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ZWS Series

Worldwide, low cost power supplies

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Lambda's ZWS Series of single output power supplies is a PCB style power supply with continuous wide range or auto-ranging AC input. They are engineered to EN61000-4 (-2,-3,-4,-5,-6), and models from 75 watts and above include a built-in passive filter to meet the Power Factor & Harmonic Correction requirements of EN61000-3-2 with radiated and conducted EMI to curve B.



Available in nine package sizes from 5 to 150 watts with output voltages from 3.3 to 48 volts using high performance components, Lambda's ZWS Series will prove to be the economical choice for high reliability and quality, ensuring maximum up-time. For global applications, the ZWS has been designed with the global market in mind featuring world-wide safety approvals including: UL1950, CSA950, EN60950 and will carry the CE Mark.

Power Factor & Harmonic Correction

Input Transient Protection

Radiated & Conducted EMI per EN55022-B & FCC Class B.

Universal AC Input

Output Adjustment (10%)

High Quality Design

Worldwide Safety Agency Approvals

High Current Capability on the _PPF Version for Thermal Printer Applications

Lambda's 2 year Warranty

ZWS Series Available Models

OUTPUT	POWER	MAX CURRENT AMPS AT			MODEL
		40°	50°	60°	
3.3V	3.3W	1	1	.7	ZWS5-3
3.3V	6.6W	2	2	1.4	ZWS10-3
3.3V	9.9W	3	3	2.1	ZWS15-3
3.3V	19.8W	6	6	4.2	ZWS30-3
3.3V	33W	10	10	7	ZWS50-3
3.3V	49.5W	15	15	10.5	ZWS75PF-3
3.3V	66W	20	20	12	ZWS100PF-3
3.3V	99W	30	30	21	ZWS150PF-3
5V	5W	1	1	.7	ZWS5-5
5V	10W	2	2	1.4	ZWS10-5
5V	15W	3	3	2.1	ZWS15-5
5V	30W	6	6	4.2	ZWS30-5
5V	50W	10	10	7	ZWS50-5
5V	75W	15	15	10.5	ZWS75PF-5
5V	100W	20	20	12	ZWS100PF-5
5V	150W	30	30	21	ZWS150PF-5

12V	5W	.42	.42	.3	ZWS5-12
12V	10W	.85	.85	.6	ZWS10-12
12V	15W	1.25	1.25	.87	ZWS15-12
12V	30W	2.5	2.5	1.75	ZWS30-12
12V	51W	4.3	4.3	3	ZWS50-12
12V	76W	6.3	6.3	4.4	ZWS75PF-12
12V	102W	8.5	8.5	5.1	ZWS100PF-12
12V	150W	12.5	12.5	8.5	ZWS150PF-12
15V	5W	.34	.34	.24	ZWS5-15
15V	10W	.7	.7	.5	ZWS10-15
15V	15W	1	1	.7	ZWS15-15
15V	30W	2	2	1.4	ZWS30-15
15V	50W	3.5	3.5	2.5	ZWS50-15
15V	75W	5	5	3.5	ZWS75PF-15
15V	100W	6.7	6.7	4	ZWS100PF-15
15V	150W	10	6	7	ZWS150PF-15
24V	5W	.22	.22	.15	ZWS5-24
24V	10W	.45	.45	.3	ZWS10-24
24V	15W	.65	.65	.45	ZWS15-24
24V	31W	1.3	1.3	.91	ZWS30-24
24V	50W	2.1	2.1	1.47	ZWS50-24
24V	76W	3.2	3.2	2.24	ZWS75PF-24
24V	103W	4.3	4.3	2.6	ZWS100PF-24
24V	120W	5	5	3.5	ZWS120PPF-24
24V	151W	6.3	6.3	4.4	ZWS150PF-24
36V	32W	.9	.9	.63	ZWS30-36
36V	50W	1.4	1.4	.98	ZWS50-36
36V	75W	2.1	2.1	1.47	ZWS75PF-36
36V	100W	2.8	2.8	1.68	ZWS100PF-36
36V	122W	3.4	3.4	2.38	ZWS120PPF-36
36V	151W	4.2	4.2	2.94	ZWS150PF-36
48V	33W	.7	.7	.49	ZWS30-48
48V	52W	1.1	1.1	.77	ZWS50-48
48V	76W	1.6	1.6	1.12	ZWS75PF-48
48V	100W	2.1	2.1	1.26	ZWS100PF-48
48V	153W	3.2	3.2	2.24	ZWS150PF-48

* ZWS150 current ratings are with 0.7m/s forced air cooling.

Check Stock to Buy:

Model Number

ZWS Series Specifications

AC Input	ZWS5 to ZWS50: 85-265VAC, 47-440Hz, ZWS75 to ZWS150PF: 85-132, 170-265VAC, 47-63Hz (Autostrap).
DC Input	ZWS5 to ZWS50: 110-330VDC.
Efficiency	Dependent upon model type @ 100VAC, 100% load, 25°C ambient : Examples:
Power Factor Correction	ZWS75 to ZWS150PF, Conforms to EN61000-3-2 Class D.
Input Transient Protection	EN61000-4-2, -3, -4, -5, -6.
Inrush Current Limiting	25°C ambient, cold start ZWS5 to ZWS50, 15A @ 100VAC, 30A @ 200VAC. ZWS75 to ZWS150, 30A @ 100/200VAC.
EMI	Conforms to EN55022 Curve B, FCC Class B, VCC1-2.
Output Voltage Adj Range	±10%.

Line Regulation	20mV for 3.3 & 5V, 48mV for 12V, 60mV for 15V, 96mV for 24V, 144mV for 36V, 192mV for 48V. Except ZWS120PPF: 24mV for 24V, 36mV for 36V.
Load Regulation	40mV for 3.3 & 5V, 96mV for 12V, 120mV for 15V, 150mV for 24V, 240mV for 36V, 300mV for 48V. Except ZWS120PPF: 120mV for 24V, 180mV for 36V.
Minimum Load	None.
Ripple and Noise	120mV for 3.3 & 5V, 150mV for 12, 15V; 200mV for 24V, 300mV for 36V, 400mV for 48V. Except ZWS120PPF: 240mV for 24V, 360mV for 36V.
Hold-up Time	17ms @ 100VAC, 25°C and @ maximum average output power.
Overcurrent Protection	Current limiting with automatic recovery. Avoid prolonged operation in overload or dead short. ZWS5 to ZWS50, ~125%. ZWS75, ZWS100 & ZWS150, ~130%. ZWS120, ~205%.
Overvoltage Protection	ZWS5 to ZWS30, output clamped by zener diode ~ 140%. ZWS50 to ZWS150, converter shutdown, manual input reset ~ 125%.
Cooling	Natural Convection, See Tables.
Operating Temperature Range	-10°C to +60°C.
Storage Temperature	-30°C to +85°C.
Temperature Coefficient	Typically less than 0.02%.
Humidity	10% to 90% RH (non-condensing).
Isolation	Input to Output - 3.0kVAC. Input to Chassis (FG) - 2.0kVAC. Output to Chassis (FG) - 500VAC for 1 minute.
Isolation Resistance	Output to Chassis (FG) - >100MΩ @ 25°C and 70% RH.
Remote Sensing	None.
Input and Output Connections	Molex or JST option
Safety Agency Approval	UL1950, CSA950, EN60950, Dentori, CE Mark.
Options	/J JST input & output connectors in place of Molex.
Warranty	2 years.

Similar Series

JWS Chassis and Barrier Strips
 SV Higher Power
 SWT Multiple Output
 VSB Lower Cost 85-132VAC

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