

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

Features

- ◆ PFC
- ◆ Wide Range AC Input
- ◆ Low Profile, Industry Standard Footprint
- ◆ Global Safety Agency Compliance
- ◆ RoHS Compliant
- ◆ Up to 84% efficiency
- ◆ Meets EN61000-4 Immunity



Key Market Segments & Applications



Specifications

Model		ZPSA100
Input Voltage range	-	90 - 264VAC (47 - 63Hz) 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	5V: 2%, others 1%
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
Humidity (non condensing)	-	10 - 95% RH
Cooling	-	Convection/air flow
Withstand Voltage	-	Input to Ground 1.5kVAC, Input to Output 3kVAC, Output to Ground 500VAC for 1 min.
Isolation Resistance	-	>100M 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 Certifications	-	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)	in(mm)	3 x 5 x 1.05 in. (76.2 x 127 x 26.6 mm) including underside components
Warranty	yrs	2 Years

*Safety certified for AC input only.

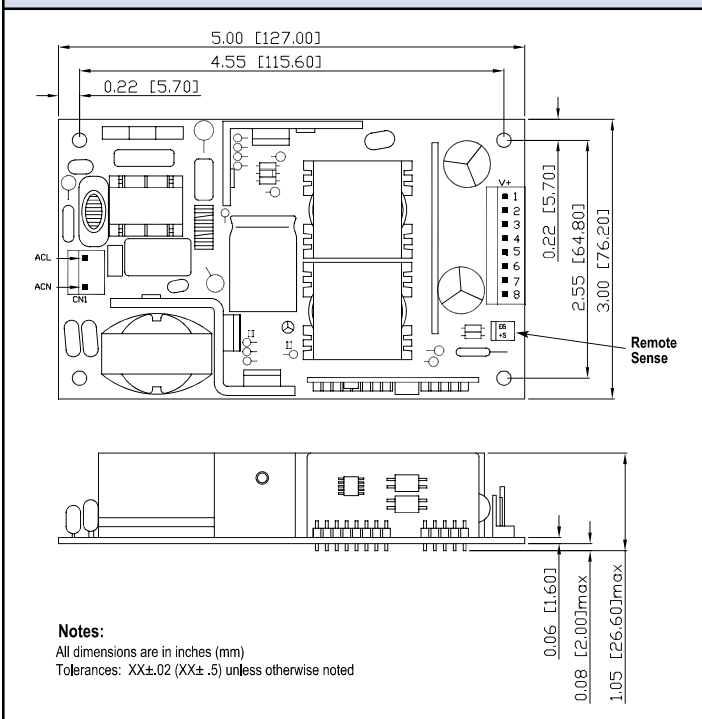
Notes:

- (1) 5V measured with 0.1uF ceramic & 220uF electrolytic at 20MHz BW, all other models measured with 0.1uF & 10uF ceramic electrolytic at 20MHz BW

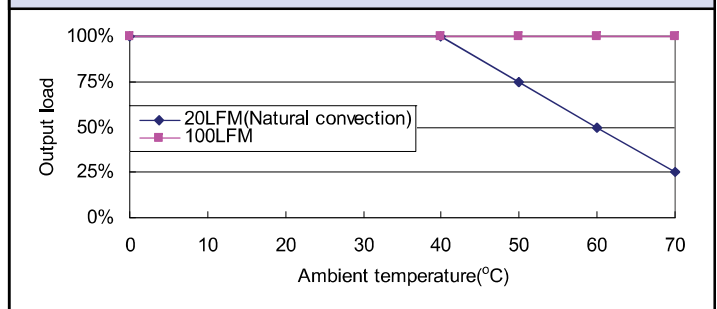
Model Selector

Model	Output Voltage (V)	Maximum Load (A)	Efficiency (%)	Ripple and Noise	Voltage Accuracy	Line Regulation	Load Regulation
ZPSA100-5	5V	20A	83%	2%	± 1%	± 0.5%	± 1%
ZPSA100-9	9V	11.2A	84%	1%	± 1%	± 0.5%	± 1%
ZPSA100-12	12V	8.4A	84%	1%	± 1%	± 0.5%	± 1%
ZPSA100-15	15V	6.7A	84%	1%	± 1%	± 0.5%	± 1%
ZPSA100-18	18V	5.6A	84%	1%	± 1%	± 0.5%	± 1%
ZPSA100-24	24V	4.2A	84%	1%	± 1%	± 0.5%	± 1%
ZPSA100-48	48V	2.1A	84%	1%	± 1%	± 0.5%	± 1%

Outline Drawing



Derating Curve



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

Pin Assignments

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

Other Industrial Products

KPSA	5 - 15W pcb mount
KM	15 - 40W pcb mount medical
ZPSA/ZPD/ZPT	40 - 60W, single, dual and triple output
ZWS	5 - 240W single output

For Additional Information, please visit
<https://product.tdk.com/info/en/products/power/index.html>

