

ZWS75AF

SPECIFICATIONS

A194-01-01C

MODEL		ZWS75AF	ZWS75AF	ZWS75AF	ZWS75AF		
ITEMS		-5	-12	-15	-24		
1	Nominal Output Voltage	V	5	12	15	24	
2	Maximum Output Current	A	15	6.3	5	3.2	
3	Peak Output Current (*1)	A	-	7.5	6	3.8	
4	Maximum Output Power	W	75	75.6	75	76.8	
5	Peak Output Power (*1)	W	-	90	90	91.2	
6	Efficiency (Typ) (*2)	%	75	78	79	82	
7	Input Voltage Range (*3)	-	85 - 265VAC (47-63Hz) or 120 - 370VDC				
8	Input Current (100/200VAC)(Typ) (*2)	A	1.2/0.6				
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 (100/200VAC)(Typ) (*2)	-	0.99/0.95				
12	Output Voltage Range	V	4.5 - 5.5	10.8 - 13.2	13.5 - 16.5	21.6 - 26.4	
13	Maximum Ripple & Noise (*5)	0 ≤ Ta ≤ 60°C	mV	120	150	150	150
		-10 ≤ Ta < 0°C	mV	160	180	180	180
14	Maximum Line Regulation (*5,*6)	mV	20	48	60	96	
15	Maximum Load Regulation (*5,*7)	mV	40	96	120	150	
16	Temperature Coefficient	-	Less than 0.02%/°C				
17	Over Current Protection (*8)	A	15.7 -	7.88 -	6.25 -	4.00 -	
18	Over Voltage Protection (*9)	V	5.75 - 7.00	13.8 - 16.2	17.3 - 20.3	27.6 - 32.4	
19	Hold-up Time (Typ) (*10)	-	20ms				
20	Leakage Current (*11)	-	0.5mA MAX, 0.1mA(Typ) at 100VAC / 0.16mA(Typ) at 230VAC				
21	Remote ON/OFF Control	-	Possible				
22	Parallel Operation	-	-				
23	Series Operation	-	Possible				
24	Operating Temperature (*12)	-	-10 - +60°C Convection : -10 - +50°C:100%, +60°C:70%				
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 - FG : 2kVAC (20mA), Input - Output : 3kVAC (20mA) Output - FG : 500VAC (100mA) for 1min				
30	Isolation Resistance	-	More than 100MΩ at 25°C and 70%RH Output - FG : 500VDC				
31	Vibration	-	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 UL60950-1, CSA60950-1, EN60950-1, EN50178. Built to meet DENAN				
34	EMI	-	Built to meet EN55011/EN55022-B, FCC-ClassB, VCCI-B.				
35	IMMUNITY	-	Built to meet EN61000-4-2, -3, -4, -5, -6, -8, -11				
36	Weight (Typ.)	g	290				
37	Size (WxHxD)	mm	55 x 32 x 222 (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.
(Average output power and current is less than Maximum output power and current)
- *2. At 100/200VAC, Ta=25°C and maximum output power.
- *3. For cases where conformance to various safety specs (UL,CSA,EN) are required, to be described as 100 - 240VAC(50/60Hz).
- *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 ripple voltage.(Measure with JEITA RC-9131 probe)
- *6. 85 - 265VAC , constant load.
- *7. No load-Maximum load, constant input voltage.
- *8. Constant current limit with automatic recovery.
Not operate at overload or dead short condition for more than 30 seconds.
- *9. OVP circuit will shut down output, manual reset.(Line recycle)
- *10. At 100/200VAC nominal output voltage and maximum output current.
- *11. Measured by the each measuring method of UL, CSA,EN and DENAN (at 60Hz).
- *12. At standard mounting.

- Load (%) is percent of maximum output power or maximum output current, whichever is greater.

- For other mountings, refer to derating curve (A194-01-02_).

- When forced air cooling, refer to derating curve (A194-01-03_).

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

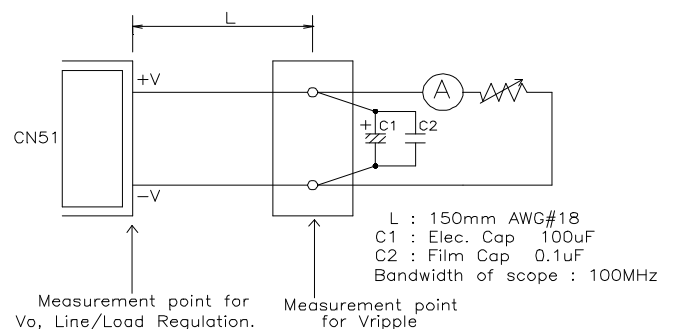


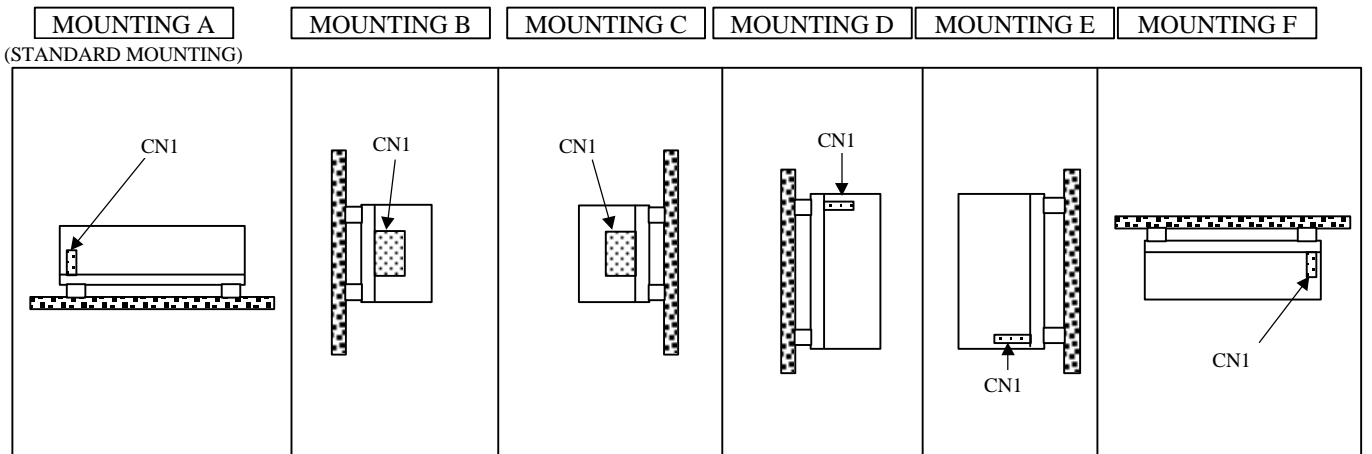
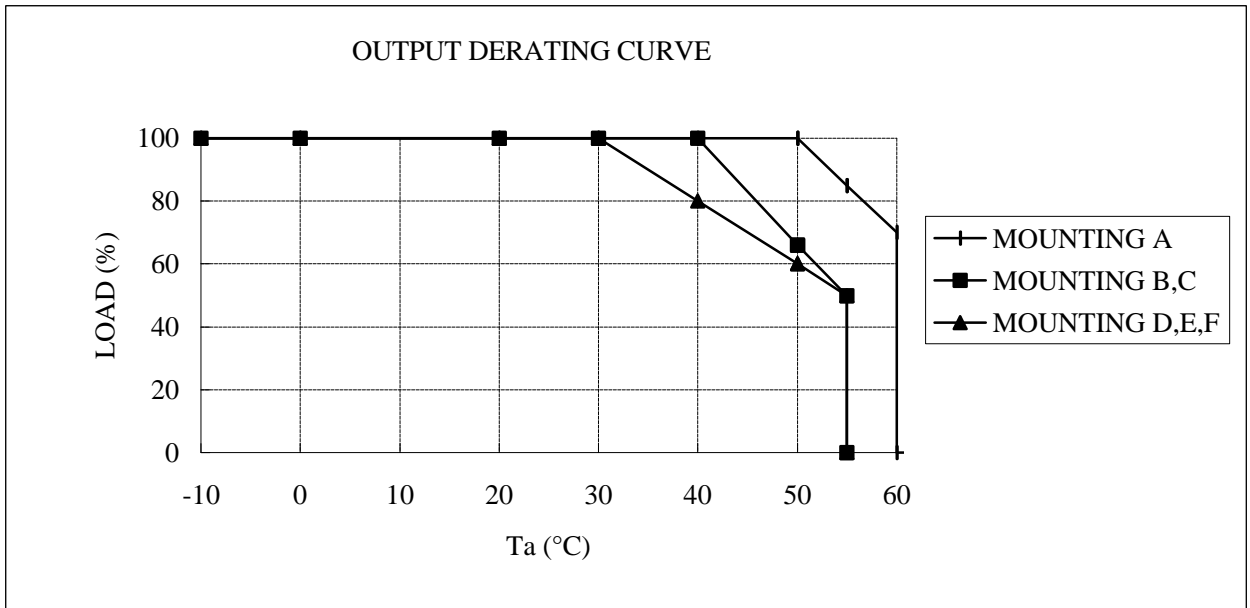
Fig.A

OUTPUT DERATING

A194-01-02

*COOLING : CONVECTION COOLING

Ta (°C)	LOAD (%)		
	MOUNTING A	MOUNTING B,C	MOUNTING D,E,F
-10 ~+30	100	100	100
40	100	100	80
50	100	66	60
55	85	50	50
60	70	-	-



OUTPUT DERATING

A194-01-03

*COOLING : FORCED AIR COOLING

Ta (°C)	LOAD (%)
	FORCED AIR
-10 ~+60	100
65	85
70	70

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

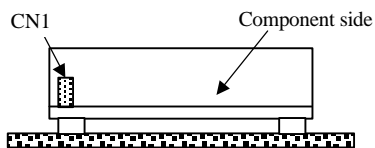
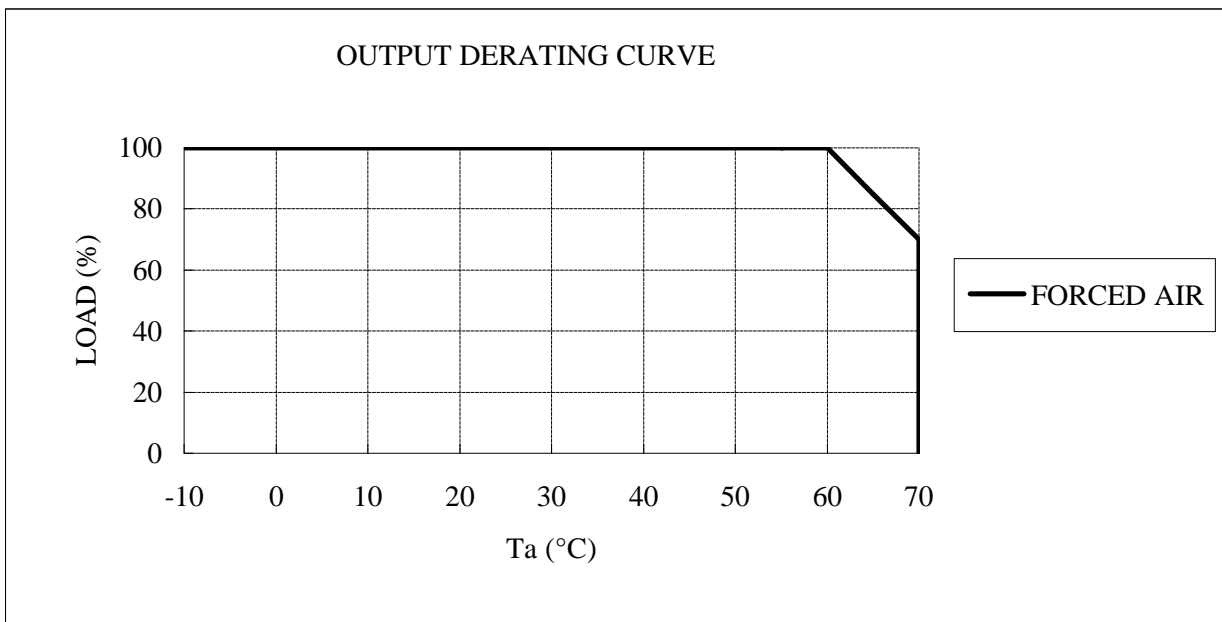


Fig B

ITEMS		MODEL	ZWS75AF-3	ZWS75AF-36	ZWS75AF-48
1	Nominal Output Voltage	V	3.3	36	48
2	Maximum Output Current	A	15	2.1	1.6
3	Peak Output Current (*1)	A	-	2.5	1.9
4	Maximum Output Power	W	49.5	75.6	76.8
5	Peak Output Power (*1)	W	-	90	91.2
6	Efficiency (Typ) (*2)	%	67	82	82
7	Input Voltage Range (*3)	-	85 ~ 265VAC (47-63Hz) or 120 ~ 370VDC		
8	Input Current (100/200VAC)(Typ) (*2)	A	0.8/0.4	1.2/0.6	1.2/0.6
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 (100/200VAC)(Typ) (*2)	-	0.99/0.95		
12	Output Voltage Range	V	2.85~3.63	32.4 ~ 39.6	43.2 ~ 52.8
13	Maximum Ripple & Noise (*5)	0<Ta<60°C	120	200	200
		-10<Ta<0°C	160	240	240
14	Maximum Line Regulation (*5,*6)	mV	20	144	192
15	Maximum Load Regulation (*5,*7)	mV	40	200	240
16	Temperature Coefficient	-	Less than 0.02%/°C		
17	Over Current Protection (*8)	A	15.7 ~	2.6~	2.0~
18	Over Voltage Protection (*9)	V	3.79~4.95	41.4 ~ 48.6	55.2 ~ 64.8
19	Hold-up Time (Typ) (*10)	-	20ms		
20	Leakage Current (*11)	-	0.5mA MAX, 0.1mA(Typ) at 100VAC / 0.16mA(Typ) at 230VAC		
21	Remote ON/OFF Control	-	Possible		
22	Parallel Operation	-	-		
23	Series Operation	-	Possible		
24	Operating Temperature (*12)	-	-10 ~+60°C Convection : -10 ~+50°C:100%,+60°C:70%		
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27	Storage Humidity	-	10 ~ 95%RH (No dewdrop)		
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35	IMMUNITY	-	Built to meet EN61000-4-2, -3, -4, -5, -6, -8, -11		
36	Weight(Typ.)	-	290g		
37	Size (WxHxD)	mm	55 x 32 x 222 (Refer to Outline Drawing)		

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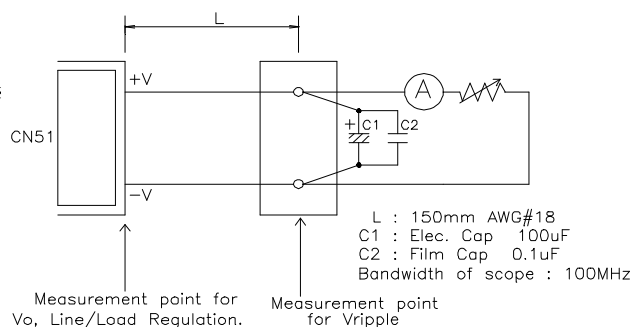


Fig.A