

4-15W AC-DC Board Mount Power Supplies

Features

- ◆ Low profile
- ◆ Smaller footprint
- ◆ PC board Mountable
- ◆ Low Cost
- ◆ UL Class II Approved
- ◆ Wide input range
- ◆ No external components needed



Key Market Segments & Applications



| Specifications | | KPSA-5 | KPSA-10 | KPSA-15 |
|---------------------------------|-------|---|-------------------|--------------------|
| Input Voltage range | - | 85 - 264VAC (47 - 440Hz) or 110 - 370VDC* | | |
| Inrush Current | A | 30A at 240VAC, cold start at 25°C | | |
| Input Current (115/230VAC) | A | 0.13 / 0.07 | 0.27 / 0.13 | 0.4 / 0.2 |
| Leakage Current | mA | 0.25mA maximum | | |
| Temperature Coefficient | - | ±0.05%/°C | | |
| Voltage Accuracy | - | ±1% | | |
| Minimum Load | A | None | | |
| Load Regulation | - | ±1% (10% to 100% load) | | |
| Line Regulation | - | ±0.5% (100-240VAC line change) | | |
| Ripple & Noise (1) | mV | 1% or 50mV whichever is greater | | |
| Short Circuit Protection | - | Continuous - hiccup mode | | |
| Overvoltage Protection | V | 130-150%, Zener clamp | | |
| Efficiency (typical) | % | 72% | 75% | 75% |
| Hold Up Time (Typ@115VAC input) | ms | 14ms at full load | | |
| LED Indicator | - | Green LED = OK | | |
| Operating Temperature (2) | °C | Convection cooling: 0 to +70°C, derating linearly to 25% load from 40 to 70°C | | |
| Storage Temperature | °C | -20 to +85°C | | |
| Humidity (non condensing) | - | 10 - 95% RH | | |
| Cooling | - | Convection or forced air | | |
| Withstand Voltage | - | Input to Output 3kVAC | | |
| 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 II, CE Mark | | |
| Conducted & Radiated EMI | - | EN55022-B, FCC Class B | | |
| Immunity | - | EN61000-4 -2, -3, -4, -5, -6 | | |
| Weight (Typ) | g(oz) | 29g (1oz) | 60g (2oz) | 80g (2.8oz) |
| Size (WxLxH; H above pcb) | in. | 1.28 x 2.17 x 0.83 | 1.55 x 2.40 x 0.9 | 1.77 x 2.75 x 0.79 |
| Warranty | yr | One Year | | |

Notes:

*Safety certified for AC input only

(1) Measured with 0.1uF ceramic & 10uF electrolytic at 20MHz BW

(2) 20CFM forced air ratings:

KPSA5: 0 - 70°C full load

KPSA10: 0 - 70°C full load (3.3V & 5V models derate linearly to 80% load from 50 to 70°C)

KPSA15: 0 - 70°C derate linearly to 80% load from 50 to 70°C

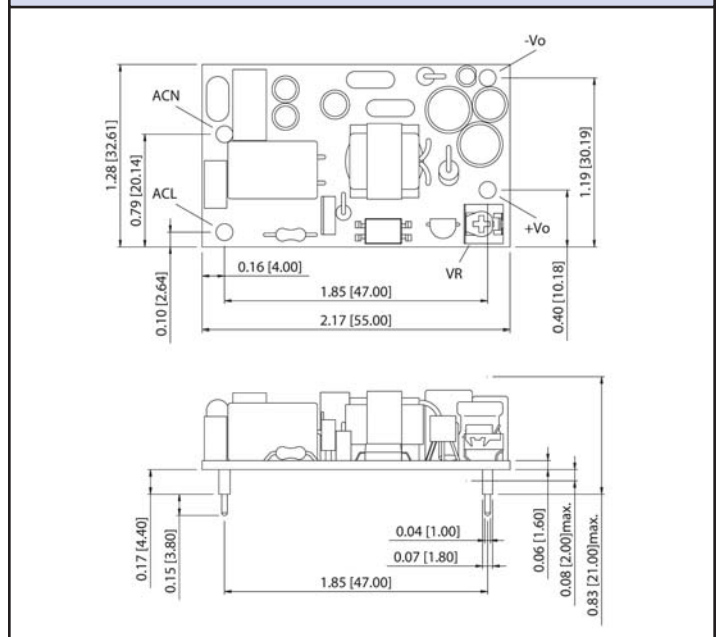
Model Selector (other voltages available)

| Model | Output Voltage (V) | Maximum Output (A) | Peak Load (A)(3) | Output Pwr (W) |
|------------|--------------------|--------------------|------------------|----------------|
| KPSA5-3R3 | 3.3 | 1.25 | - | 4.1 |
| KPSA5-5 | 5 | 1.0 | - | 5.0 |
| KPSA5-12 | 12 | 0.42 | - | 5.0 |
| KPSA5-15 | 15 | 0.33 | - | 5.0 |
| KPSA5-24 | 24 | 0.23 | - | 5.5 |
| KPSA10-3R3 | 3.3 | 2.5 | 3.8 | 8.3 |
| KPSA10-5 | 5 | 2.0 | 2.8 | 10.0 |
| KPSA10-12 | 12 | 0.84 | 1.2 | 10.1 |
| KPSA10-15 | 15 | 0.67 | 1.0 | 10.1 |
| KPSA10-24 | 24 | 0.42 | 0.65 | 10.1 |
| KPSA15-3R3 | 3.3 | 3.0 | 4.5 | 9.9 |
| KPSA15-5 | 5 | 3.0 | 4.0 | 15.0 |
| KPSA15-12 | 12 | 1.25 | 1.8 | 15.0 |
| KPSA15-15 | 15 | 1.0 | 1.5 | 15.0 |
| KPSA15-24 | 24 | 0.63 | 0.95 | 15.1 |

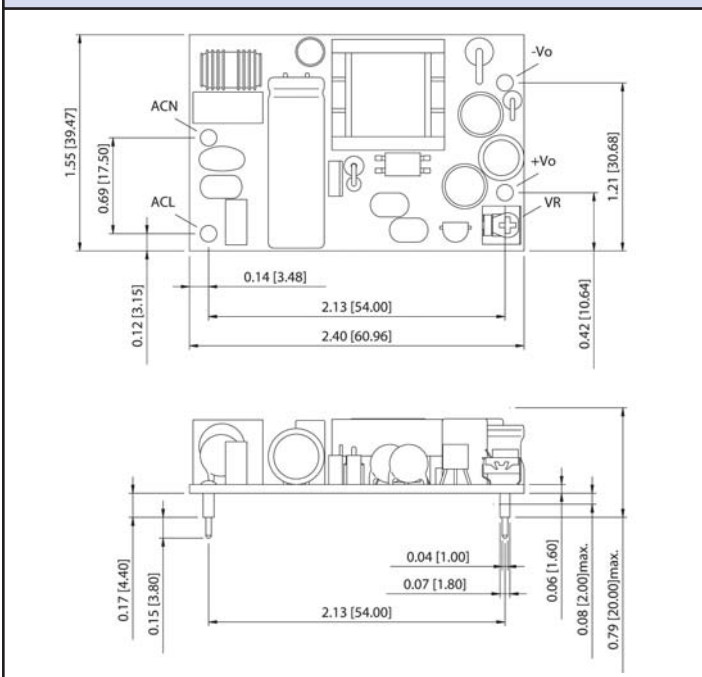
Notes

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

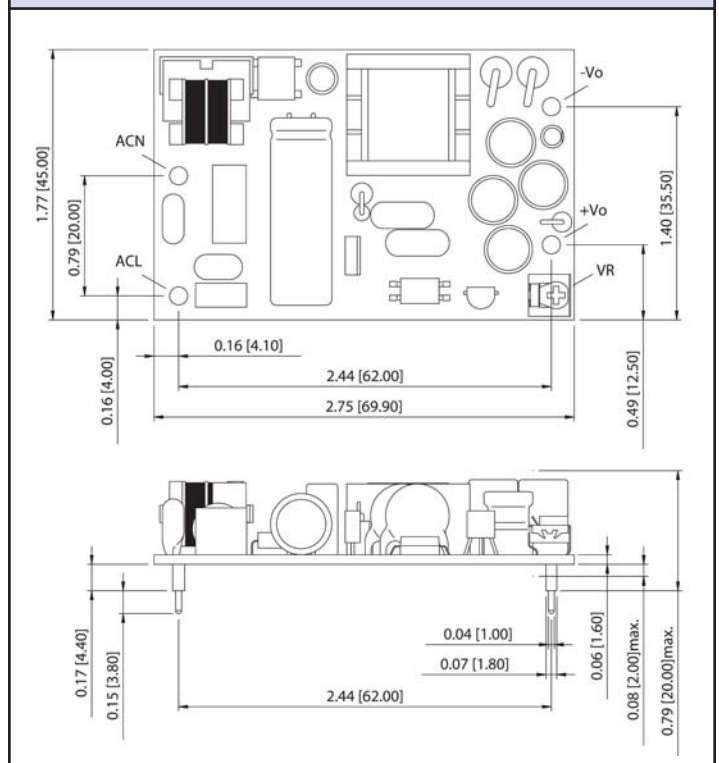
KPSA5 Outline Drawing



KPSA10 Outline Drawing



KPSA15 Outline Drawing



Other Industrial Products

| | |
|------|-----------------------------|
| ZPSA | 20W to 60W |
| KM | 15 to 40W pcb mount medical |
| ZWS | 5 to 240W, single output |

For Additional Information, please visit us.tdk-lambda.com/lp/products/kps-series.htm

