

ZWS300BAF/L

SPECIFICATIONS

A254-01-01/L-B

ITEMS		MODEL	ZWS300BAF -12/L	ZWS300BAF -15/L	ZWS300BAF -24/L	ZWS300BAF -36/L	ZWS300BAF -48/L
1	Nominal Output Voltage	V	12	15	24	36	48
2	Maximum Output Current	A	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	86		88		
		(*1) 200VAC	89		91		
5	Input Voltage Range	(*2)(*3) -	85 - 265VAC (47 - 63Hz) or 120 - 370VDC				
6	Input Current (Typ)	(*1) A	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≤Ta≤70°C	150	150	150	250	250
		(*5) -10≤Ta<0°C	180	180	180	300	300
12	Maximum Line Regulation	(*5)(*6) mV	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) A	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	Parallel Operation	-	-				
20	Series Operation	-	Possible				
21	Operating Temperature	-	-10 - +70°C		-10 - +70°C		
		(*11)	(-10 - +40°C:100%, +50°C:80%, +60°C:60%, 70°C:40%)		(-10 - +45°C:100%, +50°C:88%, +60°C:64%, 70°C:40%)		
22	Operating Humidity	-	30 - 90%RH (No Condensing)				
23	Storage Temperature	-	-30 - +75°C				
24	Storage Humidity	-	10 - 90%RH (No Condensing)				
25	Cooling	-	Convection Cooling				
26	Withstand Voltage	-	Input - FG : 2kVAC (10mA), Input - Output : 3kVAC (10mA) Output - FG : 500VAC (20mA) for 1min				
27	Isolation Resistance	-	More than 100MΩ at 25°C and 70%RH Output - FG : 500VDC				
28	Vibration	-	At no operating, 10 - 55Hz (Sweep for 1min) 19.6m/s ² Constant, X,Y,Z 1hour each.				
29	Shock	-	Less than 196.1m/s ²				
30	Safety	-	Approved by UL60950-1, CSA60950-1, EN60950-1, EN50178 (OV II), Designed to meet DENAN at 100VAC only.				
31	Conducted Emission	-	Designed to meet EN55011/EN55022-B, FCC-B, VCCI-B				
32	Radiated Emission	-	Designed to meet EN55011/EN55022-B, FCC-B, VCCI-B				
33	Immunity	-	Designed to meet IEC61000-6-2 IEC61000-4-2, -3, -4, -5, -6, -8, -11				
34	Weight (Typ)	g	740				
35	Size (W x H x D)	mm	95 x 53 x 212 (Refer to Outline Drawing)				

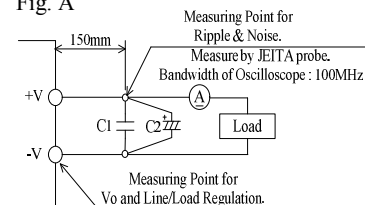
*Read instruction manual carefully, before using the power supply unit.

=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. 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. 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/L-_ , 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.

Fig. A



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

ZWS300BAF/L

SPECIFICATIONS

A254-01-03/L

MODEL		ZWS300BAF	ZWS300BAF	ZWS300BAF	ZWS300BAF	ZWS300BAF	
ITEMS		-12/L	-15/L	-24/L	-36/L	-48/L	
1	Nominal Output Voltage	V	12	15	24	36	48
2	Maximum Output Current (*1)	A	25.0	22.0	14.0	9.4	7.0
3	Maximum Output Power (*1)	W	300.0	330.0	336.0	338.4	336.0
4	Efficiency (Typ)	100VAC	86		87		
		200VAC	89		90		
5	Input Voltage Range (*3)(*4)	-	85 - 265VAC (47 - 63Hz) or 120 - 370VDC				
6	Input Current (Typ) (*2)	A	3.7/1.9	4.0/2.0			
7	Hold-up Time (Typ) (*2)	-	18ms(typ) at 100VAC & Rated O/P Power, 20ms(typ) at 100VAC & 80% Load	16ms(typ) at 100VAC & Rated O/P Power, 20ms(typ) at 100VAC & 70% Load			
8	Operating Temperature (*5)	-	-	-10 - +70°C (-10 - +50°C:100%, +60°C:80%, +70°C:60%) (Air velocity ≥ 0.7m/s)			
		-	-10 - +70°C (-10 - +50°C:100%, +70°C:60%) (Air velocity ≥ 1.4m/s)	-10 - +70°C (-10 - +60°C:100%, +70°C:70%) (Air velocity ≥ 1.4m/s)			
9	Cooling (*1)	-	Forced Air Cooling				
10	Radiated Emission	-	Designed to meet EN55011/EN55022-A, FCC-A, VCCI-A				

*For other specification items, refer to standard specifications.

=NOTES=

- *1. Forced air cooling with air velocity more than 0.7m/s for 24V/36V/48V.
Forced air cooling with air velocity more than 1.4m/s for 12V/15V.
(Measured at component side of PCB, air must flow through component side).
- *2. At 100VAC/200VAC, Ta=25°C, nominal output voltage 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. 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_).
- *5. Output Derating
- When forced air cooling, refer to LOAD vs. AMBIENT TEMPERATURE (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.