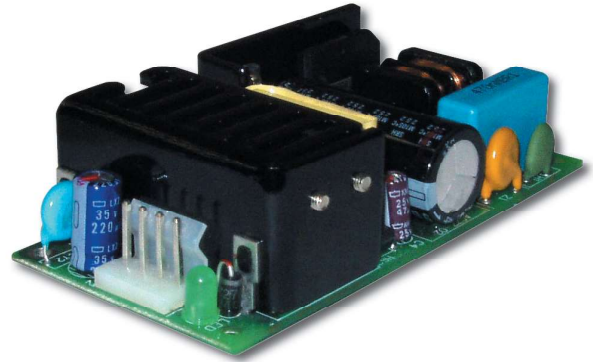


2 x 4" 40W to 60W AC-DC Power Supplies

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 | | | |
| 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 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, 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

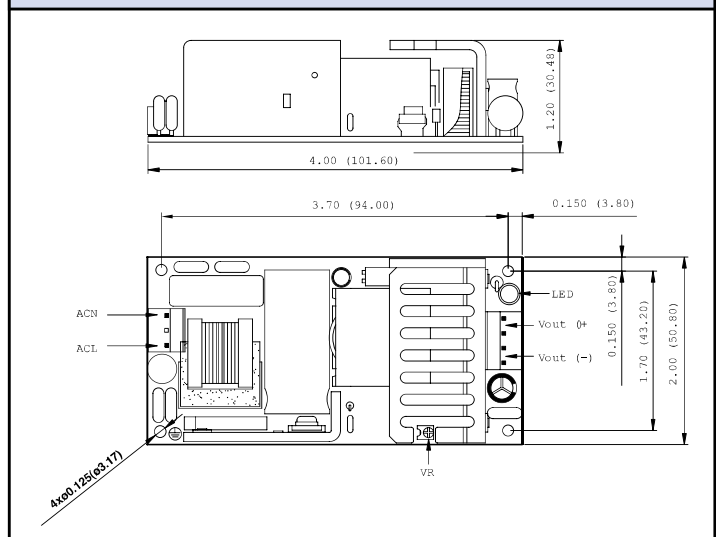
2 Output Module Codes

| Model | O/P(V) | Max. O/P(A) | Peak (A)(6) | Output Pwr(W) | Eff. (%) | |
|-----------------------|--------|-------------|-------------|---------------|----------|----|
| Single Output | | | | | | |
| 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 |
| Dual Outputs | | | | | | |
| 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 | | |
| Triple Outputs | | | | | | |
| 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 | | |

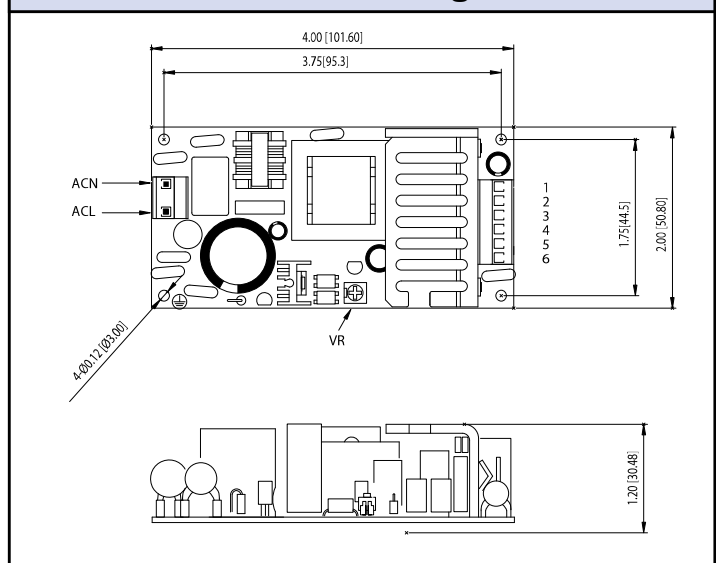
Other Industrial Products

| | |
|---------|--------------------------------|
| 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



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