

ZWD150PAF SPECIFICATIONS

PA573-01-01

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

| ITEMS | | MODEL | ZWD150PAF-0524 | | |
|-------|--------------------------------------|------------------|--|---------------|-----|
| 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 | 0≤Ta≤70°C | mV | 120 | 150 |
| | | (* 5) -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 ² Constant, X, Y, Z 1hour each | | |
| 34 | Shock (In package) | - | Less than 196.1m/s ² | | |
| 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 | 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_

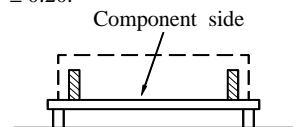
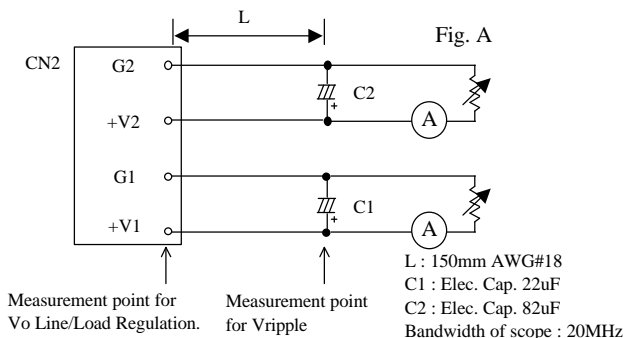


Fig. B



OUTPUT DERATING

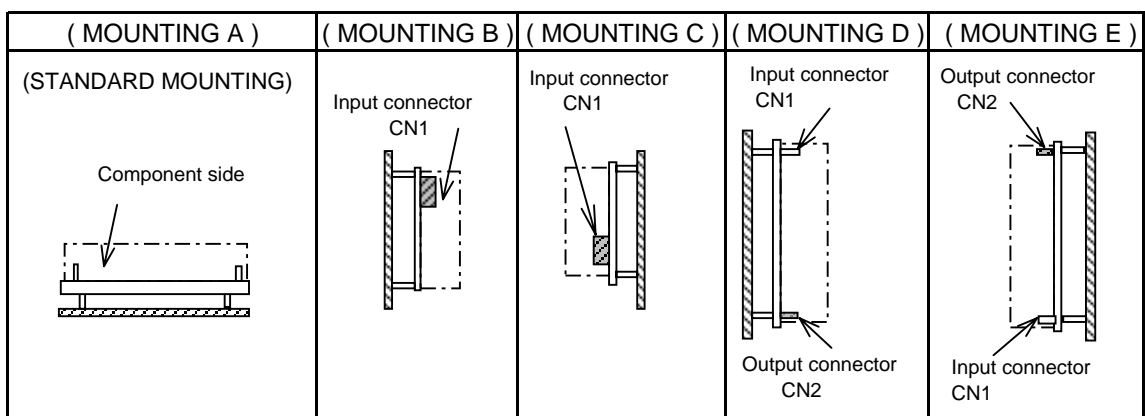
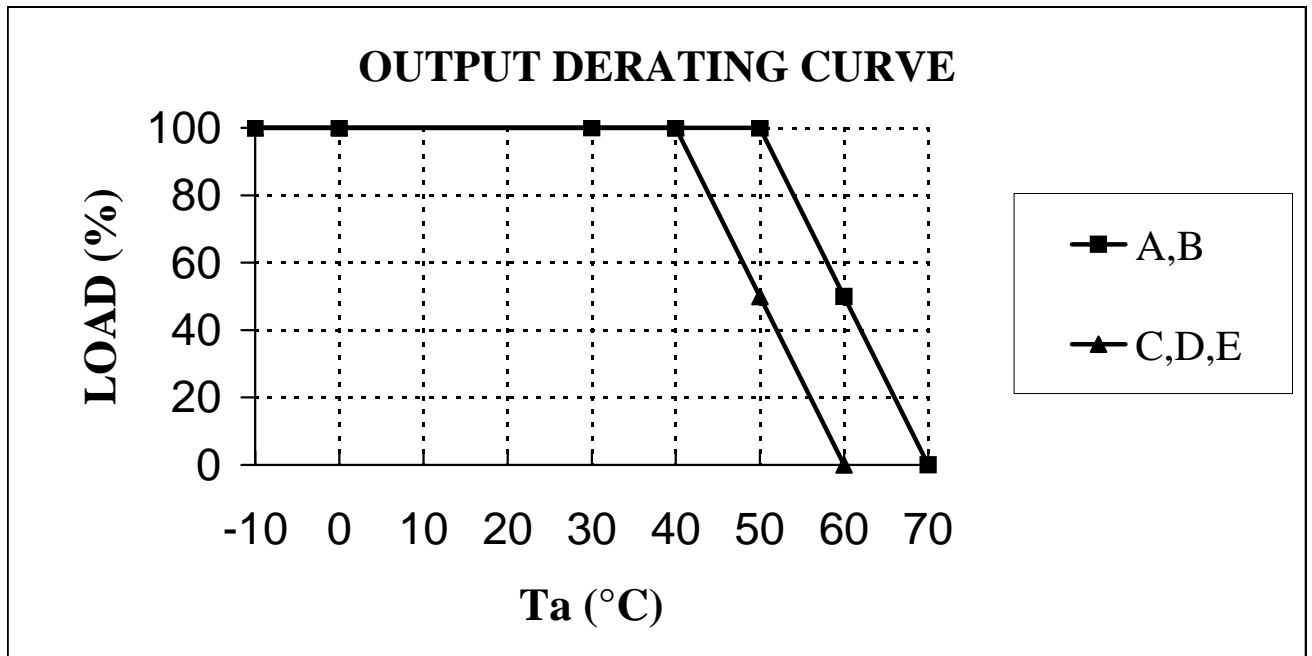
PA573-01-02

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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

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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.)

