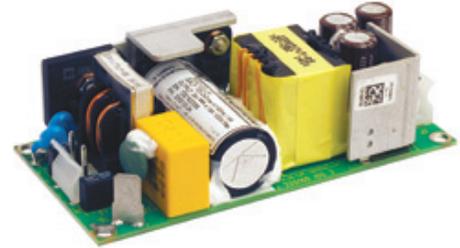




80W Convection, 100W Forced-Air Cooled Single Output Power Supplies

Features	Benefits
• Long e-cap lifetime	• Better field reliability and service life
• Compact 2 x 4 inch footprint	• Space saving in end equipment
• Medical approval with 2 x MoPP isolation	• Suitable for B and BF type medical equipment
• Suitable for Class I and Class II installations	• Flexible utilisation
• Ceramic start-up cap	• Eradicates start-up cap dry out problems

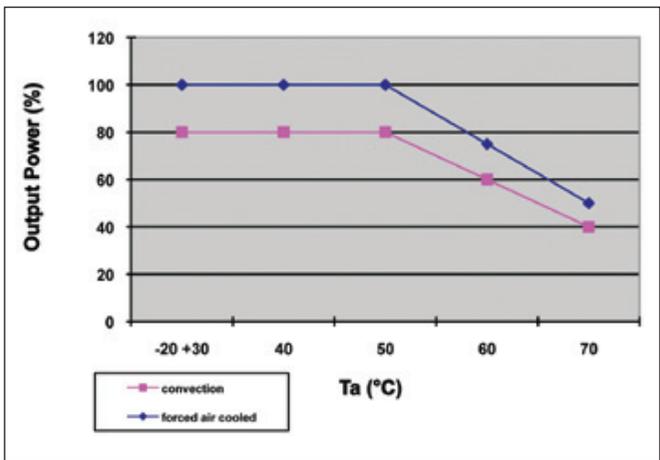


Specification (1)	
Model	ZMS100
AC Input Voltage range (3) (5)	- 85 - 264VAC (47-63Hz) 120 - 350VDC
Input Fusing	Line and neutral
Input Current (Typ) (230V/115Vac)	A 1.0 / 2.0
Inrush Current - cold start	A <40 (max at 264Vac input)
Harmonic Compliance	- Compliant to EN/IEC61000-3-2 class A
Temperature 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 (2)	°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 (4)	Construction suitable for Class II installations
Vibration	- 10 to 500Hz at 2G, EN610068-2-6 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)
Conducted & Radiated EMI	EN55011 / EN55022 level B conducted, level A radiated
Immunity	- 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)
Weight (Typ)	g 150
Size (W x L x H)	mm 50.8 x 101.6 x 31.9
Warranty	yrs 3
Connectivity	Molex as standard with separate ground faston Input Molex 10-63-4027, output Molex 09-65-2048

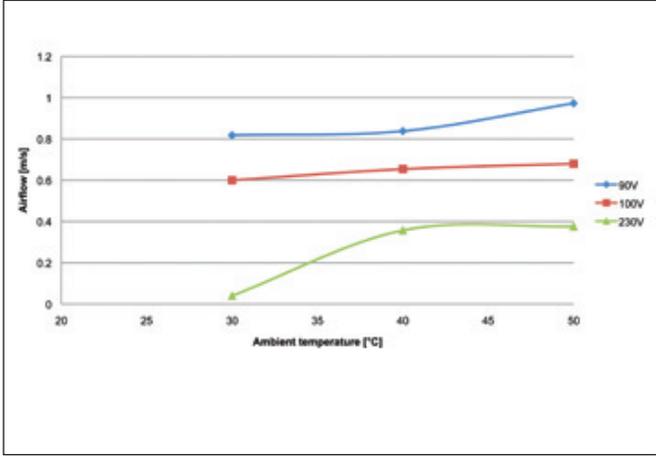
- Notes:**
1. Specification parameters apply at 25°C ambient temperature unless stated otherwise.
 2. Ripple & noise specification applies 0 to 70°C. Start up at -20°C.
 3. For 12V & 15V unit derate from 100% at 100V to 90% at 90V and to 80% at 85V, for 24V, 36V, & 48V unit derate from 100% at 90V to 90% at 85V. (convection and forced air ratings).
 4. ZMS100 uses Y1 capacitors to earth.
 5. Consult Sales Office for use under DC Input conditions

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)	Maximum Ripple & 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	240	120	60
ZMS100-15	15	14.25 to 16.5	5.4	6.7	81.0	100.5	300	150	75
ZMS100-24	24	22.8 to 26.4	3.4	4.2	81.6	100.8	480	240	120
ZMS100-36	36	34.2 to 39.6	2.25	2.8	81.0	100.8	720	360	180
ZMS100-48	48	45.6 to 52.8	1.67	2.1	80.2	100.8	960	480	240

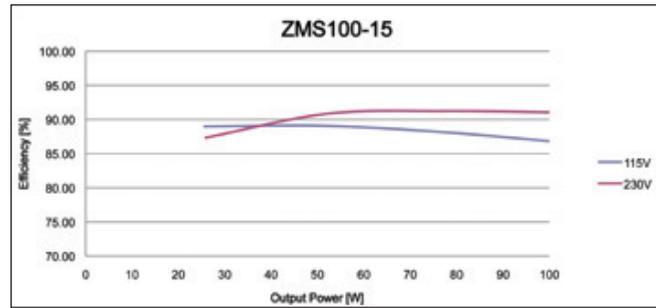
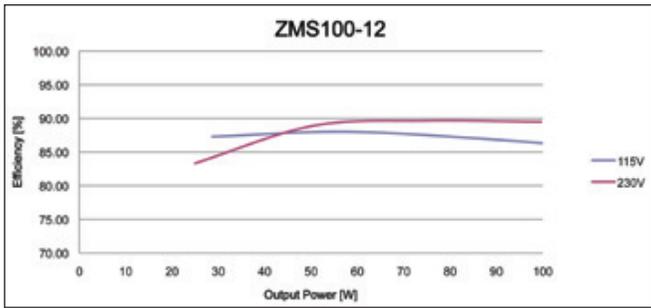
Output Derating ZMS100 Series Output



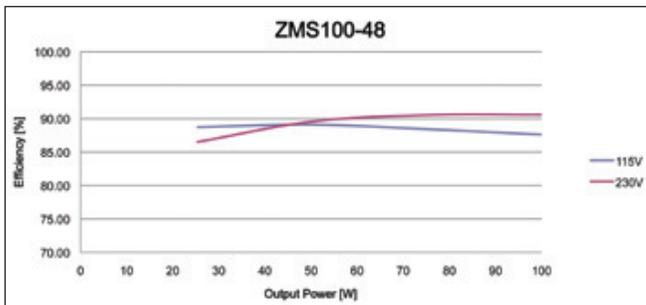
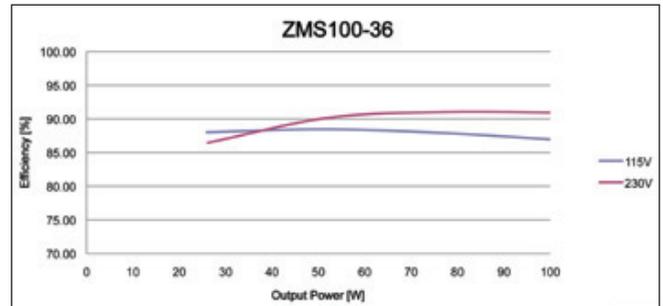
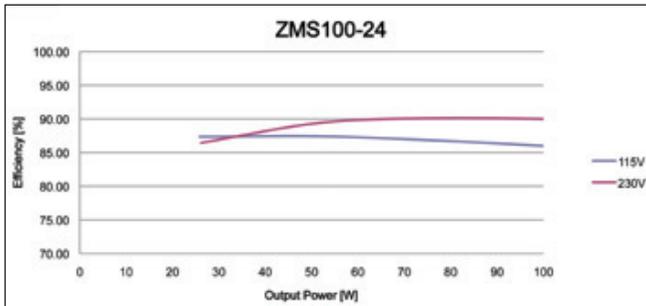
Minimum Required Airflow for ZMS100-24 at 100W



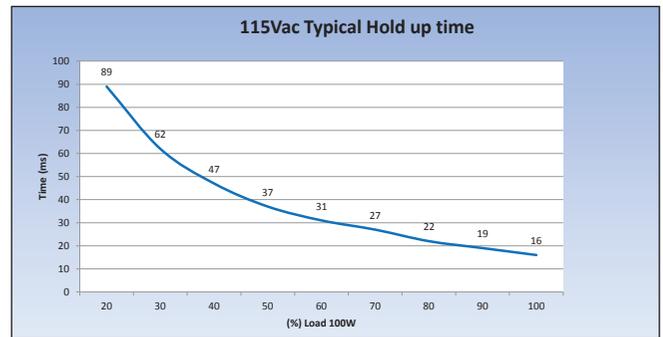
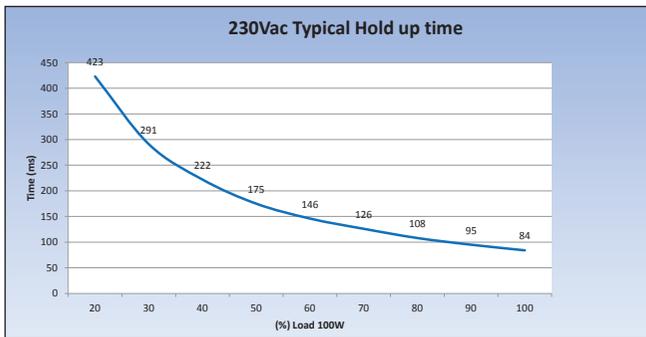
ZMS100 Series Efficiency Curves



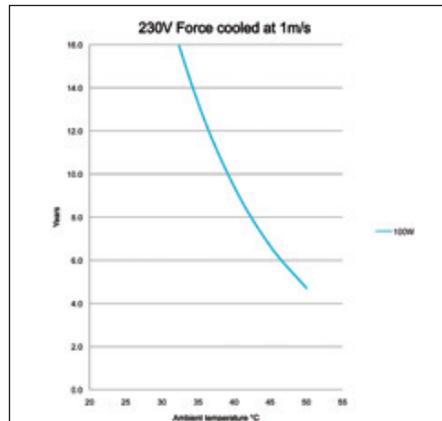
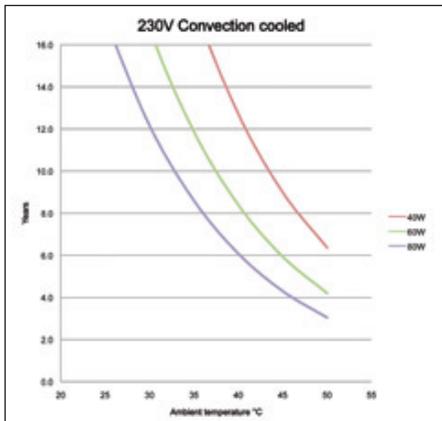
ZMS100 Series Efficiency Curves



Hold Up Time Characteristics for ZMS100 (12V)

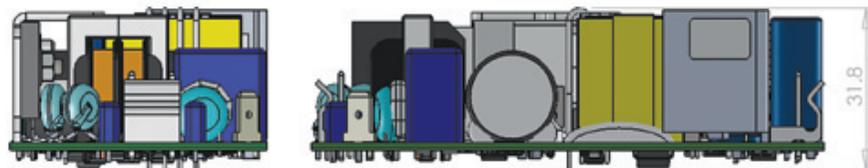
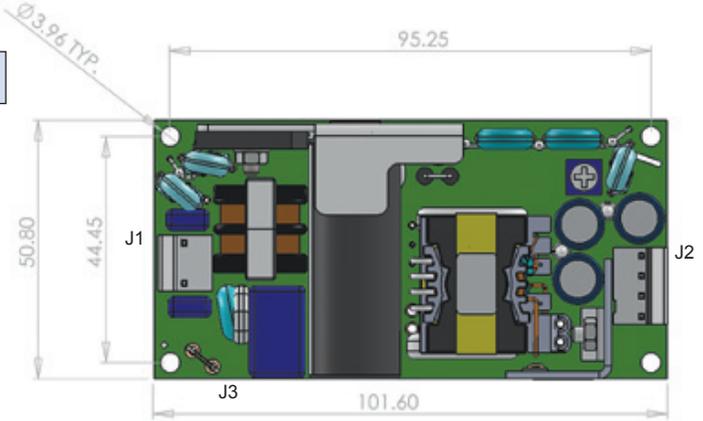


Electrolytic Capacitor: Example Life Curve

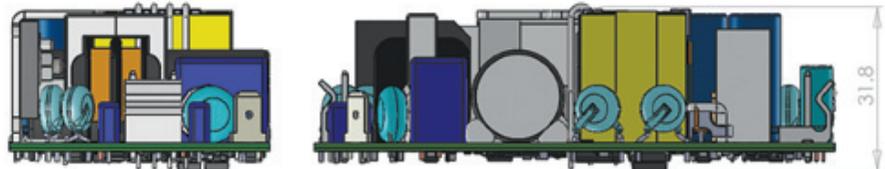
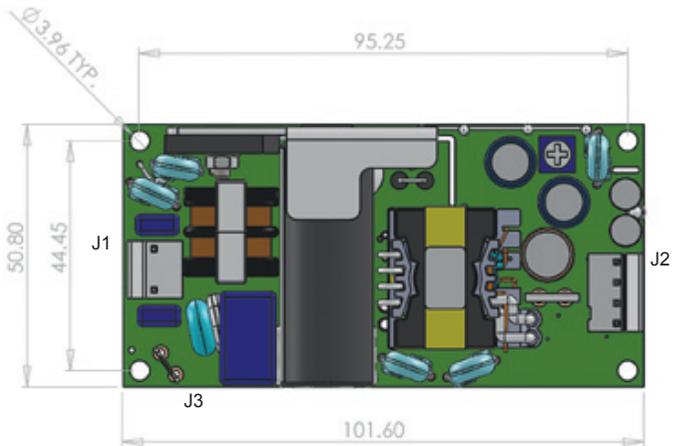


Notes: Based on ZMS100-12 bulk cap life estimates. Consult TDK-Lambda for other operating condition examples.

Outline Drawing ZMS100 24 - 48V Series



Outline Drawing ZMS100 12 - 15V Series



ZMS100 Series Pinout		
J1	J2	J3
PIN	Connection	PIN Connection
1	Neutral	1 0V
2	Not Connected	2 0V
3	Live	3 +VE
		4 +VE

ZMS100 Mating Parts			
Connector	Housing	Crimp Pin	Manufacturer
J1	09-50-1031	08-70-1030	Molex
J2	09-50-1041	08-70-1030	Molex
J3 (Faston)	22-18AWG - 2-520407-2 16-14AWG - 3-520408-2	-	Tyco

