

Single Output Low Cost, Worldwide Use

- ◆ Universal Input (85 - 265VAC)
- ◆ Power factor Corrected (>50W)
- ◆ Input transient protected
- ◆ 2 year warranty
- ◆ High quality design
- ◆ Peak Power capability



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 Features and Benefits

Feature

- ◆ Input Transient Protected
- ◆ 2 Year Warranty
- ◆ Power Factor Corrected
- ◆ Peak Power capability

Benefit

- ◆ Withstands harsh environments
- ◆ Lower Cost of Ownership
- ◆ Supports Global Use
- ◆ Can drive high current start up devices

Specifications

MODELS		ZWS5 ZWS10	ZWS15 ZWS30	ZWS50	ZWS75 ZWS100	ZWS120	ZWS150
AC Input Voltage range	-	85-265VAC (47-440Hz)			85-132 / 170-265VAC (47-63Hz)		
DC Input Voltage range	-	110 - 330VDC					
Inrush Current (100/200VAC) (1)	A	15 / 30			30 / 30		
Power Factor (Passive)	-	None			Meets EN61000-3-2 (Class D)		
Temperature Coefficient	-	<0.02%/°C					
Overcurrent Protection (2)	-	~125%			~130%	~205%	~130%
Overvoltage Protection	V	~140% diode clamp		~115 - 130%, manual reset			
Hold Up Time (Typ) @ 100VAC	ms	17					
Remote Sense	-	None					
Operating Temperature (3)	-	(open frame)	-10°C~+60°C, derate linearly to 70% load from 50°C~60°C				
Operating Temperature	-	(with cover)	Additional derating applies, please consult Installation Manual				
Storage Temperature	-	-30 to +85°C					
Humidity (non condensing)	-	10 - 95% RH					
Cooling	-	Convection					Forced(4)
Withstand Voltage	-	Input to Ground 2kVAC (20mA), Input to Output 3kVAC (20mA), Output to Ground 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, CE Mark					
Conducted & Radiated	EM	EN55022-B, FCC Class B, VCCI-B					
Recommended EMI Filter	-	MAW12R5-22	MAW1201-22 MAW1202-22	MAW1202-22	MAW1203-22	MB1206	MB1206
Weight (Typ)	g	120/120	140/270	370	500/600	650	800
Size (WxHxD)	mm	See Outline Drawings					
Warranty	-	2 years					

Notes:

(1) 25C ambient (cold start)

(2) Avoid prolonged operation in overload

(3) ZWS100 -10C to 60C, derate linearly to 60% load from 50C to 60C

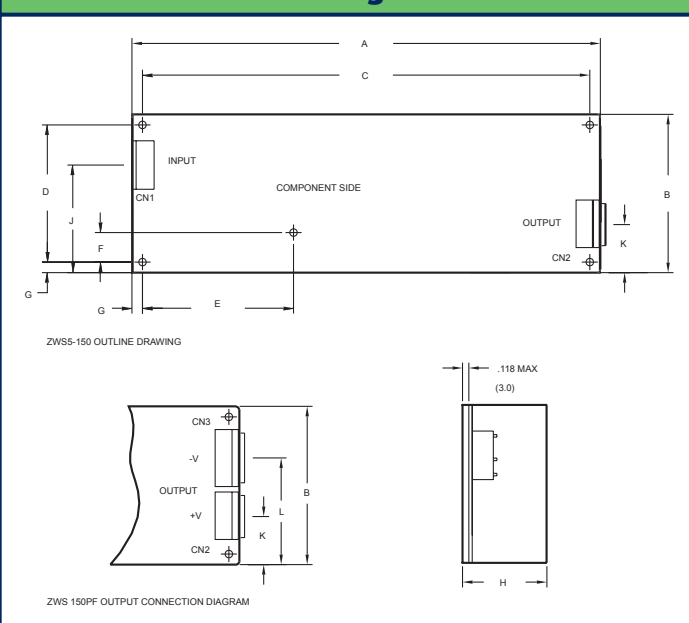
(4) 0.7m/s forced air required, consult installation manual for derating with convection cooling.

Output Ratings

Model	Voltage	Adjust Range	Max Curr. A	Peak Curr. A	Load Reg mV	Line Reg mV	Ripple Noise mV	Eff. %
ZWS5-3	3.3V	2.97-3.63	1	1.2	40	20	120	62
ZWS10-3	3.3V	2.97-3.63	2	2.4	40	20	120	62
ZWS15-3	3.3V	2.97-3.63	3	3.6	40	20	120	63
ZWS30-3	3.3V	2.97-3.63	6	7.2	40	20	120	70
ZWS50-3	3.3V	2.97-3.63	10	12	40	20	120	73
ZWS75PF-3	3.3V	2.97-3.63	15	18	40	20	120	70
ZWS100PF-3	3.3V	2.97-3.63	20	24	40	20	120	72
ZWS150PF-3	3.3V	2.97-3.63	30	36	40	20	120	72
ZWS5-5	5V	4.5-5.5	1	1.2	40	20	120	67
ZWS10-5	5V	4.5-5.5	2	2.4	40	20	120	70
ZWS15-5	5V	4.5-5.5	3	3.6	40	20	120	71
ZWS30-5	5V	4.5-5.5	6	7.2	40	20	120	75
ZWS50-5	5V	4.5-5.5	10	12	40	20	120	77
ZWS75PF-5	5V	4.5-5.5	15	18	40	20	120	75
ZWS100PF-5	5V	4.5-5.5	20	24	40	20	120	78
ZWS150PF-5	5V	4.5-5.5	30	36	40	20	120	78
ZWS5-12	12V	10.8-13.2	0.42	0.51	96	48	150	68
ZWS10-12	12V	10.8-13.2	0.85	1.02	96	48	150	70
ZWS15-12	12V	10.8-13.2	1.25	1.5	96	48	150	71
ZWS30-12	12V	10.8-13.2	2.5	3	96	48	150	77
ZWS50-12	12V	10.8-13.2	4.3	5.16	96	48	150	80
ZWS75PF-12	12V	10.8-13.2	6.3	7.5	96	48	150	77
ZWS100PF-12	12V	10.8-13.2	8.5	10	96	48	150	80
ZWS150PF-12	12V	10.8-13.2	12.5	15	96	48	150	80
ZWS5-15	15V	13.5-16.5	0.34	0.41	120	60	150	68
ZWS10-15	15V	13.5-16.5	0.7	0.84	120	60	150	71
ZWS15-15	15V	13.5-16.5	1	1.2	120	60	150	71
ZWS30-15	15V	13.5-16.5	2	2.4	120	60	150	77
ZWS50-15	15V	13.5-16.5	3.5	4.2	120	60	150	81
ZWS75PF-15	15V	13.5-16.5	5	6	120	60	150	78
ZWS100PF-15	15V	13.5-16.5	6.7	8	120	60	150	80
ZWS150PF-15	15V	13.5-16.5	10	12	120	60	150	80
ZWS5-24	24V	21.6-26.4	0.22	0.27	150	96	200	70
ZWS10-24	24V	21.6-26.4	0.45	0.54	150	96	200	71
ZWS15-24	24V	21.6-26.4	0.65	0.78	150	96	200	71
ZWS30-24	24V	21.6-26.4	1.3	1.56	150	96	200	78
ZWS50-24	24V	21.6-26.4	2.1	2.52	150	96	200	82
ZWS75PF-24	24V	21.6-26.4	3.2	3.8	150	96	200	80
ZWS100PF-24	24V	21.6-26.4	4.3	5	150	96	200	82
ZWS120PPF-24	24V	21.6-26.4	5	10	120	24	240	84
ZWS150PF-24	24V	21.6-26.4	6.3	7.5	200	96	200	82
ZWS30-36	36V	32.4-39.6	0.9	1.08	240	144	300	78
ZWS50-36	36V	32.4-39.6	1.4	1.68	240	144	300	82
ZWS75PF-36	36V	32.4-39.6	2.1	2.5	240	144	300	80
ZWS100PF-36	36V	32.4-39.6	2.8	3.4	240	144	300	82
ZWS120PPF-36	36V	32.4-39.6	3.4	6.7	180	36	360	84
ZWS150PF-36	36V	32.4-39.6	4.2	5	240	144	300	82
ZWS30-48	48V	43.2-52.8	0.7	0.84	300	192	400	78
ZWS50-48	48V	43.2-52.8	1.1	1.32	300	192	400	82
ZWS75PF-48	48V	43.2-52.8	1.6	1.9	300	192	400	80
ZWS100PF-48	48V	43.2-52.8	2.1	2.5	300	192	400	82
ZWS150PF-48	48V	43.2-52.8	3.2	3.8	300	192	400	82

Note for Peak Current: For 10s maximum, 35% duty cycle, average power not to exceed maximum ratings.

ZWS Outline Drawing



DIMENSIONS:

MODEL	A	B	C	D	E	F	G	H	J	K	L
ZWS5	3.86 (98.0)	1.77 (44.9)	3.580 (90.9)	1.500 (38.1)	-	-	.14 (3.5)	.83 (21.0)	1.05 (26.6)	.54 (13.7)	-
ZWS10	4.14 (105.1)	1.97 (50.0)	3.860 (98.0)	1.690 (42.9)	-	-	.14 (3.5)	.83 (21.0)	.99 (25.1)	.67 (18.4)	-
ZWS15	4.93 (125.2)	1.97 (50.0)	4.650 (118.1)	1.690 (42.9)	-	-	.14 (3.5)	.83 (21.0)	1.04 (26.5)	.57 (14.4)	-
ZWS30	5.24 (133.0)	2.17 (55.1)	4.850 (123.1)	1.770 (45.0)	-	-	.20 (5.0)	1.02 (25.9)	.20 (31.0)	1.16 (40.2)	-
ZWS50	7.68 (195.0)	2.17 (55.1)	7.290 (185.1)	1.770 (45.0)	-	-	.20 (5.0)	1.02 (25.9)	1.32 (33.5)	.72 (18.2)	-
ZWS75	8.74 (221.9)	2.17 (55.1)	8.350 (212.0)	1.770 (45.0)	3.330 (84.5)	-	.20 (5.0)	1.38 (35.0)	1.04 (26.4)	.88 (22.3)	-
ZWS100	8.74 (221.9)	2.44 (62.0)	8.350 (212.0)	2.050 (52.0)	3.230 (82.0)	280 (7.1)	.20 (5.0)	1.38 (35.0)	1.01 (25.6)	1.07 (27.2)	-
ZWS120	8.188 (208.0)	3.149 (80.0)	7.795 (198.0)	2.755 (70.0)	3.031 (77.0)	.748 (19.0)	(5.0)	1.574 (40.0)	1.043 (26.5)	1.850 (47.0)	-
ZWS150	8.74 (221.9)	2.95 (74.9)	8.350 (212.0)	2.560 (65.0)	2.930 (74.4)	.550 (13.9)	.20 (5.0)	1.58 (40.1)	2.12 (53.9)	.93 (23.5)	1.98 (50.3)

Options

Suffix	Description
-	Molex Terminals (N/A on ZWS120PPF)*
/A	Cover option
/J	JST Connectors (N/A on ZWS120PPF)
/JA	JST Connectors & Cover (N/A on ZWS120PPF)

Note: * Standard US stock item.

Other Lambda Industrial Products

VSB/VSC SC	5W to 150W Single output 115VAC input 30W to 150W Single, Dual, Triple and Quad output
RWS	15W & 30W Single output
JWS, JWS-P & JWT	50W to 600W Single and triple output

For Additional Information, please visit www.lambdapower.com/products/zws-series.htm