

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

### Features

- ◆ Single Output
- ◆ Wide Range AC Input
- ◆ Low 1.07" profile
- ◆ Industry Standard Footprint
- ◆ Global Safety Agency Compliance
- ◆ Up to 88% efficiency



### Key Market Segments & Applications



| Specifications                |     |                                                                                    |
|-------------------------------|-----|------------------------------------------------------------------------------------|
| Model                         |     | <div>ZPSA40</div> <div>ZPSA60</div>                                                |
| Input Voltage range           | -   | 90 - 264VAC (47 - 440Hz) or 120 - 370VDC*                                          |
| Inrush Current (115 / 230VAC) | A   | 25 / 50                                                                            |
| Input Current                 | A   | < 1.2A   < 1.4A                                                                    |
| Leakage Current               | mA  | 0.8mA maximum (264VAC, 60Hz)                                                       |
| Temperature Coefficient       | -   | ±0.05%/°C                                                                          |
| Voltage Accuracy              | %   | ±1%                                                                                |
| Minimum Load                  | -   | None                                                                               |
| Load Regulation               | %   | ±1%                                                                                |
| Line Regulation               | %   | ±0.5%                                                                              |
| Ripple & Noise                | 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         | °C  | 0 to +70°C derate according to charts on page 2                                    |
| Storage Temperature           | °C  | -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 Certification   | -   | UL60950-1, CSA60950-1, EN60950-1, CE Mark                                          |
| Conducted & Radiated EMI      | -   | EN55022-B, FCC Class B                                                             |
| Immunity                      | -   | EN61000-4-2, -3, -4, -5, -6, -8, -11                                               |
| Weight (Typ)                  | g   | 130                                                                                |
| Size (WxLxH)                  | in  | 2 x 4 x 1.07 (including underside components)                                      |
| Warranty                      | yrs | Two Years                                                                          |

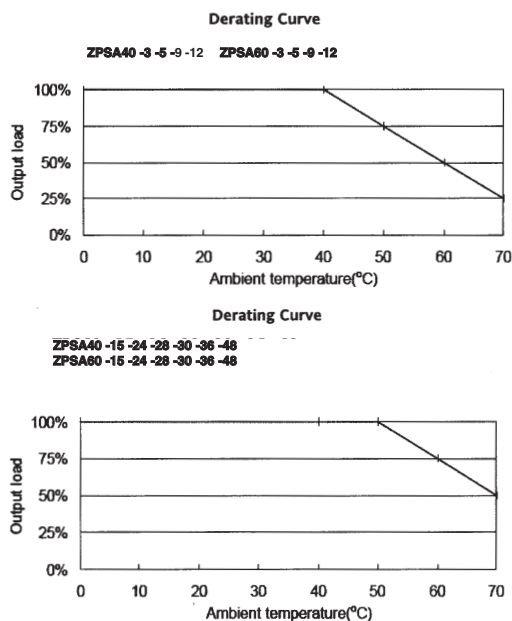
\*Safety certified for 47-63Hz input only

## Model Selector

| Model      | Output (V) | Adjustment Range (V) | Maximum Output (A) | Peak Load (A)(4) | Output Power (W) | Efficiency (%) |
|------------|------------|----------------------|--------------------|------------------|------------------|----------------|
| ZPSA40-3R3 | 3.3        | -                    | 6.0                | 7.2              | 20               | 74             |
| ZPSA60-3R3 | 3.3        | -                    | 8.0                | 8.5              | 26               | 74             |
| ZPSA40-5   | 5          | -                    | 6.0                | 7.2              | 30               | 79             |
| ZPSA60-5   | 5          | -                    | 8.0                | 9.0              | 40               | 79             |
| ZPSA40-9   | 9          | -                    | 4.45               | 5.34             | 40               | 83             |
| ZPSA60-9   | 9          | -                    | 6.67               | 8.0              | 60               | 83             |
| ZPSA40-12  | 12         | -                    | 3.34               | 4.0              | 40               | 85             |
| ZPSA60-12  | 12         | -                    | 5.0                | 6.0              | 60               | 85             |
| ZPSA40-15  | 15         | -                    | 2.67               | 3.2              | 40               | 85             |
| ZPSA60-15  | 15         | -                    | 4.0                | 4.8              | 60               | 85             |
| ZPSA40-24  | 24         | -                    | 1.67               | 2.0              | 40               | 86             |
| ZPSA60-24  | 24         | -                    | 2.5                | 3.0              | 60               | 86             |
| ZPSA40-28  | 28         | -                    | 1.43               | 1.7              | 40               | 86             |
| ZPSA60-28  | 28         | -                    | 2.14               | 2.6              | 60               | 86             |
| ZPSA40-30  | 30         | -                    | 1.33               | 1.6              | 40               | 86             |
| ZPSA60-30  | 30         | -                    | 2.0                | 2.4              | 60               | 86             |
| ZPSA40-36  | 36         | -                    | 1.11               | 1.33             | 40               | 87             |
| ZPSA60-36  | 36         | -                    | 1.67               | 2.0              | 60               | 86             |
| ZPSA40-48  | 48         | -                    | 0.834              | 1.0              | 40               | 87             |
| ZPSA60-48  | 48         | -                    | 1.25               | 1.5              | 60               | 87             |

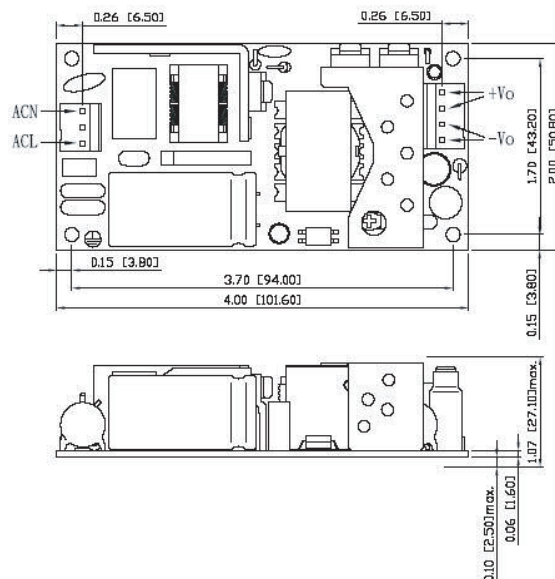
(4) Average not to exceed max power, <30s, 10% duty cycle

## Derating Curve



## Outline Drawings

All Dimensions are in inches[mm]  
Tolerances :  $XX \pm 0.02$  [ $XX \pm 0.5$ ] unless otherwise noted



## Other Industrial Products

|          |                                   |
|----------|-----------------------------------|
| SC40/60  | 40 to 80W, 3x5", 1 - 3 outputs    |
| NV175    | 175W, 3x5", 1-5 outputs           |
| ZWS      | 5 to 240W, single output          |
| KPSA     | 5 to 15W, pcb mount               |
| ZPD, ZPT | 40W, 2x4" dual and triple outputs |

## Options

| Suffix | Description      |
|--------|------------------|
| Blank  | Molex connectors |
| /P     | PCB mount pins   |

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

