

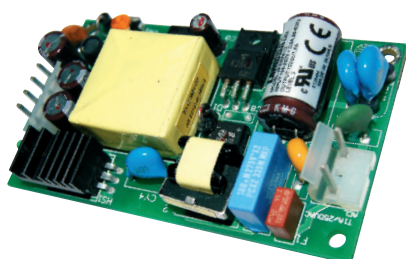
Технические характеристики на источники питания AC/DC серии ZPSA

По вопросам продаж и поддержки обращайтесь:

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Уфа (347)229-48-12
Ярославль (4852)69-52-93



ZPSA20 Series

2" x 3.5" 20W AC-DC

Power Supplies

- Wide Range AC Input
- Low Profile, Industry Standard Footprint
- Global Safety Agency Compliance
- RoHS Compliant

Key Market Segments & Applications

Video/Audio Routers

Datacom

Point of Sale

Test and Measurement

LED Signs and Lighting

ZPSA20 Features and Benefits

Features

- Industry Standard Footprint
- Up to 82% efficiency
- Broad Product Range
- Meets EN61000-4 Immunity

Benefits

- Available to Second Source
- Less System Heating
- Optimization of Power Supply to System
- Greater Reliability

Specifications

MODEL		ZPSA20
ITEMS		
Input Voltage range (1)	-	85 - 264VAC (47 - 440Hz) or 120 - 370VDC
Inrush Current	A	40A max at 240VAC input, 25°C ambient cold start,
Input Current (115/230VAC)	A	0.4 / 0.25
Leakage Current	mA	0.6mA maximum (264VAC, 60Hz)
Temperature Coefficient	-	±0.05%/°C
Voltage Accuracy	-	±1%
Minimum Load	A	None
Load Regulation	-	±1%
Line Regulation	-	±0.5%
Ripple & Noise (2)	mV	1% or 50mV whichever is greater
Short Circuit Protection	-	Continuous - hiccup mode
Overvoltage Protection	V	Typically 110-130% of nominal
Hold Up Time (Typ)	ms	12ms at 115VAC input
Operating Temperature		0 to +70°C with derating
Storage Temperature	-	-20 to +85°C
Humidity (non condensing)	-	10 - 95% RH
Cooling	-	Convection
Withstand Voltage		Input to Ground 1.5kVAC, Input to Output 3kVAC, Output to Ground 500VAC for 1 min.
Isolation Resistance		>100ΩM at 25°C & 70%RH, Output to Ground 500VDC
Vibration (non operating)		23.52m/s ² (10 - 55Hz: constant sweep 1 min X, Y, Z for 1 hour)
Shock	-	< 196.1 m/s ² (20G)
Safety Agency Approvals	-	UL60950, CSA60950, EN60950-1 Class 1, CE Mark (LVD)
Conducted & Radiated EMI	-	EN55022-B, FCC Class B
Immunity	-	EN61000-4-2,-3,-4,-6,-8
Weight (Typ)	g	100g
Size (WxLxH)	mm	88.9 X 50.8 X 20.32 (including underside components)
Warranty	yrs	2

Notes:

(1) Safety certified for 47 - 63Hz input only (2) Measured with 0.1μF ceramic & 10μF electrolytic at 20MHz BW

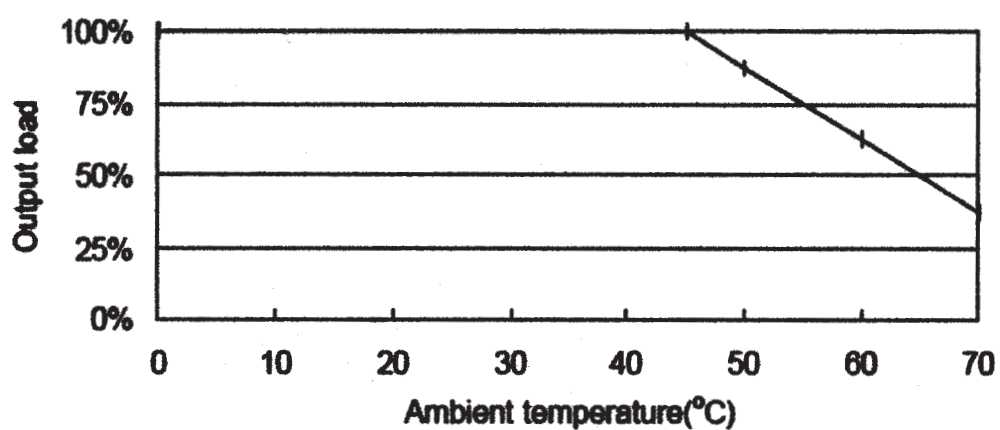
Model Selector

Model		Output Voltage (V)	Maximum Output (A)	Peak Load (A) (1)	Efficiency (2) (typ)%
ZPSA20-3R3	V1	3.3	4.4	6.6	74
ZPSA20-5	V1	5.0	4.4	6.6	77
ZPSA20-9	V1	9.0	2.4	4.0	80
ZPSA20-12	V1	12.0	1.8	2.7	80
ZPSA20-15	V1	15.0	1.4	2.1	80
ZPSA20-24	V1	24	0.9	1.4	82

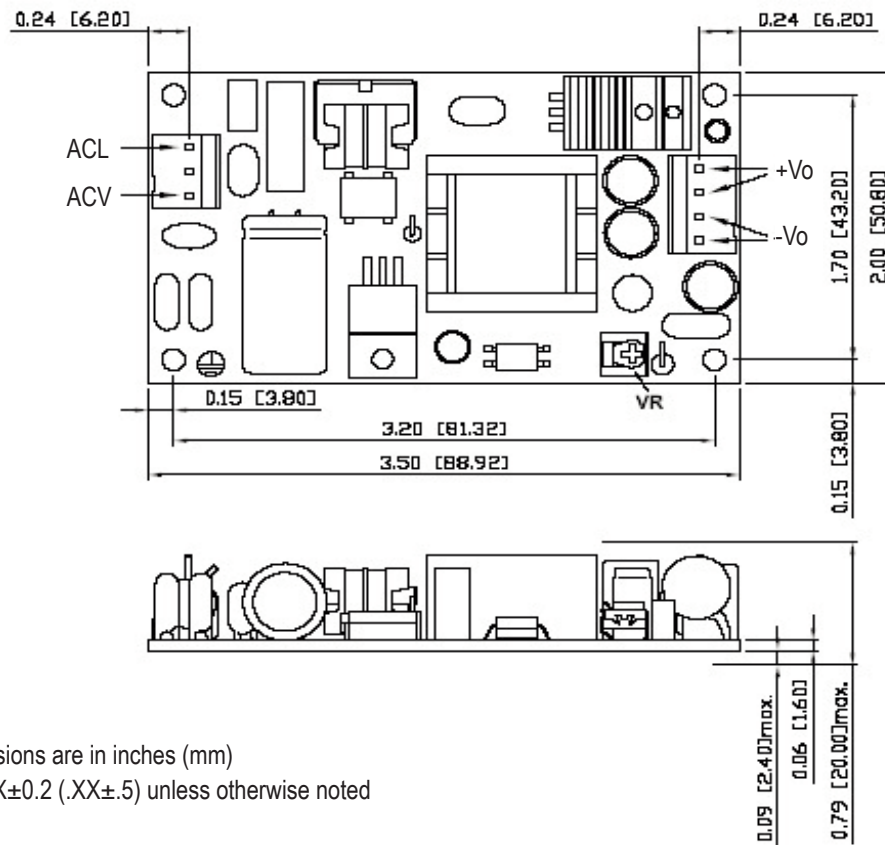
Notes: (1) Average not to exceed max power, <30s, 10% duty cycle (high line 240VAC)

(2) Preliminary Data

Derating Curve ZPSA20 Series



Outline Drawing ZPSA20 Series

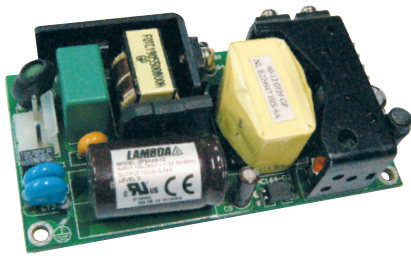


Note: All Dimensions are in inches (mm)
Tolerances: $XX \pm 0.2$ ($.XX \pm .5$) unless otherwise noted

Options

Suffix

Add Suffix -P for PCB Mount Pins



- Wide Range AC Input
- Low Profile, Industry Standard Footprint
- Global Safety Agency Compliance
- RoHS Compliant

Key Market Segments & Applications

Video/Audio Routers
 Datacom
 Point of Sale
 Test and Measurement
 LED Signs

ZPSA40 & 60 Series

2" x 4" 40W to 60W
 AC-DC Power Supplies

ZPSA40 & 60 Features and Benefits

Features

- Industry Standard Footprint
- Up to 88% efficiency
- Broad Product Range
- Meets EN61000-4 Immunity

Benefits

- Available to Second Source
- Less System Heating
- Optimization of Power Supply to System
- Greater Reliability

Specifications

MODEL		ZPSA40	ZPSA60
ITEMS			
Input Voltage range	-	90 - 264VAC (47 - 440Hz) or 120 - 370VDC	
Inrush Current (132/265VAC)	A	25 / 50	
Input Current (115/230VAC)	A	< 1.2A	< 1.4A
Leakage Current	mA	0.8mA max (264VAC, 60Hz)	
Temperature Coefficient	-	±0.05%/°C	
Voltage Accuracy	-	±1%	
Minimum Load	A	None	
Load Regulation	-	±1%	
Line Regulation	-	±0.5%	
Ripple & Noise (1)	mV	1% or 50mV whichever is greater	
Short Circuit Protection	-	Continuous - hiccup mode	
Overvoltage Protection	V	Typically 110-130% of nominal	
Hold Up Time (Typ)	ms	8ms at 115VAC input	
LED Indicator	-	Green LED = OK	
Operating Temperature	-	0 to +70°C with derating	
Storage Temperature	-	-20 to +85°C	
Humidity (non condensing)	-	10 - 95% RH	
Cooling	-	Convection	
Withstand Voltage		Input to Ground 1.5kVAC, Input to Output 3kVAC, Output to Ground 500VAC for 1 min.	
Isolation Resistance		>100MΩ at 25C & 70%RH, Output to Ground 500VDC	
Vibration (non operating)		23.52m/s ² (10 - 55Hz: constant sweep 1 min X, Y, Z for 1 hour)	
Shock	-	< 196.1 m/s ² (20G)	
Safety Agency Approvals	-	UL60950-1, CSA60950-1, EN60950-1 Class I, CE Mark (LVD)	
Conducted & Radiated EMI	-	EN55022-B, FCC Class B	
Immunity	-	EN61000-4-2,-3,-4,-5,-6,-8	
Weight (Typ)	g	130g	
Size (WxLxH)	mm	101.6 X 50.8 X 27.1 (including underside components)	
Warranty	yrs	2	

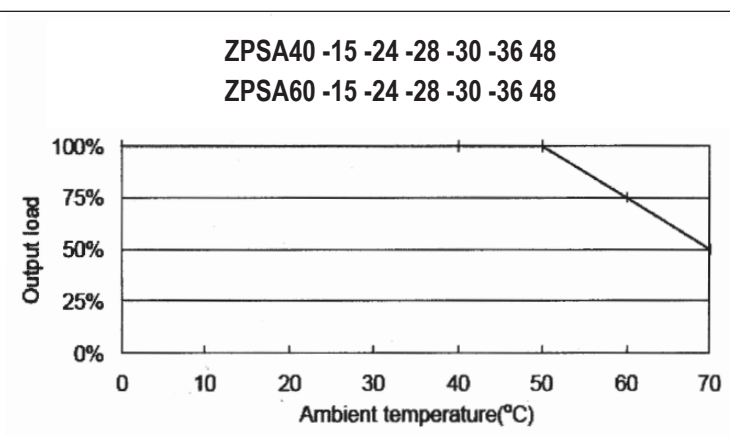
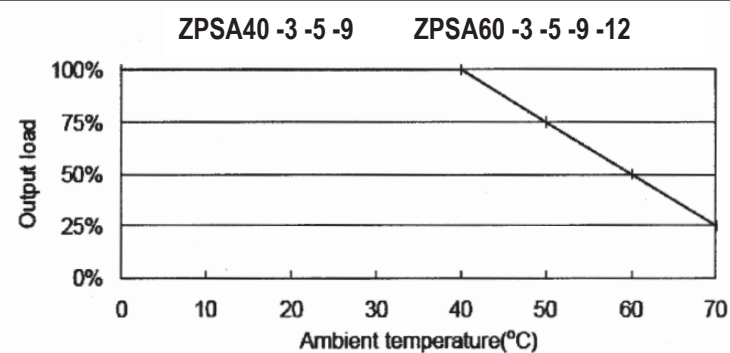
Notes: (1) Measured with 0.1μF ceramic & 10μF electrolytic at 20MHz BW

Model Selector

Model		Output Voltage (V)	Maximum Output (A)	Peak Load (A) (2)	Output Power (W)	Efficiency (typ)%
ZPSA40-3R3	V1	3.3	6.0	7.2	20.0	74
ZPSA60-3R3	V1	3.3	8.0	8.5	26.0	74
ZPSA40-5	V1	5.0	6.0	7.2	30.0	79
ZPSA60-5	V1	5.0	8.0	9.0	40.0	79
ZPSA40-9	V1	9.0	4.45	5.34	40.0	83
ZPSA60-9	V1	9.0	6.67	8.0	60.0	83
ZPSA40-12	V1	12.0	3.34	4.0	40.0	85
ZPSA60-12	V1	12.0	5.0	6.0	60.0	85
ZPSA40-15	V1	15.0	2.67	3.2	40.0	85
ZPSA60-15	V1	15.0	4.0	4.8	60.0	85
ZPSA40-24	V1	24.0	1.67	2.0	40.0	86
ZPSA60-24	V1	24.0	2.5	3.0	60.0	86
ZPSA40-28	V1	28.0	1.43	1.71	40.0	86
ZPSA60-28	V1	28.0	2.14	2.57	60.0	86
ZPSA40-30	V1	30.0	1.33	1.6	40.0	86
ZPSA60-30	V1	30.0	2.0	2.4	60.0	86
ZPSA40-36	V1	36.0	1.11	1.33	40.0	87
ZPSA60-36	V1	36.0	1.67	2.0	60.0	87
ZPSA40-48	V1	48.0	0.834	1.0	40.0	87
ZPSA60-48	V1	48.0	1.25	1.5	60.0	87

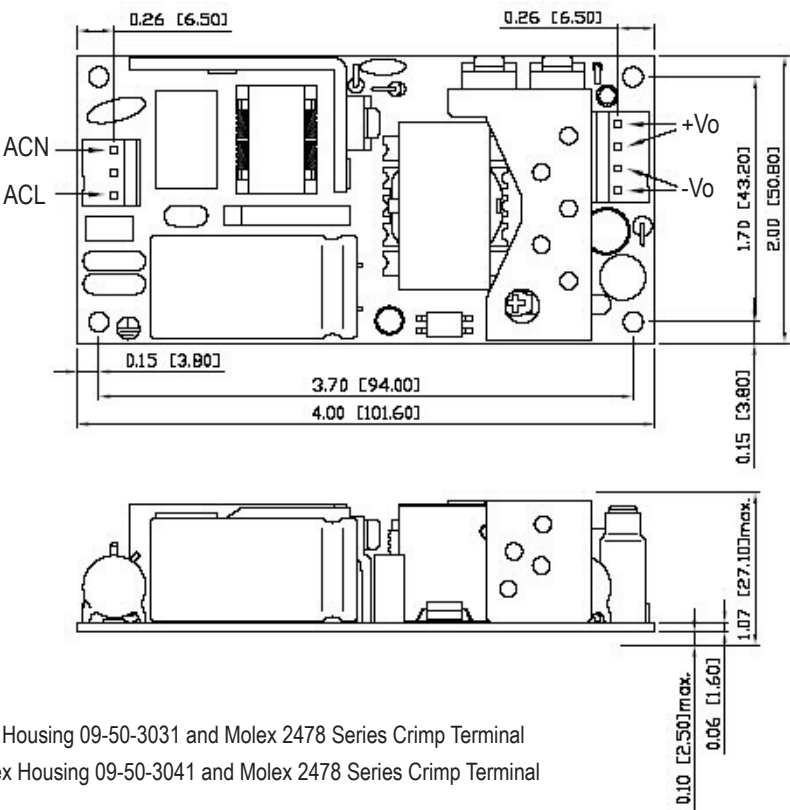
Notes: (2) Average not to exceed max power, <30s, 10% duty cycle

Derating Curve ZPSA40 & 60 Series



Outline Drawing ZPSA40 & 60 Series

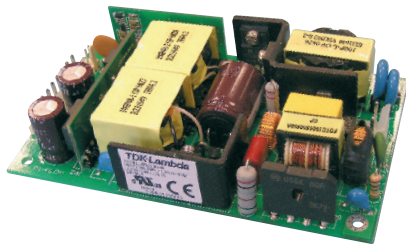
Note: All Dimensions are in inches (mm)
Tolerances: XX±0.2 (.XX±.5) unless otherwise noted



Input Connector Mates with Molex Housing 09-50-3031 and Molex 2478 Series Crimp Terminal
Output Connector Mates with Molex Housing 09-50-3041 and Molex 2478 Series Crimp Terminal

Options

Suffix	Description
Blank	Molex connectors
/P	PCB mount pins



ZPSA100 Series

3" x 5" 100W AC-DC
Power Supplies

- PFC
- Wide Range AC Input
- Low Profile, Industry Standard Footprint
- Global Safety Agency Compliance
- RoHS Compliant

Key Market Segments & Applications

Video/Audio Routers
Datacom
Point of Sale
Test and Measurement
LED Information Displays

ZPSA100 Features and Benefits

Features

- Industry Standard Footprint
- Up to 90% efficiency
- Broad Product Range
- Meets EN61000-4 Immunity
- Low Profile

Benefits

- Available to Second Source
- Less System Heating
- Optimization of Power Supply to System
- Greater Reliability

Specifications

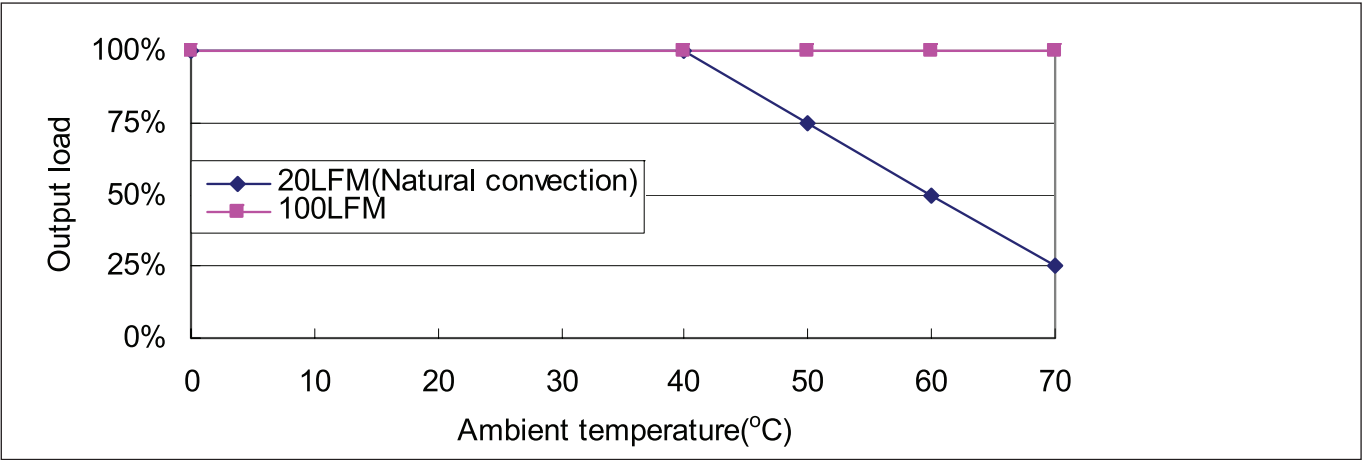
ITEMS		MODEL	ZPSA100
Input Voltage range	-	-	90 - 264VAC (47 - 440Hz) or 120 - 370VDC
Inrush Current	-	A	25 / 50 (cold start)
Input Current (115/230VAC)	-	A	1.1 / 0.6
Temperature Coefficient	-	-	±0.05%/°C
Voltage Accuracy	-	-	±1%
Minimum Load	-	A	None
Load Regulation	-	-	±1%
Line Regulation	-	-	±0.5%
Ripple & Noise (1)	mV	-	1% (for 5V, 2% or 50mV whichever is greater)
Short Circuit Protection	-	-	Foldback
Overvoltage Protection	-	V	Typically 110-130% of nominal, auto recovery
Hold Up Time (Typ)	-	ms	16ms at 115VAC input
Operating Temperature	-	°C	0 to +70°C with derating/air flow
Storage Temperature	-	°C	-20 to +85°C
Humidity (non condensing)	-	-	10 - 95% RH
Cooling (2)	-	-	Convection/air flow
Withstand Voltage	-	-	Input to Ground 1.5kVAC, Input to Output 3kVAC, Output to Ground 500VAC for 1 min.
Isolation Resistance	-	-	>100MΩ at 25°C & 70%RH, Output to Ground 500VDC
Vibration (non operating)	-	-	23.52m/s ² (10 - 55Hz: constant sweep 1 min X, Y, Z for 1 hour)
Shock	-	-	< 196.1 m/s ² (20G)
Safety Agency Approvals	-	-	UL/CSA/EN60950-1 (2nd Ed) Class I , CE Mark (LVD)
Conducted & Radiated EMI	-	-	EN55022-B, FCC Class B
Immunity	-	-	EN61000-4-2,-3,-4,-6,-8
Weight (Typ)	-	g	385
Size (WxLxH)	-	mm	127 X 76.2 X 26.6 (including underside components)
Warranty	-	yrs	2

Notes:

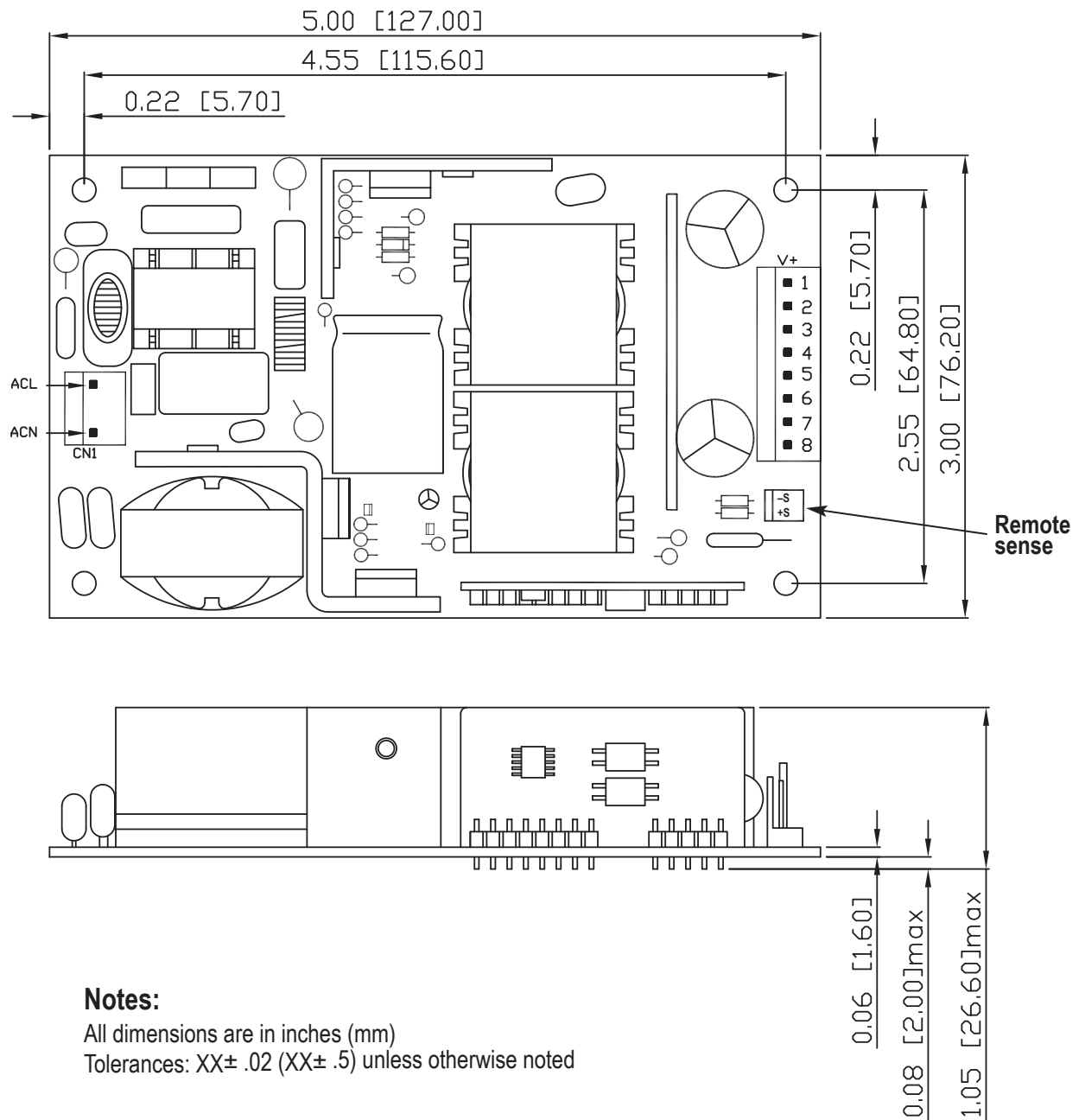
- (1) 5V measured with 0.1μF ceramic & 220μF electrolytic at 20MHz BW, all other models measured with 0.1μF & 10uF ceramic electrolytic at 20MHz BW.
(2) 70°C operating with 100LFM air flow.

Model Selector							
Model	Output Voltage (V)	Maximum Load (A)	Minimum Load (A)	Ripple and Noise	Voltage Accuracy	Line Regulation	Load Regulation
ZPSA100-5	5V	20A	0A	2%	+/- 1%	+/- 0.5%	+/- 1%
ZPSA100-9	9V	11.2A	0A	1%	+/- 1%	+/- 0.5%	+/- 1%
ZPSA100-12	12V	8.4A	0A	1%	+/- 1%	+/- 0.5%	+/- 1%
ZPSA100-15	15V	6.7A	0A	1%	+/- 1%	+/- 0.5%	+/- 1%
ZPSA100-18	18V	5.6A	0A	1%	+/- 1%	+/- 0.5%	+/- 1%
ZPSA100-24	24V	4.2A	0A	1%	+/- 1%	+/- 0.5%	+/- 1%
ZPSA100-48	48V	2.1A	0A	1%	+/- 1%	+/- 0.5%	+/- 1%

Derating Curve ZPSA100 Series



Outline Drawing ZPSA100 Series



PIN Assignments

Pin#	Function
1	Vout (+)
2	Vout (+)
3	Vout (+)
4	Vout (+)
5	Vout (-)
6	Vout (-)
7	Vout (-)
8	Vout (-)

Input Connector Mates with Molex Housing 09-50-3031 and Molex 2478 Series Crimp Terminal
 Output Connector Mates with Molex Housing 09-50-1081 and Molex 5194 Series Crimp Terminal
 Sense Connector Mates with Molex Housing 22-01-1022 and Molex 2759 or 5159 Crimp Terminal

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