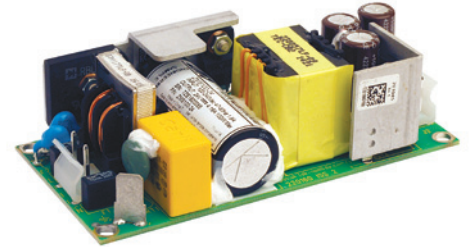




80W Convection, 100W Forced-Air Cooled Single Output Power Supplies

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 most medical equipment
• Suitable for Class I and Class II installations	• Flexible utilisation
• Ceramic start-up cap	• Eradicates start-up cap dry out problems



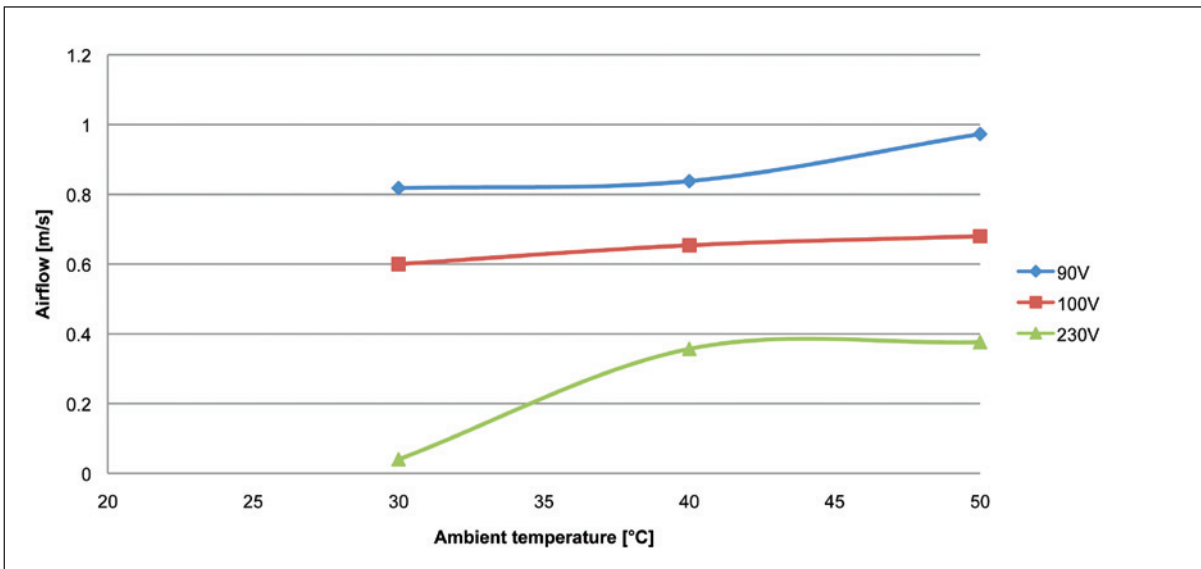
Specification (1)		
Model	ZMS100	
ITEMS		
AC Input Voltage range (3)	-	85 - 264VAC (47-63Hz)
Input Fusing		Line and neutral
Input Current (Typ) (230V/115Vac)	A	2.0 / 1.0
Inrush Current - cold start	A	<40 (max at 264Vac input)
Harmonic Compliance	-	Compliant to EN/IEC61000-3-2 class A
Temperature Coefficient	-	<0.02% / °C
Hold Up Time (Typ) at 230Vac input	ms	16
Leakage Current	uA	<100uA at 100V 60Hz input, <250uA at 230V 50Hz
Touch Current (enclosure leakage)	uA	<100 uA
Cooling	-	80W with convection cooling, 100W max. with forced air cooling (see airflow rate graphs)
Efficiency	-	Up to 89%
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 for EN60950-1, 3000m for EN60601-1
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 1x MoPP
Isolation Resistance	-	>100MΩ at 25°C & 70%RH
Isolation Class		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
Safety Approvals	-	IEC/EN 60950-1 and 60601-1 designed to meet 61010-1,
Conducted & Radiated EMI	-	ANSI/AAMI ES60601-1: 2005/(r) 2012 CQC safety standard GB4943.1-2011 (pending) 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.Linear power derating applies from 90V input to 85V input. Power output 90% of maximum (convection and forced air cooled ratings).

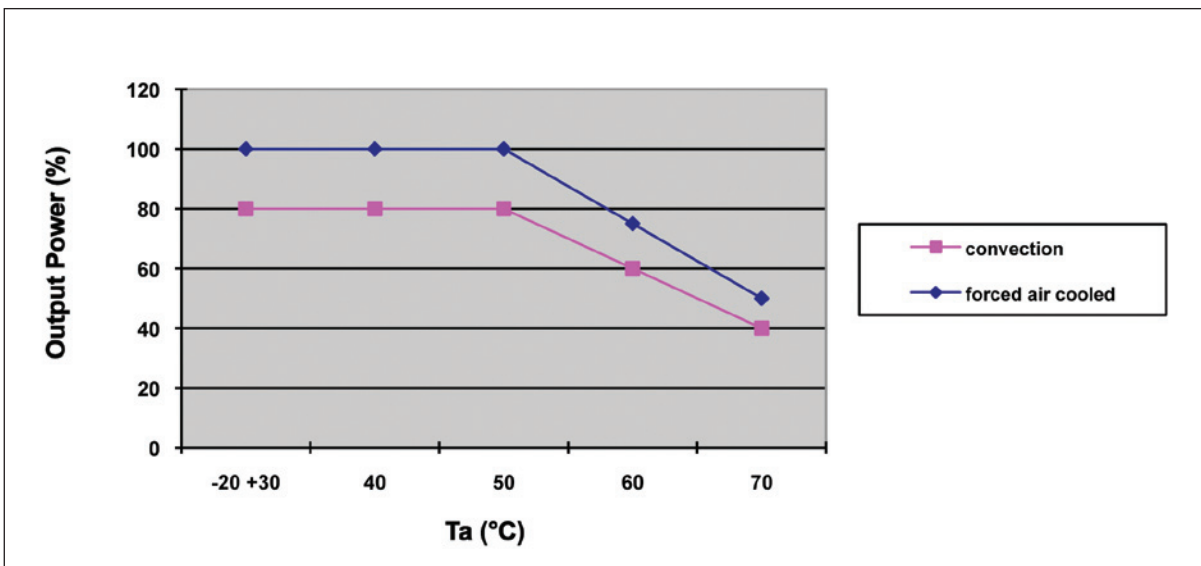
Model Selector

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 85-264V (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

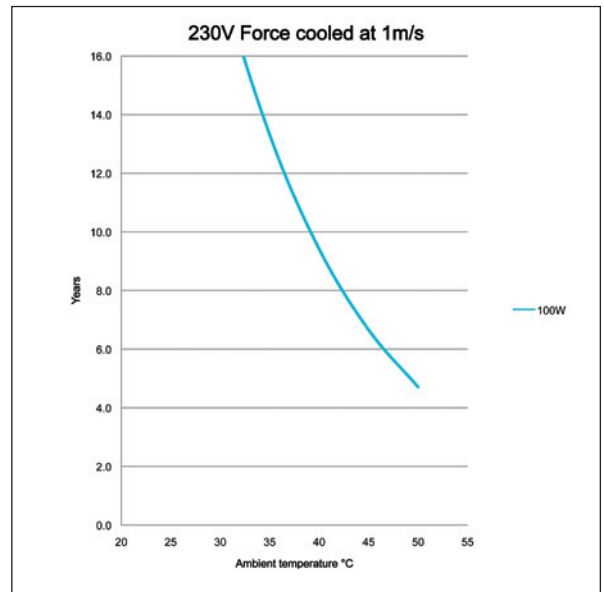
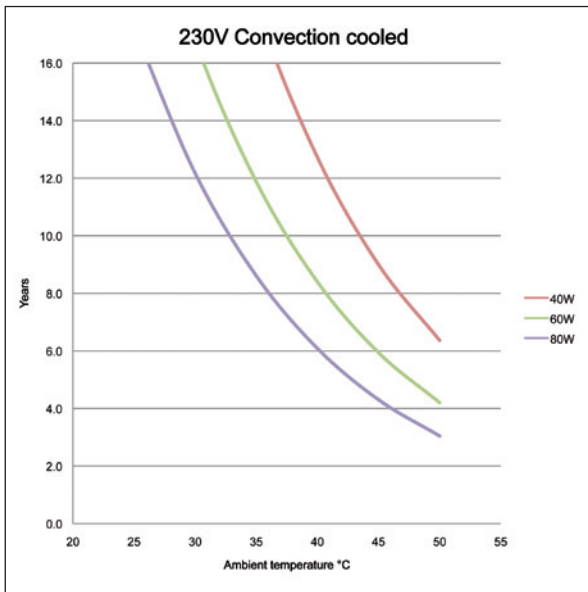
Minimum Required Airflow for ZMS100-24 at 100W Output



Output Derating ZMS100 Series



Electrolytic Capacitor: Example Life Curve



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

Outline Drawing ZMS100 24 - 48V Series

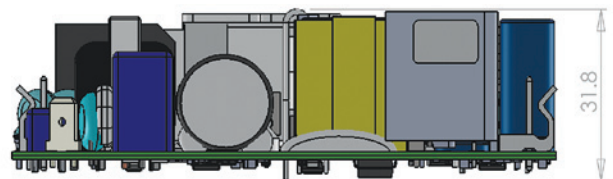
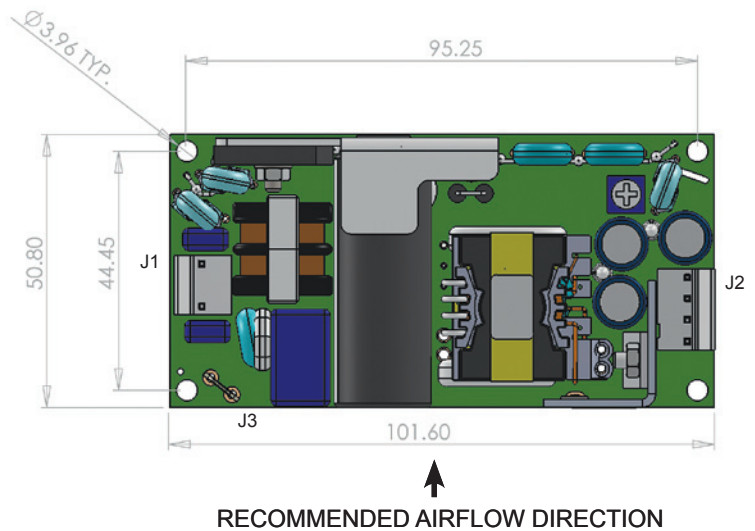
J1	
PIN	CONNECTION
1	NEUTRAL
2	NOT CONNECTED
3	LIVE

J2	
PIN	CONNECTION
1	0V
2	0V
3	+VE
4	+VE

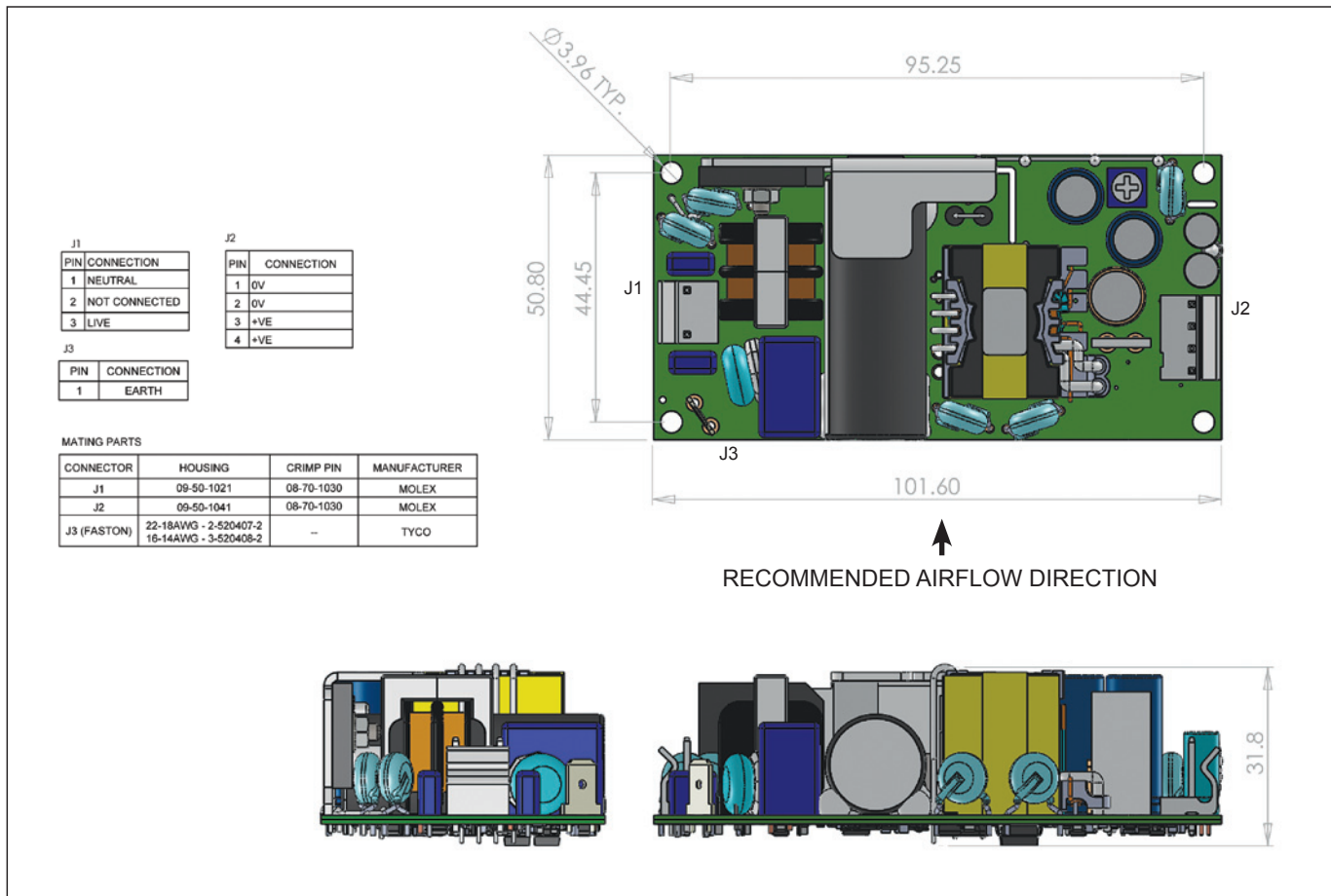
J3	
PIN	CONNECTION
1	EARTH

MATING PARTS

CONNECTOR	HOUSING	CRIMP PIN	MANUFACTURER
J1	09-50-1021	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



Outline Drawing ZMS100 12 - 15V Series





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