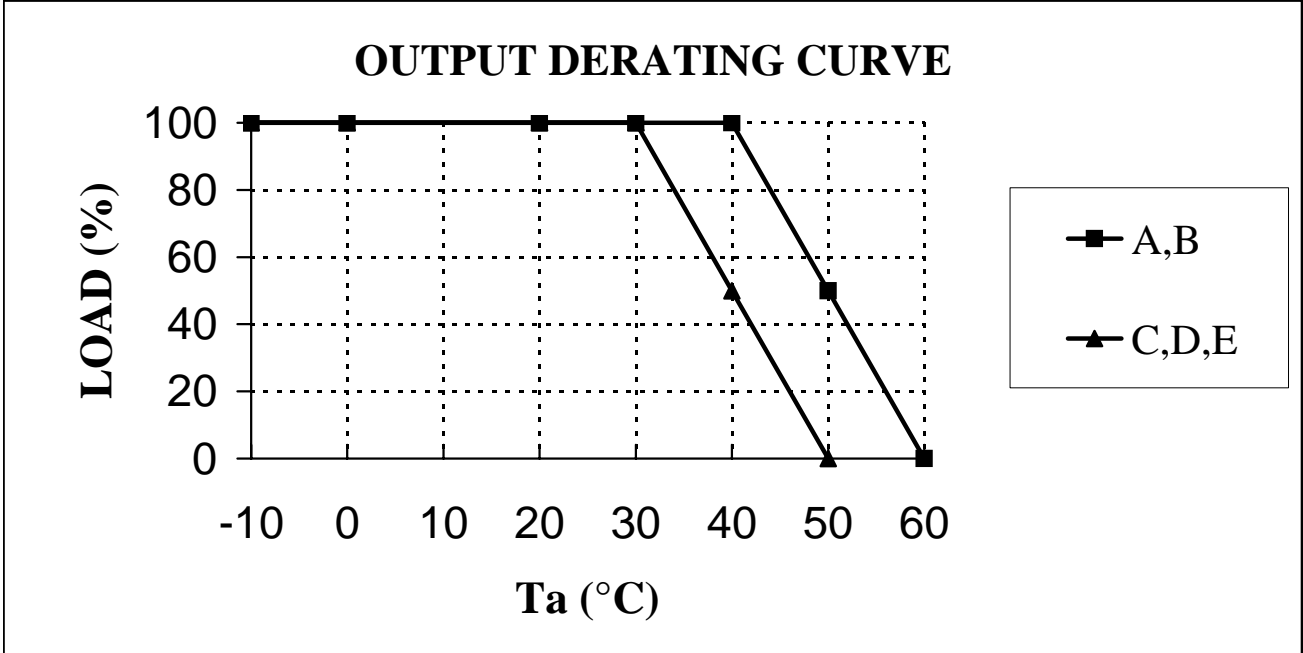
PA573-01-02/A

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**ZWD150PAF-0524/A**

\*COOLING: CONVECTION COOLING

Ta (°C)	LOADING CONDITION(%)	
	Mounting A,B	Mounting C,D,E
-10~30	100	100
40	100	50
50	50	0
60	0	-



**OUTPUT DERATING**

PA573-01-03/A

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**ZWD150PAF-0524/A**

\*COOLING: FORCED AIR COOLING

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

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

