## ZWS300BAF/R

Power

Supply

¢₹)

Measuring Point for

-(A)

Measuring Point for

C1 : Film Cap. 0.1 µF

Fig. A

C2 : Elect. Cap. 100 µF

and Line/Load Regulation.

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. 150mm 、

C1

+V

-V

Ripple & Noise. Measure by JEITA probe.

Bandwidth of Oscilloscope: 100MHz

Load

--₩--]kΩ SW

OFF

)\_\_R

 +R & -R terminal condition
 Output condition

 SW ON (Higher than 4.5V)
 ON

 External voltage level : Ε
 External resistance : R

 4.5 ~ 12.5VDC
 No required

 12.5 ~ 24.5VDC
 1.5kΩ

Fig. B

The control mode is shown below

SW OFF (Lower than 0.8V)

## **SPECIFICATIONS**

4254	4-01-01/R-C								
		MODEL		ZWS300BAF	ZWS300BAF	ZWS300BAF	ZWS300BAF	ZWS300BAF	
	ITEMS			-12/R	-15/R	-24/R	-36/R	-48/R	
1	Nominal Output Voltage		V	12	15	24	36	48	
2	Maximum Output Current		Α	25.0	20.0	12.5	8.4	6.3	
3	Maximum Output Power	-	W	300.0	300.0	300.0	302.4	302.4	
4	Efficiency (Typ)	100VAC	%	-	6		88		
	(*1) 200VAC		%	89 91					
5	Input Voltage Range	(*2)(*3)	-	85 - 265VAC (47 - 63Hz) or 120 - 370VDC					
6	Input Current (Typ)	(*1)	Α	3.7/1.9 3.6/1.8					
7	Inrush Current (Typ)	(*1)(*4)	-	15A at 100VAC, 30A at 200VAC, Ta=25°C, Cold Start					
8	PFHC		-	Designed to meet IEC61000-3-2					
9	Power Factor (Typ)	(*1)	-	0.97/0.93					
10	Output Voltage Range	-	V	9.6 - 13.2	13.5 - 16.5	21.6 - 27.5	32.4 - 39.6	39.5 - 52.8	
11	Maximum Ripple & Noise	0 <u>≤</u> Ta <u>≤</u> 70°C	mV	150	150	150	250	250	
	(*5)		mV	180	180	180	300	300	
12	Maximum Line Regulation	(*5)(*6)		48	60	96	144	192	
13	Maximum Load Regulation	(*5)(*7)	mV	100	120	150	240	240	
14	Temperature Coefficient	(*5)	-	Less than 0.02% / °C					
15	Over Current Protection	(*8)	Α	26.25 -	23.1-	14.7 -	9.87 -	7.35 -	
16	Over Voltage Protection	(*9)	V	13.8 - 16.2	17.3 - 20.3	28.8 - 33.6	41.4 - 48.6	55.2 - 64.8	
17	Hold-up Time (Typ)	(*1)	-	18ms(typ) at 100VAC & Rated O/P Power, 20ms(typ) at 100VAC & 80% Load					
18	Leakage Current	(*10)	-	Less than 0.5mA. 0.2mA (Typ) at 100VAC / 0.4mA (Typ) at 230VAC					
19	Remote Control	(*11)	-	Possible					
20	Parallel Operation			Possible					
21 22	Series Operation Operating Temperature		-	-10 to +70°C -10 to +70°C					
22	Operating reinperature		-	$(-10 \text{ to } +40^{\circ}\text{C}:100\%, +50^{\circ}\text{C}:80\%, $ $(-10 \text{ to } +45^{\circ}\text{C}:100\%, +50^{\circ}\text{C}:88\%, $					
		(*12)		+60°C·60%	$70^{\circ}$ , $150^{\circ}$ , $2.80^{\circ}$ , $70^{\circ}$	(-10 10 +43 C.100%, +50 C.88%, +60°C:64%, 70°C:40%)			
23	Operating Humidity	(12)	-	+60°C:60%, 70°C:40%) 30 to 90%RH (No Condensing)					
24	Storage Temperature		-	-30 to +75°C					
25	Storage Humidity		-	10 to 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 <sup>2</sup> Constant, X,Y,Z 1hour each.					
30	Shock		-	Less than $196.1 \text{m/s}^2$					
31	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.					
32	Conducted Emission		-	Designed to meet EN55011/EN55032-B, FCC-B, VCCI-B					
33	Radiated Emission		-	Designed to meet EN55011/EN55032-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	540					
36	Size (W x H x D)		mm		84 x 42 x 18	80 ( Refer to Outlin	ne 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. Output derating needed when input voltage less than 90VAC. Refer to LOAD vs. INPUT VOLTAGE (24V/36V/48V: A254-01-02\_, 12V/15V: A254-01-06\_).

- \*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 Vo, line & load regulation and ripple voltage.
- \*6. 90 265VAC, constant load.
- \*7. No load-Full load, constant input voltage.

\*8. Constant current limit with automatic recovery.

Avoid to operate at over load or short circuit condition.

- \*9. OVP circuit will shut down output, manual reset (Re power on).
- \*10. Measured by the each measuring method of UL, CSA, EN and
- DENAN(at 60Hz), Ta=25°C.

\*11. As for Remote control mode, refer to Fig. B.

\*12. Output Derating

- Derating at standard mounting. Refer to LOAD vs. AMBIENT TEMPERATURE (24V/36V/48V: A254-01-02\_, 12V/15V: A254-01-06\_).

- When forced air cooling, refer to forced air cooling specifications (A254-01-03/R-, 24V/36V/48V: A254-01-04\_, 12V/15V: A254-01-08\_).

- Load (%) is percent of maximum output power or maximum output current, do not exceed its derating of maximum load.

au (70) is percent of maximum output power or maximum output current, do not exceed its derating of maximu