

ZWD150PAF SPECIFICATIONS

PA573-01-01B

(This specifications sheet also apply to option model /J, /T.)

ITEMS		MODEL	ZWD150PAF-0524		
			V1	V2	
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	-	Designed 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≤70°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 - + 70 °C Convection: -10 - +50°C : 100%, +60°C : 50%, +70°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	-	Approved by UL62368-1, CSA62368-1, EN62368-1, UL60950-1, CSA60950-1, EN60950-1 (Expire date of 60950-1 : 20/12/2020), EN50178, Designed to meet DEN-AN at 100VAC only		
36	EMI	-	Complies with FCC-B, CISPR22-B, EN55032-B, VCCI-B		
37	Immunity	-	Designed to meet EN61000-4-2,-3,-4,-5,-6,-8,-11		
38	Weight (Typ)	g	530		
39	Size ( W.H.D.)	mm	85 x 40 x 222 (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\_

-When forced air cooling, refer to derating curve PA573-01-03\_

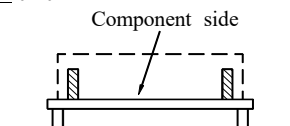
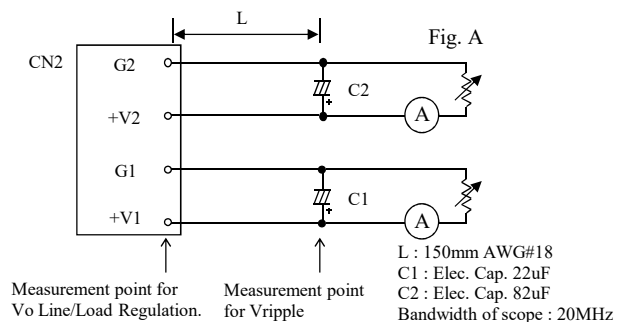


Fig. B



L : 150mm AWG#18  
C1 : Elec. Cap. 22uF  
C2 : Elec. Cap. 82uF  
Bandwidth of scope : 20MHz

**OUTPUT DERATING**

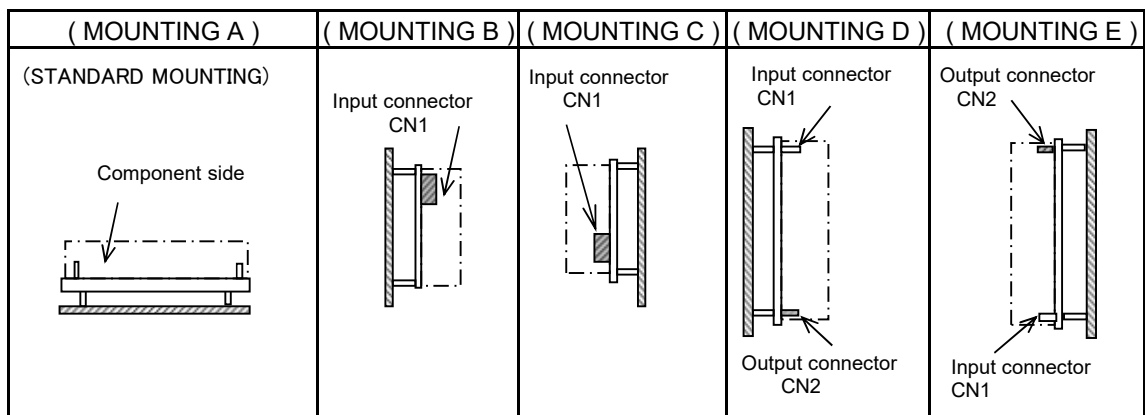
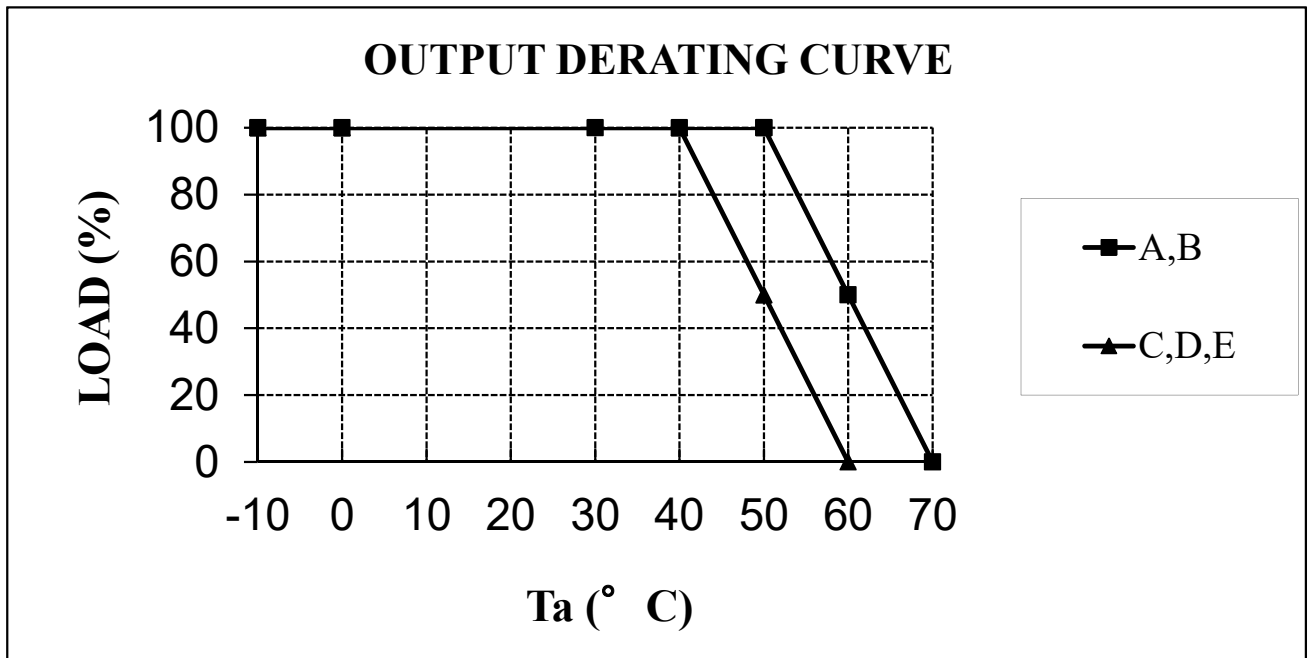
PA573-01-02

(This specifications sheet also apply to option model /J, /T.)

**ZWD150PAF-0524**

\*COOLING: CONVECTION COOLING

Ta (°C)	LOADING CONDITION(%)	
	Mounting A,B	Mounting C,D,E
-10~40	100	100
50	100	50
60	50	0
70	0	-



**OUTPUT DERATING**

PA573-01-03

(This specifications sheet also apply to option model /J, /T.)

**ZWD150PAF-0524**

**\*COOLING: FORCED AIR COOLING**

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

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

