

KEY FEATURES

- Power Module for PCB Mountable
- Low Cost but High Reliability
- 4:1 Wide Input Range
- Regulated Output
- Low Ripple and Noise
- 2-Years Product Warranty


ELECTRICAL SPECIFICATIONS

| Model No. | ZA05-24-3.3S | ZA05-24-5S | ZA05-24-12S | ZA05-24-15S | ZA05-24-24S | ZA05-24-5D | ZA05-24-12D | ZA05-24-15D |
|-------------------------|---------------|-------------|-------------|-------------|-------------|--------------|---------------|---------------|
| Max. Output Wattage (W) | 4W | 5W | 6W | 6W | 6W | 5W | 6W | 6W |
| Input Voltage (V.DC.) | 24V (9-36V) | 24V (9-36V) | 24V (9-36V) | 24V (9-36V) | 24V (9-36V) | 24V (9-36V) | 24V (9-36V) | 24V (9-36V) |
| Output Voltage (V.DC.) | 3.3V / 1200mA | 5V / 1000mA | 12V / 500mA | 15V / 400mA | 24V / 250mA | ±5V / ±500mA | ±12V / ±250mA | ±15V / ±200mA |
| Efficiency | 71% | 75% | 82% | 79% | 81% | 75% | 78% | 75% |

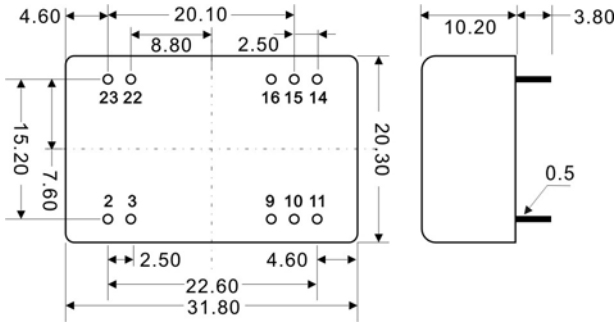
| Model No. | ZA05-48-3.3S | ZA05-48-5S | ZA05-48-12S | ZA05-48-15S | ZA05-48-24S | ZA05-48-5D | ZA05-48-12D | ZA05-48-15D |
|-------------------------|---------------|--------------|--------------|--------------|--------------|--------------|---------------|---------------|
| Max. Output Wattage (W) | 4W | 5W | 6W | 6W | 6W | 5W | 6W | 6W |
| Input Voltage (V.DC.) | 48V (18-75V) | 48V (18-75V) | 48V (18-75V) | 48V (18-75V) | 48V (18-75V) | 48V (18-75V) | 48V (18-75V) | 48V (18-75V) |
| Output Voltage (V.DC.) | 3.3V / 1200mA | 5V / 1000mA | 12V / 500mA | 15V / 400mA | 24V / 250mA | ±5V / ±500mA | ±12V / ±250mA | ±15V / ±200mA |
| Efficiency | 71% | 75% | 82% | 82% | 81% | 77% | 83% | 81% |

| Model No. | ZA05-24-3.3S ZA05-48-3.3S | ZA05-24-5S ZA05-48-5S | ZA05-24-12S ZA05-48-12S | ZA05-24-15S ZA05-48-15S | ZA05-24-24S ZA05-48-24S | ZA05-24-5D ZA05-48-5D | ZA05-24-12D ZA05-48-12D | ZA05-24-15D ZA05-48-15D | |
|------------------------|----------------------------------|---|----------------------------|----------------------------|----------------------------|--------------------------|----------------------------|----------------------------|------|
| Max Output Wattage (W) | 4W | 5W | 6W | 6W | 6W | 5W | 6W | 6W | |
| Input | Input Filter π type | | | | | | | | |
| Output | Voltage (V.DC.) | 3.3 | 5 | 12 | 15 | 24 | ±5 | ±12 | ±15 |
| | Voltage Accuracy | ±2% | | | | | | | |
| | Current (mA) max | 1200 | 1000 | 500 | 400 | 250 | ±500 | ±250 | ±200 |
| | Line Regulation (LL-HL) (typ.) | ±0.5% | | | | | | | |
| | Load Regulation (10-100%) (typ.) | ±3% | ±1% | ±1% | ±1% | ±1% | ±1% | ±1% | ±1% |
| | Ripple | <0.2% Vout +40mV max (Vp-p) | | | | | | | |
| | Noise | <0.5% Vout +50mV max (Vp-p) | | | | | | | |
| | Switching Frequency | 300KHz | | | | | | | |
| Protection | Over Power Protection | Works over 120% of rating and recovers automatically. | | | | | | | |
| | Short Circuit Protection | Current limit, auto-recovery | | | | | | | |
| Isolation | Voltage | 1600 VDC. | | | | | | | |
| | Resistance | 10 ⁸ ohms | | | | | | | |
| | Capacitance | 1000 pF | | | | | | | |
| Environment | Operating Temperature | -25°C...+70°C (at Full Load) | | | | | | | |
| | Storage Temperature | -55°C...+105°C | | | | | | | |
| | Case temperature | +100°C max. | | | | | | | |
| | Temperature Coefficient | ±0.02% Per°C | | | | | | | |
| | Humidity | 95% RH | | | | | | | |
| | MTBF | >800,000 h @ 25°C (MIL-HDBK-217F) | | | | | | | |
| Physical | Dimension (L x W x H) | 1.25 x 0.8 x 0.4 Inches (31.8 x 20.3 x 10.2 mm) Tolerance ±0.5 mm | | | | | | | |
| | Case Material | Five-side shielded Aluminum with Non-Conductive base, Black Anodize | | | | | | | |
| | Weight | 13 g | | | | | | | |
| | Cooling Method | Free-air convection | | | | | | | |

1. All specifications valid at nominal input voltage, full load and +25°C after warm-up time unless otherwise stated.

2. Ripple & Noise are measured at 20MHz of bandwidth with 0.1μF parallel capacitor.

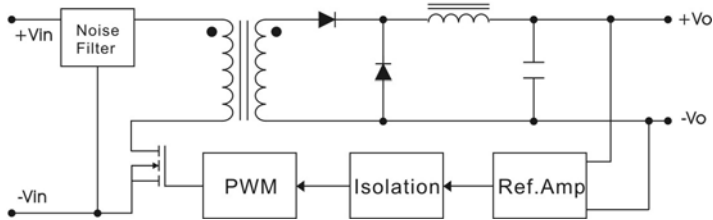
MECHANICAL DIMENSION (Top View)



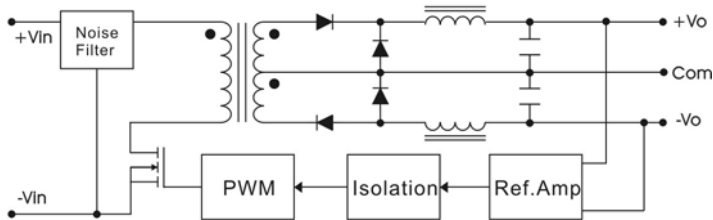
| PIN# | Single | Dual |
|------|--------|--------|
| 2 | -VIN | -VIN |
| 3 | -VIN | -VIN |
| 9 | NC | COMMON |
| 10 | NC | NC |
| 11 | NC | -VOUT |
| 14 | +VOUT | +VOUT |
| 15 | NC | NC |
| 16 | -VOUT | COMMON |
| 22 | +VIN | +VIN |
| 23 | +VIN | +VIN |

BLOCK DIAGRAM

Single Output



Dual Output



DERATING

