

ZWS150PF

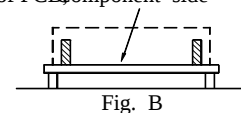
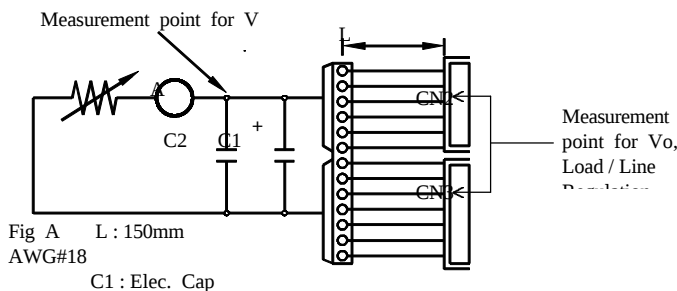
SPECIFICATIONS

CA707-01-01C

MODEL			ZWS 150PF-3	ZWS 150PF-5	ZWS 150PF-12	ZWS 150PF-15	ZWS 150PF-24	ZWS 150PF-36	ZWS 150PF-48	
ITEMS										
1	Nominal Output Voltage		V	3.3	5	12	15	24	36	48
2	Minimum Output Current		A	0	0	0	0	0	0	0
3	Maximum Output Current		A	30	30	12.5	10	6.3	4.2	3.2
4	Peak Output Current (* 1)		A	36	36	15	12	7.5	5	3.8
5	Maximum Output Power		W	99	150	150	150	151.2	151.2	153.6
6	Peak Output Power (* 1)		W	118.8	180	180	180	180	180	182.4
7	Efficiency (Typ) (* 2)		%	72	78	80	80	82	82	82
8	Input Voltage Range (* 3)		-	85 - 132VAC / 170 - 265VAC (Auto selectable) / 47 ~ 63Hz						
9	Input Current (Typ)		-	3.0 / 1.6A at 100 / 200VAC						
10	Inrush Current (Typ)		-	30A at 100 / 200VAC (Ta = 25°C Cold Start)						
11	PFHC (* 4)		-	Conform to IEC 1000 - 3 - 2 class D.						
12	Output Voltage Range		-	±10%						
13	Maximum Ripple & Noise (* 5)	0~+60°C	mV	120	120	150	150	200	300	400
		-10~0°C	mV	160	160	180	180	200	300	400
14	Maximum Line Regulation (* 5, 6)		mV	20	20	48	60	96	144	192
15	Maximum Load Regulatio (* 5, 7)		mV	40	40	96	120	150	240	300
16	Maximum Temperature Dr (* 5, 8)		mV	33	50	120	150	240	360	480
17	Over Current Protection (* 9)		-	130% ~						
18	Over Voltage Protection (* 10)		-	115 ~ 135%						
19	Hold-Up Time (Typ) (* 2)		-	17ms at 150W						
20	Parallel Operation		-	-						
21	Series Operation (* 11)		-	Possible						
22	Operating Temperature (* 12) (* 13) (* 14)		-	-10°C ~ +60 °C						
			-	Convection: -10°C ~ +30°C (100%); 40°C (80%); 60°C (50%)						
			-	Forced Air Cooling: -10°C ~ +50°C (100%); 60°C (70%)						
			-							
23	Operating Humidity		-	30 ~ 90 %RH						
24	Storage Temperature		-	- 30 ~ +85°C						
25	Storage Humidity		-	10 ~ 95%RH						
26	Cooling		-	Convection & Forced air cooling (Depends on O/P loading)						
27	Withstand Voltage		-	Input - Output : 3.0kVAC (20mA), Input - FG : 2.0kVAC (20mA)						
			-	Output - FG : 500VAC (100mA) for 1min.						
28	Isolation Resistance		-	More than 100MΩ at Ta=25°C and 70%RH, Output - FG 500VDC						
29	Vibration		-	10 - 55Hz Amplitude (sweep 1min) Less than 19.6m/s ² X, Y, Z 1Hr each						
30	Shock		-	Less than 196.1m/s ²						
31	Safety		-	Conform to UL1950, CSA 950, EN60950, Build to meet DENTORI						
32	EMI		-	Conform to VCCI - II, FCC class B, EN55022B						
33	Weight		g	800						
34	Size (W.H.D.)		mm	75 x 40 x 222						

NOTES:

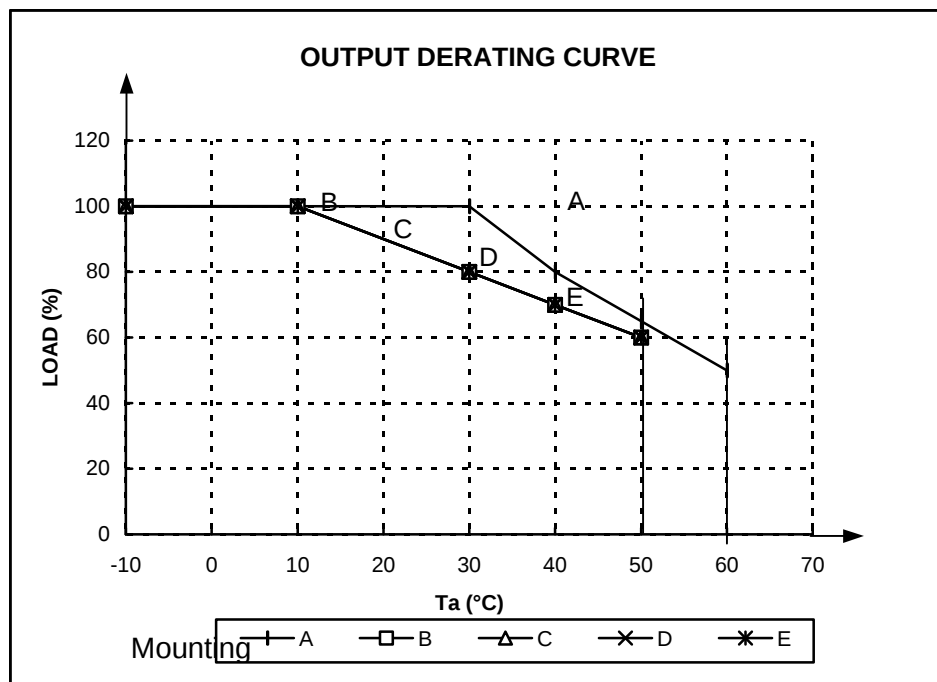
- * 1: Operating time at peak output is less than 10sec. (Duty ≤ 0.35)
- * 2: At 100VAC and Maximum Output power, Ta = 25°C.
- * 3: For cases where conformance to various safety specs (UL, CSA, EN) are required to be described as 100 -120VAC, 200 -240VAC, 50/60Hz on name plate.
- * 4: At 100/230VAC and Input power 75W to Maximum Output Power.
- * 5: Please refer to Fig A for measurement of line & load regulation and output ripple voltage.
- * 6: From 85 -132VAC / 170 - 265VAC, constant load.
- * 7: From Min load - Full load (Maximum power), constant input voltage.
- * 8: From -10 ~ +50°C, constant input voltage and load.
- * 9: Current limiting with automatic recovery.
Avoid to operate overload or dead short for more than 30seconds.
- * 10: OVP circuit will shutdown output, manual reset.
- * 11: Refer to Instruction Manual.
- * 12: At standard mounting method, Fig B.
- * 13: Output Derating at Ta=-10°C for Input Voltage: 170VAC 80%, 180VAC 90%,
85-132VAC, 190-265VAC 100%.
- * 14: Recommended Minimum Air Velocity: 0.7m/s (Measured at component side of PCB, component side
Air must flow through component side.)



OUTPUT DERATING

*COOLING: CONVECTION COOLING

Ta (°C)	LOADING CONDITION (%)				
	Mounting A	Mounting B	Mounting C	Mounting D	Mounting E
-10	100	100	100	100	100
10	100	100	100	100	100
30	100	80	80	80	80
40	80	70	70	70	70
50	65	60	60	60	60
60	50	-	-	-	-



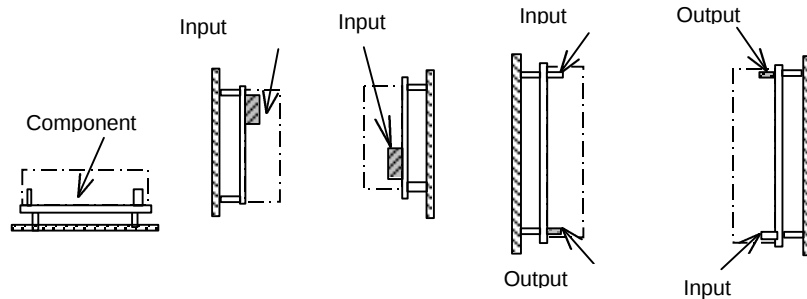
(A)

(B)

(C)

(D)

(E)

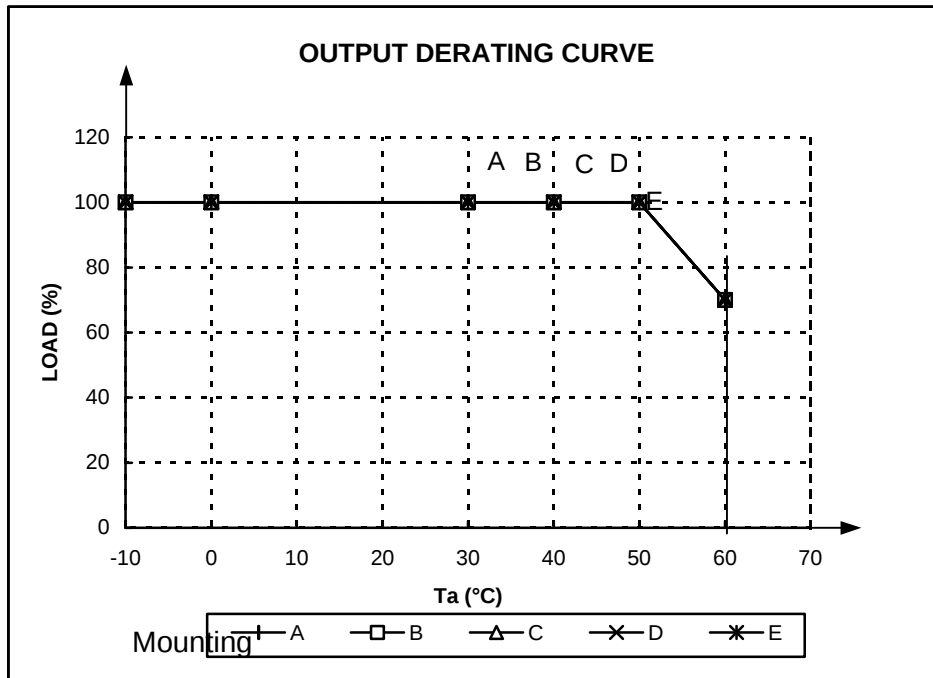


OUTPUT DERATING

*COOLING: FORCE AIR COOLING

Ta (°C)	LOADING CONDITION (%)				
	Mounting A	Mounting B	Mounting C	Mounting D	Mounting E
-10	100	100	100	100	100
10	100	100	100	100	100
30	100	100	100	100	100
40	100	100	100	100	100
50	100	100	100	100	100
60	70	70	70	70	70

RECOMMENDED AIR VELOCITY : 0.7m/s (MEASURED AT COMPONENT



(A)

(B)

(C)

(D)

(E)

