



- Universal Input (85 - 265VAC)
- Power factor Corrected
- Input transient Corrected
- Peak Power capability
- 2 year warranty
- High quality design

Key Market Segments & Applications

Factory Automation	Process Control, NC-Machining, Automotive, Packaging Equipment, Materials Handling, Chemical Processing, Robots
Test & Measurement	Burn-in & Test, Automated Test, Instrumentation, Measurement, Detection
Light Industrial	Gaming, Vending, Printers

ZWS-AF Series
Single Output, Low Cost,
Worldwide Use

ZWS-AF Features and Benefits

Features

- Input Transient Protected
- 2 Year Warranty
- Power Factor Corrected
- Peak Power Capability

Benefits

- Withstands Harsh Environments
- Low Cost of Ownership
- Supports Global Use
- Can Drive High current Start Up Devices

Specifications

ITEMS		MODELS	ZWS50AF	ZWS75AF	ZWS100AF	ZWS150AF
AC Input Voltage range	VAC	85-265VAC (47-63Hz)				
DC Input Voltage range	VDC	120-370VDC				
Input Current (Typ)	(1) A	0.8/0.4	1.2/0.6	1.4/0.7	2.0/1.0	
Inrush Current	A	14/28 25°C Ambient, Cold Start				
Power Factor	(1) -	Meets EN61000-3-2 (0.99/0.95)				
Maximum Ripple and Noise	mV	120mV for 5V output, 150mV all other outputs				
Temperature Coefficient	-	<0.02%/°C				
Overcurrent Protection	(4) -	>105% of Peak Current Capability				
Hold Up Time (Typ)	(1) ms	20				
Leakage Current	-	0.5mA max 0.1mA (Typ) at 100VAC 0.16mA (Typ) at 230VAC				
Remote On / Off	-	See installation manual (Not available with /A cover option)				
Operating Temperature	-	Convection cooling - See table on page 2				
Operating Temperature	-	0.7m/s air -10°C to +70°C, derate linearly to 70% load from 60°C to 70°C (2)				
Storage Temperature	-	-30° to +85°C				
Humidity (non condensing)	-	Operating: 30 - 90% RH, storage 10-95% RH				
Withstand Voltage	-	I/P~Grnd 2kVAC (20mA), I/P~O/P 3kVAC (20mA), O/P~Grnd 500VAC (100mA) for 1 min.				
Isolation Resistance	-	>100M at 25C & 70%RH, Output to Ground 500VDC				
Vibration (non operating)	-	10 - 55Hz (1 minute sweep), 19.6m/s ² constant X, Y, Z 1 hour				
Shock	-	< 196.1 m/s ²				
Safety Agency Approvals	-	UL1950, CSA950, EN60950, EN50178				
Conducted & Radiated EMI	-	designed to meet EN55011, EN55022-B, FCC Class B, VCCI-B				
Immunity	-	designed to meet EN61000-4-2,-3,-4,-5,-6,-8,-11				
Weight (Typ)	g	210	290	380	500	
Size (W x H x D)	mm	55 x 26 x 195	55 x 32 x 222	62 x 35 x 222	75 x 40 x 222	
Warranty	yrs	Two Years				

Notes:

(1) 100/200VAC (2) ZWS150AF -10 to 60°C, derate linearly to 70% load from 50°C to 60°C

(3) The peak current draw must not exceed a 10 second duration with a duty cycle of 35%

(4) Constant current limit with automatic recovery. Do not operate in a over-load or shorted output condition for more than 30 seconds.

(5) An overvoltage condition on the output will shut down the power supply. The power supply must be re-set by cycling the AC input.

Output Ratings										
Model	Voltage	Output Adjust Range (V)	Max Curr. (A)	Max Peak Curr. (A) ³	Max Output Power (W)	Peak Output Power ³ (W)	Eff. (%)	Max Load Reg.(mV)	Max Line Reg.(mV)	OVP (V) ⁵
ZWS75AF3	3.3V	2.85-3.63	15.0	-	49.5	-	67	40	20	3.79-4.95
ZWS150AF3	3.3V	2.85-3.63	30.0	-	99.0	-	74	40	20	3.79-4.95
ZWS50AF5	5V	4.5-5.5	10.0	-	50.0	-	75	40	20	5.75-7.00
ZWS75AF5	5V	4.5-5.5	15.0	-	75.0	-	75	40	20	5.75-7.00
ZWS100AF5	5V	4.5-5.5	20.0	-	100.0	-	75	40	20	5.75-7.00
ZWS150AF5	5V	4.5-5.5	30.0	-	150.0	-	77	40	20	5.75-7.0
ZWS50AF12	12V	10.8-13.2	4.3	5.2	51.6	62.4	78	96	48	13.8-16.2
ZWS75AF12	12V	10.8-13.2	6.3	7.5	75.6	90.0	78	96	48	13.8-16.2
ZWS100AF12	12V	10.8-13.2	8.5	10.0	102.0	120.0	79	96	48	13.8-16.2
ZWS150AF12	12V	10.8-13.2	12.5	15.0	150.0	180.0	79	96	48	13.8-16.2
ZWS50AF15	15V	13.5-16.5	3.5	4.2	52.5	63.0	79	120	60	17.3-20.3
ZWS75AF15	15V	13.5-16.5	5.0	6.0	75.0	90.0	79	120	60	17.3-20.3
ZWS100AF15	15V	13.5-16.5	6.7	8.0	100.5	120.0	79	120	60	17.3-20.3
ZWS150AF15	15V	13.5-16.5	10.0	12.0	150.0	180.0	81	120	60	17.3-20.3
ZWS50AF24	24V	21.6-26.4	2.1	2.6	50.4	62.4	81	150	96	27.6-32.4
ZWS75AF24	24V	21.6-26.4	3.2	3.8	76.8	91.2	82	150	96	27.6-32.4
ZWS100AF24	24V	21.6-26.4	4.3	5.0	103.2	120.0	81	150	96	27.6-32.4
ZWS150AF24	24V	21.6-26.4	6.3	7.5	151.2	180.0	82	150	96	27.6-32.4
ZWS75AF36	36V	32.4-39.6	2.1	2.5	75.6	90.0	82	200	144	41.4-48.6
ZWS100AF36	36V	32.4-39.6	2.8	3.4	100.8	122.4	82	200	144	41.4-48.6
ZWS150AF36	36V	32.4-39.6	4.2	5.0	151.2	180.0	82	200	144	41.4-48.6
ZWS75AF48	48V	43.2-52.8	1.6	1.9	76.8	91.2	82	240	192	55.2-64.8
ZWS100AF48	48V	43.2-52.8	2.1	2.5	100.8	120	82	240	192	55.2-64.8
ZWS150AF48	48V	43.2-52.8	3.2	3.8	153.6	182.4	82	240	192	55.2-64.8

Derating - Convection Cooling					
Model	40°C	45°C	50°C	55°C	60°C
ZWS50AF	100%	100%	100%	85%	70%
ZWS75AF	100%	100%	100%	85%	70%
ZWS100AF	100%	100%	100%	80%	60%
ZWS150AF	100%	87%	75%	62%	50%

Options	
Suffix	Description
-	Molex Input & Output Connectors
/A	With cover & L Bracket
/J	JST Input & Output Connectors
/JA	JST Connectors & Cover

ZWS-AF Outline Drawings

