

Excellent Integrated System Limited

Stocking Distributor

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[TDK-Lambda Americas, Inc.](#)
[ZMS10012](#)

For any questions, you can email us directly:

sales@integrated-circuit.com

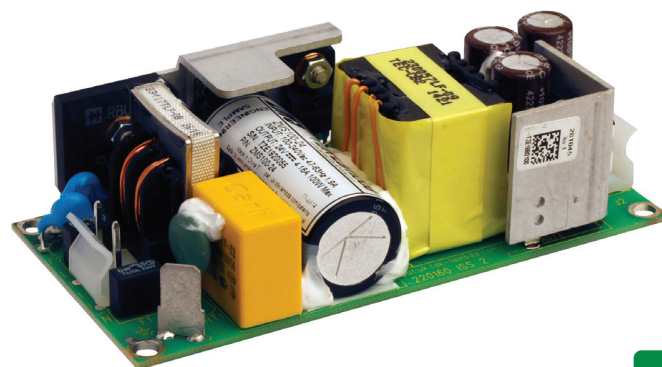
TDK-Lambda

ZMS100 Series

100W, 2 x 4" AC-DC Power Supplies

Features

- ◆ 80W Convection, 100W with Forced Air
- ◆ Long e-cap lifetime
- ◆ Compact 2 x 4 inch footprint
- ◆ Medical approval with 2 x MoPP isolation
- ◆ Suitable for Class I and Class II installations
- ◆ Ceramic start-up cap



Key Market Segments & Applications



Specifications ⁽¹⁾

Model	ZMS100	
AC Input Voltage range (2) (4)	-	85 - 264VAC (47-63Hz) 120 - 350VDC
Input Fusing	-	Line and neutral
Input Current (Typ) (230V/115VAC)	A	1.0 / 2.0
Inrush Current - cold start	A	<40 (max at 264Vac input)
Harmonic Compliance	-	Compliant to EN/IEC61000-3-2 class A Temperature Coefficient - <0.02% / °C
Typical Hold Up Time at 80W load, 115/230VAC	ms	22 / 108
Typical Hold Up Time at 100W load, 115/230VAC	ms	16 / 84 (see graphs for more detail)
Leakage Current	µA	<100µA at 100V 60Hz input, <250µA at 230V 50Hz
Touch Current (enclosure leakage)	µA	<100 µA
Cooling	-	80W with convection cooling, 100W max. with forced air cooling (see airflow rate graphs)
Efficiency	-	Up to 90% (see efficiency curves)
Operating Temperature	°C	-20°C to +70°C, derate linearly to 50% load from 50°C to 70°C
Storage Temperature	°C	-40°C to +85°C
Operational Altitude	-	5000m
Overcurrent Protection	-	hiccup (auto recovery)
Overvoltage Protection	-	Latching (unit shutdown, recycle mains to restart)
No Load Input Power at 230VAC	W	<0.5
Average Active Efficiency	%	>87
Humidity (non condensing)	RH	Operating and storage : 5 - 95% (non-condensing)
Withstand Voltage	-	Input to output 4kVac 2x MoPP, 1.5kVac input to ground 1x MoPP, 1.5kVac output to ground 1 x MoPP
Isolation Resistance	-	>100MΩ at 25°C & 70%RH
Isolation Class (3)	-	Construction suitable for Class II installations
Vibration	-	10 to 500Hz at 2G, EN60068-2-6 19,6m/s ² Constant, X, Y, Z 1 hour each.
Shock	-	30G EN60068-2-27, -47, MIL-STD-810E
Approvals	-	IEC/EN/UL 60950-1, CSA22.2 No. 60950-1, IEC/EN 60601-1 (2nd & 3rd editions) CE mark Designed to meet IEC/EN/UL/CSA 61010-1, ANSI/AAMI ES60601-1:2005 (r) 2012 CQC safety standard GB4943.1-2011 (pending) ZMS100-12, 15 and 24 type tested to EN60335-1
Conducted & Radiated EMI	-	EN55011 / EN55022 level B conducted, level A radiated
Immunity (5)	-	EN 61000-4-2 (Level 3 criteria A) -3 (Level 3 criteria A) -4 (Level 3 criteria A), -5 (Level 3 criteria A), -6 (Level 3 criteria A), -8 (Level 3 criteria A), -11(class 3), -12(level 3) Meets the requirements of EN60601-1-2:2007 (as applicable to a component power supply)
Weight (Typ)	g	150
Size (W x L x H)	mm	50.8 x 101.6 x 31.9 (2" x 4" x 1.25")
Warranty	yrs	3
Connectivity	-	Molex as standard with separate ground faston Input Molex 10-63-4027, output Molex 09-65-2048

- Note: 1. Specification parameters apply at 25°C ambient temperature unless stated otherwise.
2. For 12V & 15V unit derate from 100% at 100V to 90% at 90V and to 80% at 85V, for 24V, 36V, & 48V unit derate from 100% at 90V to 90% at 85V. (convection and forced air ratings) .
3. ZMS100 uses Y1 capacitors to earth.
4. Consult Sales Office for use under DC Input conditions
5. Criteria B for dips and interruptions, contact technical support for full details.

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ZMS100 Series

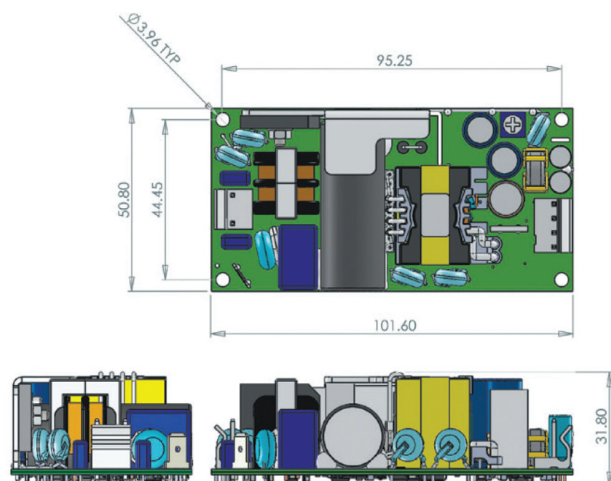
Model Selector

Model	Nominal Output Voltage (V)	Output Adjust Range (V)	Maximum Current Convection (A)	Maximum Current Forced Air (A)	Maximum Output Power Convection (W)	Maximum Output power Forced Air (W)	Ripple (6) and noise (mv pk-pk)	Load Reg from 0 - full load (mv)	Line Reg from 85-264Vac (mv)
ZMS100-12	12	11.4 to 13.2	6.7	8.4	80.4	100.8	120	120	60
ZMS100-15	15	14.25 to 16.5	5.4	6.7	81.0	100.5	150	150	75
ZMS100-24	24	22.8 to 26.4	3.4	4.2	81.6	100.8	240	240	120
ZMS100-36	36	34.2 to 39.6	2.25	2.8	81.0	100.8	360	360	180
ZMS100-48	48	45.6 to 52.8	1.67	2.1	80.2	100.8	480	480	240

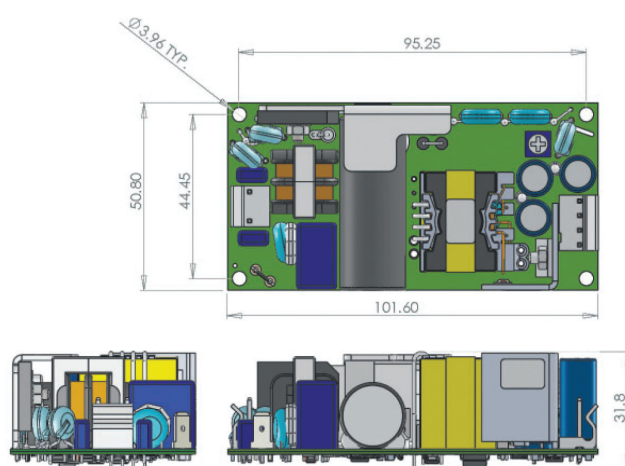
Note: 6. At 115VAC input 25°C

Outline Drawing

ZMS100 12 - 15V Series



ZMS100 24 - 48V Series



ZMS100 Series Pinout

J1	J2	J3
PIN Connection	PIN Connection	PIN Connection
1 Live	1 +VE	1 Earth
2 Not Connected	2 +VE	
3 Neutral	3 0V	
	4 0V	

ZMS100 Series Mating Parts

Connector	Housing	Crimp Pin	Manufacturer
J1	09-50-1031	08-70-1030	Molex
J2	09-50-1041	08-70-1030	Molex
J3	22-18AWG - 2-52047-2	-	Tyco
(Faston)	16-14AWG - 3-520408-2		

Other TDK-Lambda AC-DC Products

ZPSA20-60	20 to 60W single output
NV175	175W, 3x5", 1-5 outputs
ZWS	5 to 240W, single output
KPSA	5 to 15W, pcb mount
ZPD, ZPT	40W, 2x4" dual and triple outputs

For Additional Information, please visit
us.tdk-lambda.com/lp/products/zms-series.htm

