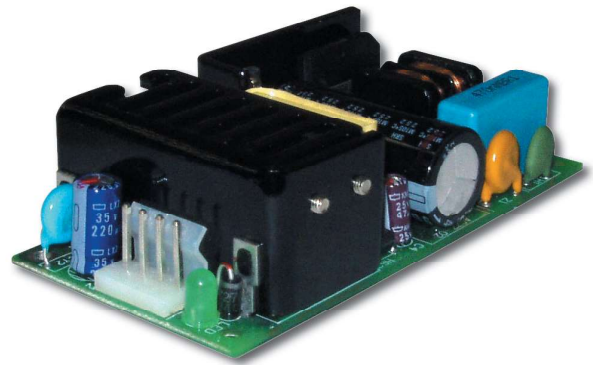


## 2 x 4" 40W to 60W AC-DC Power Supplies

### Features

- ◆ Single and Multiple Outputs
- ◆ Wide Range AC Input
- ◆ Low profile, Industry Standard Footprint
- ◆ Global Safety Agency Compliance
- ◆ EN61000-4 Immunity
- ◆ Up to 88% efficiency



### Key Market Segments & Applications



Specifications		ZPS40	ZPS60	ZPD40	ZPT40
Input Voltage range	-	90 - 264VAC (47 - 63Hz) or 120 - 370VDC*			
Inrush Current (132/265VAC)	A	25 / 50 (cold start)			
Input Current (115/230VAC)	A	1.6 / 1.0			
Temperature Coefficient	-	±0.05%/°C			
Voltage Accuracy	%	±1%		V1: ±3%, V2: ±4%, V3: ±3%	
Minimum Load	A	None		V1: 0.4A, V2: 0.2A	
Load Regulation (1)	%	±1%		V1: ±3%, V2: ±5%, V3: ±1%	
Line Regulation (2)	%	±0.5%		V1: ±1%, V2: ±2%, V3: ±1%	
Ripple & Noise (3)(4)	mV	1% or 50mV whichever is greater			
Short Circuit Protection	-	Continuous - hiccup mode			
Oversoltage Protection	V	Typically 110-130% of nominal			
Hold Up Time (Typ)	ms	8ms at 115VAC input			
LED Indicator	-	Green LED = OK		None	
Operating Temperature (5)	-	0 to +70°C, derate linearly to 50% load from 50°C to 70°C			
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	-	>100M at 25C & 70%RH, Output to Ground 500VDC			
Vibration (non operating)	-	23.52m/s <sup>2</sup> (10 - 55Hz: constant sweep 1 min X, Y, Z for 1 hour)			
Shock	-	< 196.1 m/s <sup>2</sup> (20G)			
Safety Agency Approvals	-	UL60950, CSA60950, EN60950, CE Mark (LVD)			
Conducted & Radiated EMI	-	EN55022-B, FCC Class B			
Immunity	-	EN61000-4-2,-3,-4,-6,-8			
Weight (Typ)	g (oz)	170g (6oz)			
Size (WxLxH)	in	2 x 4 x 1.2 (including underside components)			
Warranty	yrs	Two Year			

\*Safety certified for AC input only.

#### Notes:

- (1) ZPD, ZPT for a 60% to 100% or 100% to 60% change in load
- (2) ZPT40-3512N V2: ±3%, ZPS/ZPD40: 100-240VAC
- (3) Measured with 0.1uF ceramic & 10uF electrolytic at 20MHz BW
- (4) ZPT40-3512N, V1 & V2 100mV
- (5) ZPS40 (3.3V to 9V models), ZPS60 (3.3V to 12V models) derate linearly to 25% load from 40°C to 70°C

## ZPS40, 60 Not Recommended For New Designs - See ZPSA Series

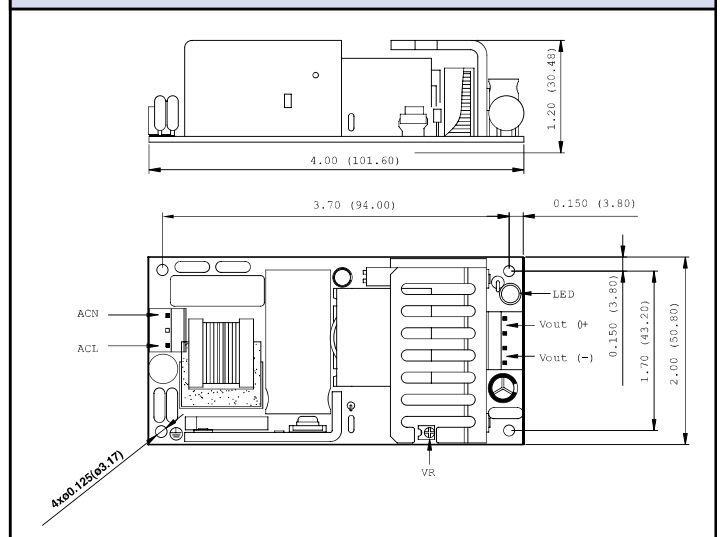
## 2 Output Module Codes

Model	O/P(V)	Max. O/P(A)	Peak (A)(6)	Output Pwr(W)	Eff. (%)	
<b>Single Output</b>						
ZPS40-3R3	V1	3.3	6.0	7.2	20.0	74
ZPS60-3R3	V1	3.3	8.0	8.5	26.0	74
ZPS40-5	V1	5.0	6.0	7.2	30.0	78
ZPS60-5	V1	5.0	8.0	9.0	40.0	78
ZPS40-9	V1	9.0	4.45	5.34	40.0	82
ZPS60-9	V1	9.0	6.67	8.0	60.0	82
ZPS40-12	V1	12.0	3.34	4.0	40.0	84
ZPS60-12	V1	12.0	5.0	6.0	60.0	84
ZPS40-15	V1	15.0	2.67	3.2	40.0	85
ZPS60-15	V1	15.0	4.0	4.8	60.0	85
ZPS40-24	V1	24.0	1.67	2.0	40.0	86
ZPS60-24	V1	24.0	2.5	3.0	60.0	86
ZPS40-30	V1	30.0	1.33	1.6	40.0	86
ZPS60-30	V1	30.0	2.0	2.4	60.0	86
ZPS40-36	V1	36.0	1.11	1.33	40.0	87
ZPS60-36	V1	36.0	1.67	2.0	60.0	87
ZPS40-48	V1	48.0	0.834	1.0	40.0	88
ZPS60-48	V1	48.0	1.25	1.5	60.0	88
<b>Dual Outputs</b>						
ZPD40-512	V1	+5.0	3.2	5.0	40.0 (7)	77
	V2	+12.0	2.0	2.5		
ZPD40-524	V1	+5.0	3.2	5.0	40.0 (7)	78
	V2	+24.0	1.0	1.5		
<b>Triple Outputs</b>						
ZPT40-5125N	V1	+5.0	3.2	5.0	40.5 (7)	75
	V2	+12.0	2.0	2.5		
	V3	-5.0	0.3	0.5		
ZPT40-51212N	V1	+5.0	3.2	5.0	42.6 (7)	75
	V2	+12.0	2.0	2.5		
	V3	-12.0	0.3	0.5		
ZPT40-51515N	V1	+5.0	3.2	5.0	42.0 (7)	75
	V2	+15.0	1.5	2.3		
	V3	-15.0	0.3	0.5		
ZPT40-52412N	V1	+5.0	3.2	5.0	42.6 (7)	75
	V2	+24.0	1.0	1.5		
	V3	-12.0	0.3	0.5		
ZPT40-5245N	V1	+5.0	3.2	5.0	40.5 (7)	75
	V2	+24.0	1.0	1.5		
	V3	-5.0	0.3	0.5		
ZPT40-52412P	V1	+5.0	3.2	5.0	42.6 (7)	75
	V2	+24.0	1.0	1.5		
	V3	+12.0	0.3	0.5		
ZPT40-3512N	V1	+3.3	5.0	7.0	30.0	70
	V2	+5.0	2.0	3.5		
	V3	-12.0	0.3	0.5		

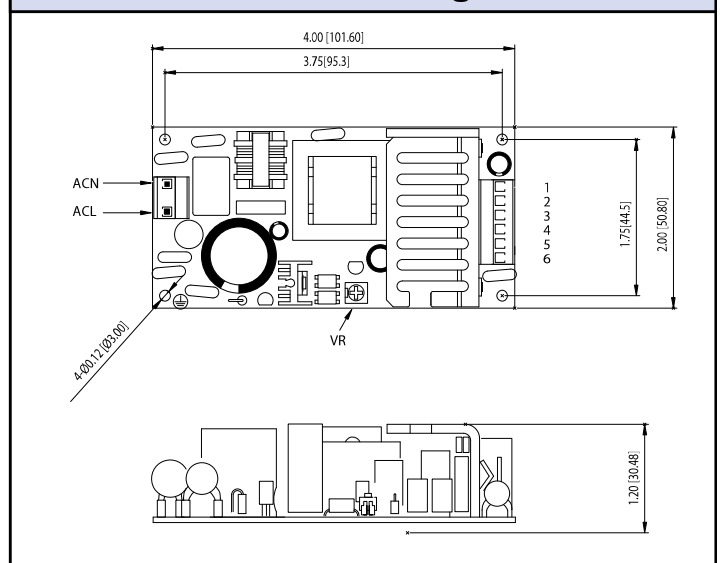
## Other Industrial Products

SC40/60	40 to 80W, 3x5", 1 - 3 outputs
NV175	175W, 3x5", 1-5 outputs
ZWS	5 to 240W, single output

## ZPS Outline Drawing



## ZPD/ZPT Outline Drawing



## Pin Connection (ZPD/ZPT)

PIN	Function
1	V2
2	V1
3	V1
4	COM
5	COM
6	V3

Note: (6) Average not to exceed max power, <30s, 10% duty cycle  
 (7) 50W with 30CFM forced air cooling, derate linearly to 35W from 50°C to 70°C

For Additional Information, please visit  
[us.tdk-lambda.com/lp/products/zp-series.htm](http://us.tdk-lambda.com/lp/products/zp-series.htm)



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