ZWS50B

SPECIFICATIONS

A243-01-01B

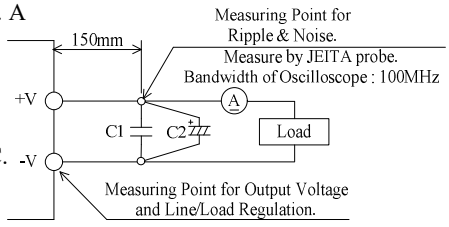
	ITEMS / MODEL			ZWS50B -3	ZWS50B -5	ZWS50B -12	ZWS50B -15	ZWS50B -24	ZWS50B -48
1	Nominal Output Voltage		V	3.3	5	12	15	24	48
2	Maximum Output Current		A	10	10	4.3	3.5	2.1	1.1
3	Maximum Output Power		W	33.0	50.0	51.6	52.5	50.4	52.8
4	Efficiency (Typ.) (*1)	100VAC	%	82	83	83	84	85	86
		200VAC	%	84	86	86	87	87	88
5	Input Voltage Range (*2)		-	85 - 265VAC (47 - 63Hz) or 120 - 370VDC					
6	Input Current (Typ.) (*1)		A	0.8/0.5	1.1/0.7				
7	Inrush Current (Typ.) (*1)(*3)		-	14A at 100VAC, 28A at 200VAC, Ta=25°C, Cold Start					
8	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
9	Maximum Ripple & Noise	0≤Ta≤70°C	mV	120	120	150	150	150	200
	(*4)(*5)	-10≤Ta<0°C	mV	160	160	180	180	180	240
10	Maximum Line Regulation (*4)(*6)		mV	20	20	48	60	96	192
11	Maximum Load Regulation (*4)(*7)		mV	40	40	96	120	150	240
12	Temperature Coefficient (*4)		-	Less than 0.02% / °C					
13	Over Current Protection (*8)		A	10.5-	10.5-	4.51-	3.67-	2.20-	1.15-
14	Over Voltage Protection (*9)		V	3.79 - 4.95	5.75 - 7.0	13.8 - 16.2	17.3 - 20.3	27.6 - 32.4	55.2 - 64.8
15	Hold-up Time (Typ.) (*1)		-	15ms(Typ) at 100% Load / 20ms(Typ) at 70% Load					
16	Leakage Current (*10)		-	Less than 0.5mA. 0.2mA(Typ) at 100VAC / 0.4mA(Typ) at 230VAC					
17	Remote Control		-	-					
18	Parallel Operation		-	-					
19	Series Operation		-	Possible					
20	Operating Temperature (*11)		-	Convection : -10 - +70°C (-10 - +50°C:100%, +60°C:75%, +70°C:50%)					
21	Operating Humidity		-	30 - 90%RH (No Condensing)					
22	Storage Temperature		-	-30 - +75°C					
23	Storage Humidity		-	10 - 90%RH (No Condensing)					
24	Cooling		-	Convection Cooling					
25	Withstand Voltage		-	Input - FG : 2kVAC (10mA), Input - Output : 3kVAC (10mA) Output - FG : 500VAC (20mA) for 1min					
26	Isolation Resistance		-	More than 100MΩ at 25°C and 70%RH Output - FG : 500VDC					
27	Vibration		-	At no operating, 10 - 55Hz (Sweep for 1min) 19.6m/s^2 Constant, X,Y,Z 1hour each.					
28	Shock		-	Less than 196.1m/s^2					
29	Safety		-	Approved by UL62368-1, CSA62368-1, EN62368-1, UL60950-1, CSA60950-1, EN60950-1 (Expire date of 60950-1 : 20/12/2020), EN50178(OV II) Designed to meet DENAN at 100VAC Only.					
30	Conducted Emission		-	Designed to meet EN55011/EN55032-B, FCC-B, VCCI-B					
31	Radiated Emission		-	Designed to meet EN55011/EN55032-B, FCC-B, VCCI-B					
32	Immunity		-	Designed to meet IEC61000-6-2 IEC61000-4-2, -3, -4, -5, -6, -8, -11					
33	Weight (Typ.)		g	165					
34	Size (W x H x D)		mm	50 x 26 x 132 (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 inrush current to a noise filter for less than 0.2ms.
*4. Please refer to Fig. A for measurement of output voltage, line & load regulation and ripple voltage.
*5. For start up at low ambient temperature and low input voltage, output ripple noise might not meet specification. However, specification can be met after one second.
*6. 85 - 265VAC, constant load.
*7. No load-Full load, constant input voltage.
*8. Hiccup with automatic recovery.
Avoid to operate at over load or short circuit condition for more than 30seconds.
*9. OVP circuit shut down the output, manual reset (Re power on) to get output voltage.
*10. Measured by the each measuring method of UL, CSA, EN and DENAN(at 60Hz), Ta=25°C.
*11. Output Derating
- Derating at standard mounting. Refer to output derating curve(A243-01-02_).
- About a force air cooling, refer to output derating curve (A243-01-03_).
- Load (%) is percent of maximum output power or maximum output current, whichever is greater.

Fig. A



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

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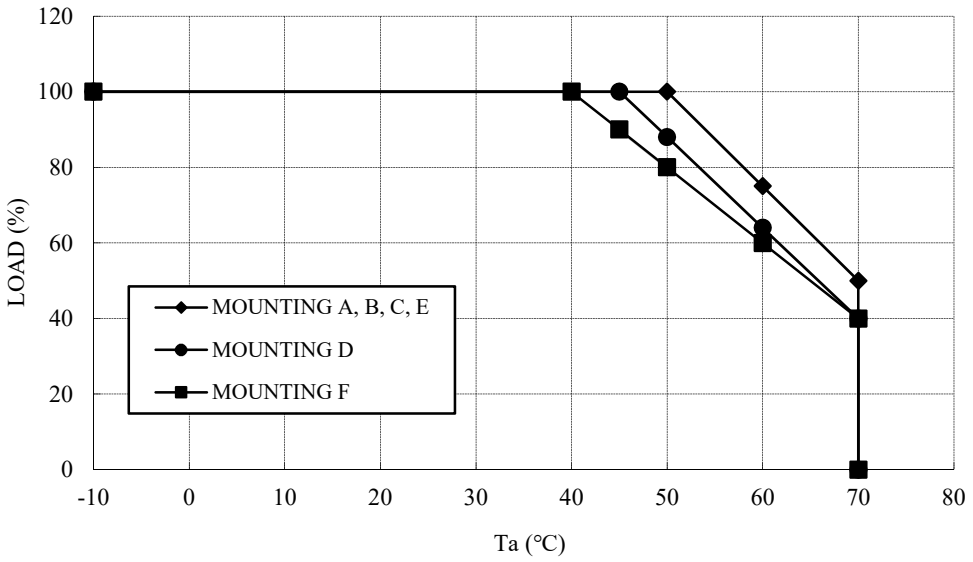
OUTPUT DERATING

A243-01-02

*COOLING : CONVECTION COOLING

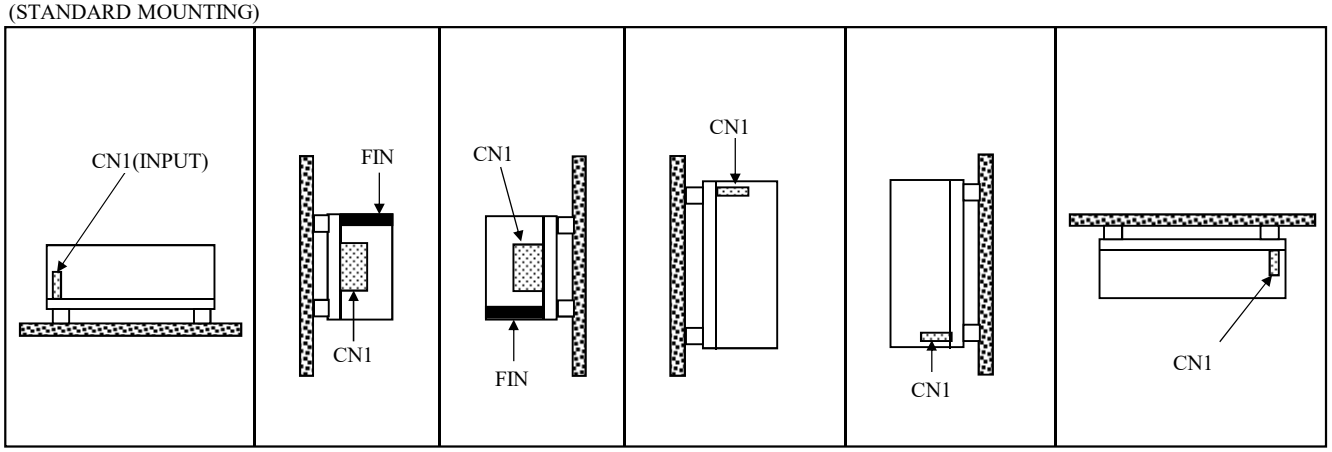
Ta (°C)	LOAD (%) MOUNTING A, B, C, E	LOAD (%) MOUNTING D	LOAD (%) MOUNTING F
-10 - +40	100	100	100
45	100	100	90
50	100	88	80
60	75	64	60
70	50	40	40

OUTPUT DERATING CURVE



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

(STANDARD MOUNTING)



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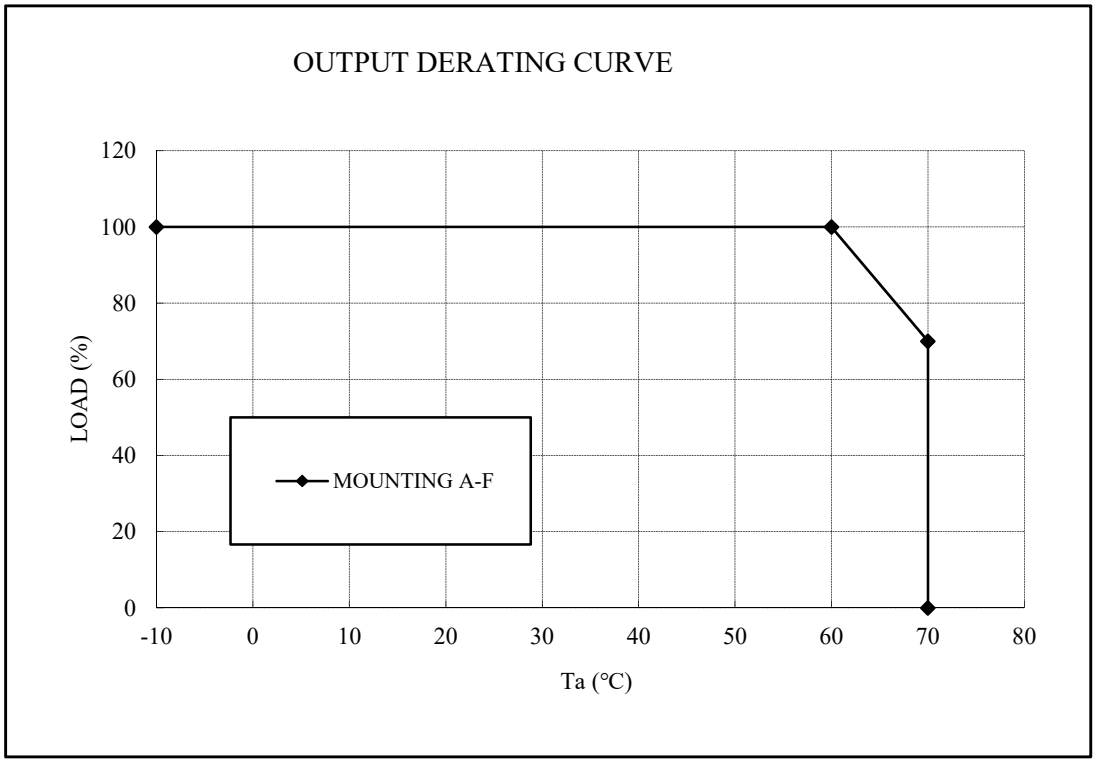
OUTPUT DERATING

A243-01-03

*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)