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With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



## 300W Single Output, Convection Cooled Power Supplies

### Features

- ◆ Universal Input (85 - 265VAC)
- ◆ Power Factor Corrected
- ◆ Convection cooling (300W) or Forced Air (336-338W)
- ◆ Five year warranty
- ◆ Less than 0.5mA earth leakage current



### Key Market Segments & Applications



Specifications		ZWS300BAF
Model		ZWS300BAF
Input Voltage	V	85-265VAC (47-63Hz), 120-370VDC <sup>(5)</sup>
Input Current	A	3.7 / 1.9 (Convection cooled rating)
Inrush Current <sup>(1)(2)</sup>	A	15 / 30
Power Factor	-	0.97 at 100VAC, 0.93 at 200VAC, Meets EN61000-3-2
Leakage Current	mA	0.5mA Max. Typically 0.2mA (100VAC), 0.4mA (230VAC)
Off Load Power Draw	W	Typically 0.1W at 100VAC, 0.5W at 200VAC, 0.8W at 265VAC when unit is in inhibit
Temperature Coefficient	%/°C	<0.02%/°C
Overcurrent Protection <sup>(3)</sup>	-	>116% of convection cooled rated output current (>105% for 12V model)
Overvoltage Protection	V	12V: 13.8-16.2V, 15V: 17.3-20.3V, 24V: 28.8-33.6V, 36V: 41.4-48.6V, 48V: 55.2-64.8V
Hold Up Time (Typ) <sup>(1)</sup>	ms	18ms at 100VAC input (Convection cooled rating)
Efficiency <sup>(1)</sup>	%	12 & 15V models: 86 / 89%, 24V, 36V & 48V models: 88 / 91% (Convection cooled rating)
Remote On/Off	-	Optional, see instruction manual
Operating Temperature 12V & 15V Models	°C	Convection: -10°C to +70°C, derate linearly to 40% load from 40°C to 70°C 1.4m/s Airflow: -10°C to +70°C, derate linearly to 60% load from 50°C to 70°C
Operating Temperature 24V, 36V & 48V Models	°C	Convection: -10°C to +70°C, derate linearly to 40% load from 45°C to 70°C 0.7m/s Airflow: -10°C to +70°C, derate linearly to 60% load from 50°C to 70°C 1.4m/s Airflow: -10°C to +70°C, derate linearly to 70% load from 60°C to 70°C
Storage Temperature	°C	-30 to +75°C
Humidity (non condensing)	%RH	Operating: 30 - 90%RH, Storage: 10 - 90%RH
Cooling	-	Convection or forced air
Withstand Voltage	-	Input to Ground 2kVAC (20mA), Input to Output 3kVAC (20mA), Output to Ground 500VAC (20mA) for 1 min.
Isolation Resistance	-	>100M at 25°C & 70%RH, Output to Ground 500VDC
Vibration (non operating)	-	10 - 55Hz (1 minute sweep), 19.6m/s <sup>2</sup> constant X, Y, Z 1 hour each
Shock	-	< 196.1 m/s <sup>2</sup>
Safety Agency Certifications	-	UL60950-1, CSA60950-1, EN60950-1, EN50178 OV II, CE Mark
Conducted & Radiated EMI <sup>(4)</sup>	-	EN55011/EN55022-B, FCC Class B, VCCI-B
Immunity	-	EN61000-4-2 (lvl2, 3), -3 (lvl 3), -4 (lvl 3), -5 (lvl 3, 4), -6 (lvl 3), -8 (lvl 4), -11; EN61000-6-2
Weight (Typ)	g	540g (open frame)
Size (WxHxD)	in (mm)	3.31 x 1.65 x 7.09" (84 x 42 x 180) open frame
Warranty	yrs	Five Years

#### Notes:

- (1) 100 / 200VAC Input
- (2) 25°C ambient (cold start)
- (3) Avoid prolonged operation in overload
- (4) Forced air rating: Class A radiated
- (5) Safety certified for AC input only

Model Selector							
Model	Output Voltage	Adjustment Range	Max Current Convection	Max Current Forced Air	Line Reg (mV)	Load Reg (mV)	Ripple & Noise (mV)
ZWS300BAF12	12V	9.6 - 13.2V	25A	25A	48	100	100
ZWS300BAF15	15V	13.5 - 20.3V	20A	22A	60	120	120
ZWS300BAF24	24V	21.6 - 27.5V	12.5A	14A	96	150	150
ZWS300BAF36	36V	32.4 - 39.6V	8.4A	9.4A	144	240	250
ZWS300BAF48	48V	39.5 - 52.8V	6.3A	7A	192	240	250

### Outline Drawing

**CONNECTORS USED:**

PART DESCRIPTION	PART NAME	MANUFACT.	QTY
PIN HEADER (INPUT SIDE CN1)	B3PS-VH	JST	1
PIN HEADER (OUTPUT SIDE CN51)	B8P-VH	JST	1

\*OUTPUT CURRENT OF EACH CONNECTOR PIN MUST BE LESS THAN 5A.

**MATCHING HOUSINGS, PINS & TOOL (NOT INCLUDED WITH THE PRODUCT):**

PART DESCRIPTION	PART NAME	MANUFACT.	QTY
SOCKET HOUSING (CN1)	VHR-5N	JST	1
SOCKET HOUSING (CN51)	VHR-8N	JST	1
TERMINAL PINS	SVH-21T-P1.1	JST	11
	BVH-21T-P1.1	JST	11
HAND CRIMPING TOOL	YC-160R	JST	-

**NOTES:**

A: 4- $\phi$ 3.5 HOLES ARE FOR CUSTOMER'S CHASSIS MOUNTING HOLES. ALL MUST BE SCREWED IN ORDER TO CONFORM THE VIBRATION SPEC.

B: MODEL NAME, INPUT VOLTAGE RANGE, NOMINAL OUTPUT VOLTAGE, AND MAXIMUM OUTPUT CURRENT ARE SHOWN HERE IN ACCORDANCE WITH THE SPECIFICATIONS.

C: COUNTRY OF MANUFACTURE WILL BE SHOWN HERE.

D:  $\downarrow$  IS FOR SAFETY GROUND CONNECTION.

E: TO KEEP THE DISTANCE MORE THAN 4mm BETWEEN PCB EDGE AND CUSTOMER'S CHASSIS.

F: OPTION MODEL(ZWS300BAF-\*/R)  
 REMOTE ON/OFF CONTROL CONNECTOR (CN52) : B2B-XH-AM (JST)  
 MATCHING HOUSING : XHP-2 (JST)  
 MATCHING TERMINAL : BXH-001T-P0.6 (JST) OR SXH-001T-P0.6 (JST)  
 HAND CRIMPING TOOL : YC-110R (JST) OR YRS-110 (JST)  
 MATCHING HOUSING AND TERMINAL --- NOT INCLUDED WITH THE PRODUCT

SCALE FOR NAME PLATE : 2/1

MODEL NAME: ZWS300BAF  
 A254-02-01

### Options

Suffix	Description
-	JST Connectors
/L	L Bracket
/A	Cover & L Bracket
/R	Remote On/Off
/T	Screw Terminals
/CO2	PCB Coating
Example	ZWS300BAF24/TA*

### Similar Products

ZWS-B, -BAF, -BP	10W to 240W Single output
HWS	15W to 1800W Single Output, Enclosed
EFE	300W to 400W Single Output, Medical & ITE
CFE400M	300W to 400W Single Output, Medical & ITE

For Additional Information, please visit [us.tdk-lambda.com/lp/products/zws-series.htm](http://us.tdk-lambda.com/lp/products/zws-series.htm)



\* please contact factory for other combinations of option codes