

SPECIFICATIONS

A154-01-01D

ITEMS		MODEL	ZWS15-3	ZWS15-5	ZWS15-12	ZWS15-15	ZWS15-24	
1	Nominal Output Voltage	V	3.3	5	12	15	24	
2	Minimum Output Current	A	0	0	0	0	0	
3	Maximum Output Current	A	3.0	3.0	1.25	1.0	0.65	
4	Maximum Peak Output Current (*1)	A	3.6	3.6	1.5	1.2	0.78	
5	Maximum Output Power	W	9.9	15.0	15.0	15.0	15.6	
6	Maximum Peak Output Power (*1)	W	11.88	18.0	18.0	18.0	18.72	
7	Efficiency (Typ)	(%2)	63	71	71	71	71	
8	Input Voltage Range	(%3)	85 - 265VAC (47 - 440Hz) or 110 - 330VDC					
9	Input Current(Typ)	-	0.45A at 100VAC, 0.23A at 200VAC					
10	Inrush Current(Typ)	-	15A at 100VAC, 30A at 200VAC, Ta=25°C, Cold Start					
11	Output Voltage Range	-	+/-10%					
12	Maximum Ripple & Noise	0~+60°C	mV	120	120	150	150	200
		(%10) -10~0°C	mV	160	160	180	180	200
13	Maximum Line Regulation	(%4,10)	mV	20	20	48	60	96
14	Maximum Load Regulation	(%5,10)	mV	40	40	96	120	150
15	Maximum Temperature Drift	(%6)	mV	60	60	140	180	280
16	Over Current Protection	(%7)	-	125% ~				
17	Over Voltage Protection	(%8)	-	140% ~				
18	Hold-up Time (Typ)	(%2)	-	17ms at 100VAC, 15W, Ta=25°C				
19	Parallel Operation	-	-					
20	Series Operation	(%9)	-	Possible				
21	Operating Temperature	(%11)	-	-10°C ~ +50°C : 100%, +60°C : 70%				
22	Operating Humidity	-	30 ~ 90%RH					
23	Storage Temperature	-	-30°C ~ +85°C					
24	Storage Humidity	-	10 ~ 95%RH					
25	Cooling	-	Convection Cooling					
26	Withstand Voltage	-	Input - FG : 2kVAC (20mA), Input - Output : 3kVAC (20mA) Output - FG : 500VAC (100mA) for 1min					
27	Isolation Resistance	-	More than 100MΩ at 25°C and 70%RH Output - FG 500VDC					
28	Vibration	-	10-55Hz Amplitude(Sweep 1min) Less than 19.6m/s ² X,Y,Z 1h each					
29	Shock	-	Less than 196.1m/s ²					
30	Safety	-	Approved by UL60950-1, CSA60950-1, EN60950-1, Built to meet DENAN					
31	Conducted Noise	-	Built to meet EN55022-B, FCC-ClassB, VCCI-B					
32	Weight (Typ)	g	140					
33	Size (W.H.D)	mm	50 x 21 x 125					

=NOTES=

- *1. Operating time at peak output is less than 10 seconds. (Duty=0.35)
- *2. At 100VAC and maximum output current , Ta=25°C.
- *3. For cases where conformance to various safety specs (UL,CSA) are required, to be described as 100 - 240VAC, 50/60Hz on name plate.
- *4. From 85 - 265VAC and constant load.
- *5. From Min load - Full load (Maximum Power) and constant input voltage.
- *6. From -10 ~ +50°C constant input voltage and load.
- *7. Current limiting with automatic recovery. Avoid to operate over load or dead short for 30 seconds.
- *8. Over voltage clamping by Zener Diode.
- *9. Refer to Instruction Manual.
- *10. Please refer to Fig A for measurement of line & load regulation and ripple voltage.
- *11. At standard mounting method, Fig B.

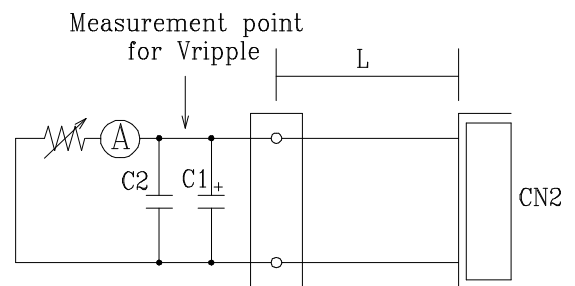


Fig.A L:150mm AWG#22
 C1:Elec.Cap 100uF
 C2:Film Cap 1uF
 Measurement point for Vo, Line/Load Regulation.
 Bandwidth of scope:100MHz

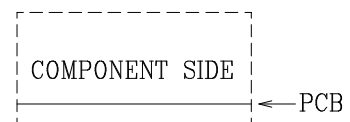


Fig.B

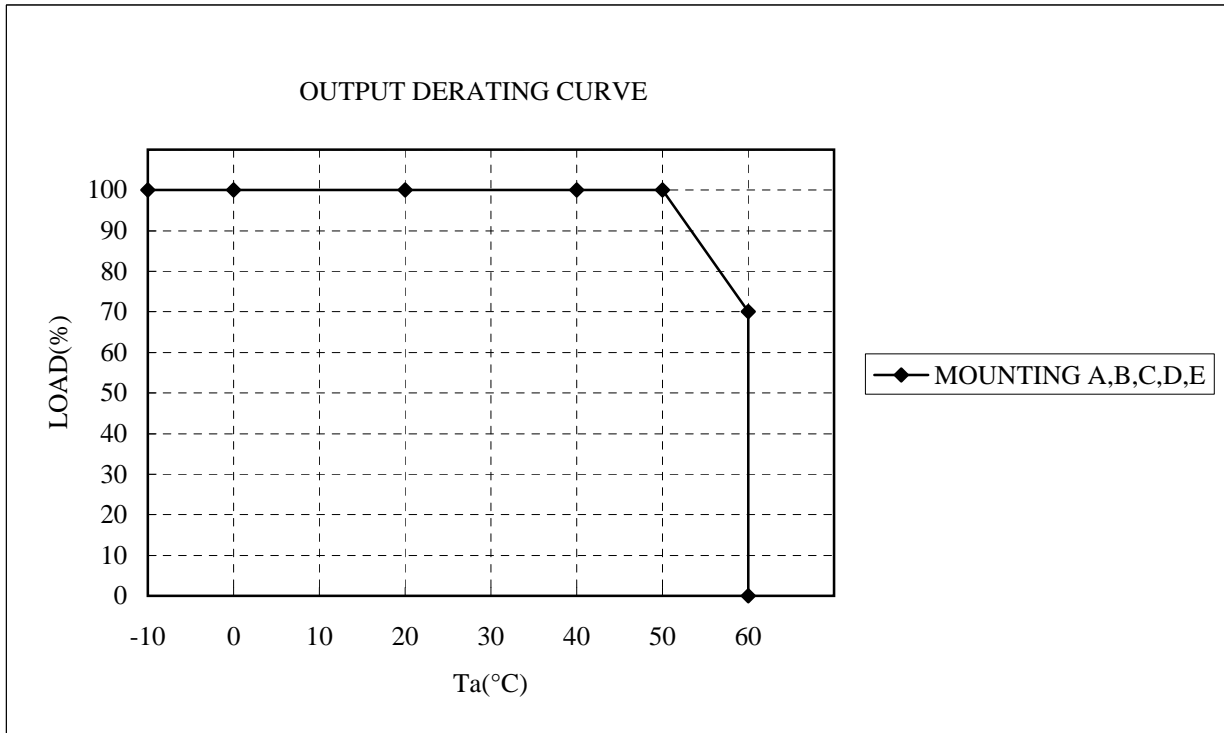
ZWS 15

OUTPUT DERATING

A154-01-02

COOLING : CONVECTION COOLING

Ta(°C)	LOAD(%)				
	MOUNTING A	MOUNTING B	MOUNTING C	MOUNTING D	MOUNTING E
-10 ~+50	100	100	100	100	100
60	70	70	70	70	70



- MOUNTING A
- MOUNTING B
- MOUNTING C
- MOUNTING D
- MOUNTING E
- DONT USE

(STANDARD MOUNTING)

