ZWS150BAF

SPECIFICATIONS

A250-01-01A

	ITEMS / MODEL			ZWS150BAF -3	ZWS150BAF -5	ZWS150BAF -12	ZWS150BAF -15	ZWS150BAF -24	ZWS150BAF -48
1	Nominal Output Voltage		V	3.3	5	12	15	24	48
2	Maximum Output Current		A	30	30	12.5	10.0	6.3	3.2
3	Maximum Output Power		W	99.0	150.0	150.0	150.0	151.2	153.6
4	Efficiency (Typ) (*1)	100VAC	%	82	85	85	86	88	89
		200VAC	%	84	87	88	89	90	91
5	Input Voltage Range (*2)		-	85 - 265VAC (47 - 63Hz) or 120 - 370VDC					
6	Input Current (Typ) (*1)		A	1.3/0.65	1.9/0.95				
7	Inrush Current (Typ) (*1)(*3)		-	14A at 100VAC, 28A at 200VAC, Ta=25°C, Cold Start					
8	PFHC		-	Designed to meet IEC61000-3-2					
9	Power Factor (Typ) (*1)		-	0.96/0.89	0.98/0.93				
10	Output Voltage Range		V	2.97 - 3.63	4.5 - 5.5	10.8 - 13.2	13.5 - 16.5	21.6 - 26.4	39.5 - 52.8
11	Maximum Ripple & Noise (*4)	0≤Ta≤70°C	mV	120	120	150	150	150	200
		-10≤Ta<0°C	mV	160	160	180	180	180	240
12	Maximum Line Regulation (*4)(*5)		mV	20	20	48	60	96	192
13	Maximum Load Regulation (*4)(*6)		mV	40	40	96	120	150	240
14	Temperature Coefficient (*4)		-	Less than 0.02% / °C					
15	Over Current Protection (*7)		A	31.5 -	31.5 -	13.13 -	10.5 -	6.62 -	3.36 -
16	Over Voltage Protection (*8)		V	3.79 - 4.95	5.75 - 7.00	13.8 - 16.2	17.3 - 20.3	27.6 - 32.4	55.2 - 64.8
17	Hold-up Time (Typ) (*1)		-	20ms					
18	Leakage Current (*9)		-	Less than 0.5mA. 0.2mA(Typ) at 100VAC / 0.4mA(Typ) at 230VAC					
19	Remote Control		-	Option					
20	Parallel Operation		-	-					
21	Series Operation		-	Possible					
22	Operating Temperature (*10)		-	Convection : -10 - +70°C (-10 - +50°C:100%, +60°C:75%, +70°C:50%)					
23	Operating Humidity		-	30 - 90%RH (No Condensing)					
24	Storage Temperature		-	-30 - +75°C					
25	Storage Humidity		-	10 - 90%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 UL60950-1, CSA60950-1, EN60950-1, EN50178(OV II), Designed to meet DENAN at 100VAC only.					
32	Conducted Emission		-	Designed to meet EN55011/EN55022-B, FCC-B, VCCI-B					
33	Radiated Emission		-	Designed to meet EN55011/EN55022-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	390					
36	Size (W x H x D)		mm	75 x 37 x 160 (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. 85 - 265VAC, constant load.

*6. No load-Full load, constant input voltage.

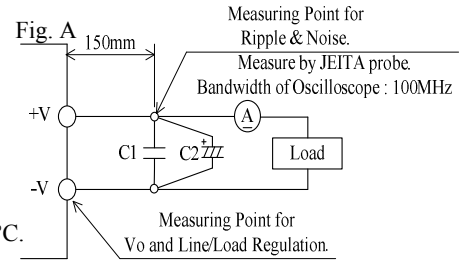
*7. 3.3, 5V model: Constant current limit and hiccup with automatic recovery.
12 - 48V model: Constant current limit with automatic recovery.
Avoid to operate at over load or short circuit condition for more than 30seconds.

*8. OVP circuit will shut down output, manual reset (Re power on).

*9. Measured by the each measuring method of UL, CSA, EN and DENAN(at 60Hz), Ta=25°C.

*10. Output Derating
- Derating at standard mounting. Refer to output derating curve(A250-01-02_).
- When forced air cooling, refer to output derating curve(A250-01-03_).
- Load (%) is percent of maximum output power or maximum output current, whichever is greater.

Fig. A



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

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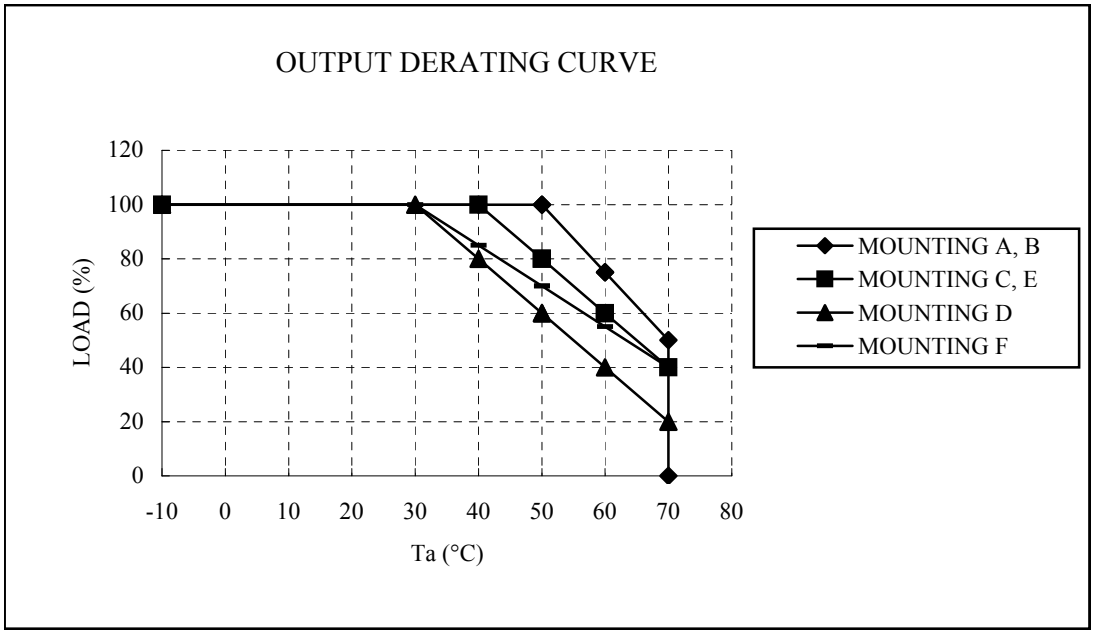
OUTPUT DERATING

A250-01-02

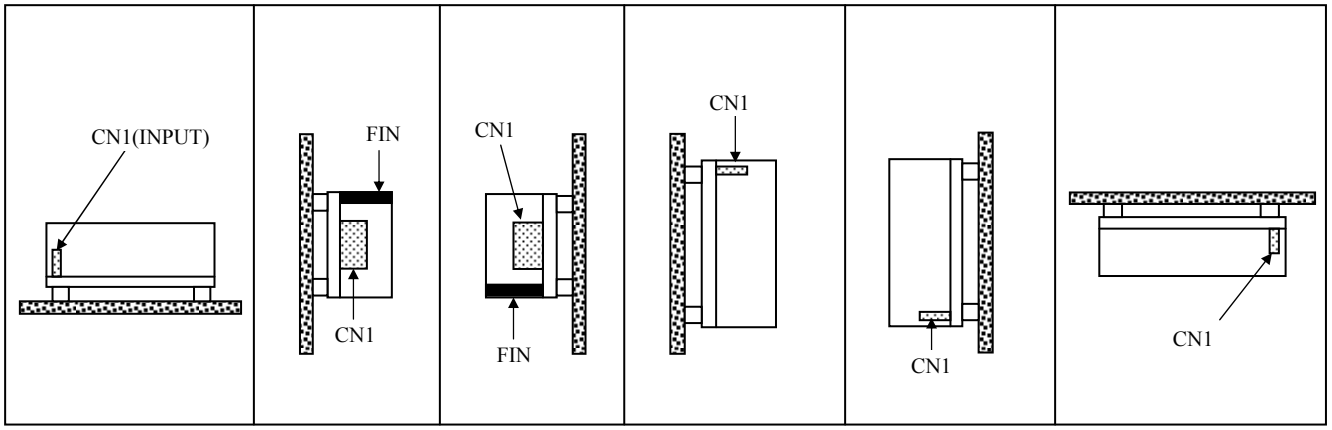
*COOLING : CONVECTION COOLING

Ta (°C)	LOAD (%) MOUNTING A, B	LOAD (%) MOUNTING C, E	LOAD (%) MOUNTING D	LOAD (%) MOUNTING F
-10 - +30	100	100	100	100
40	100	100	80	85
50	100	80	60	70
60	75	60	40	55
70	50	40	20	40



MOUNTING A | MOUNTING B | MOUNTING C | MOUNTING D | MOUNTING E | MOUNTING F

(STANDARD MOUNTING)



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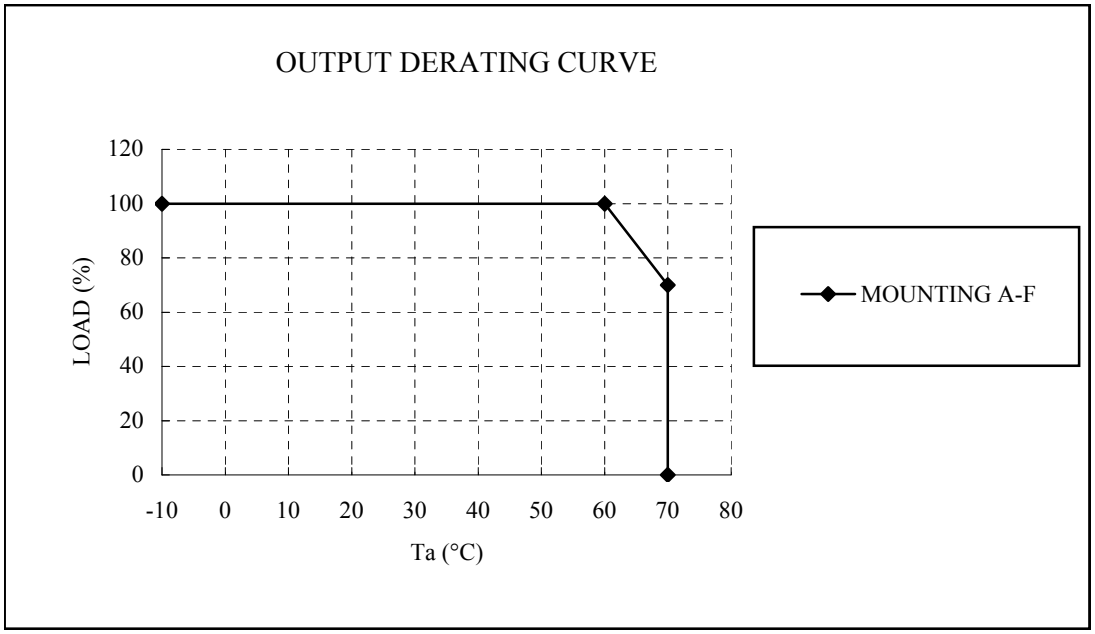
OUTPUT DERATING

A250-01-03A

*COOLING : FORCED AIR COOLING

Ta (°C)	LOAD (%)
	MOUNTING A-F
-10 - +60	100
70	70

Air velocity ≧ 0.7m/s : Air must flow through component side.



MOUNTING A | MOUNTING B | MOUNTING C | MOUNTING D | MOUNTING E | MOUNTING F

(STANDARD MOUNTING)