

KAD07 SERIES



OPEN FRAME

AC - DC POWER MODULE

6.3 ~ 7.6W UL / cUL / TUV / CE

FEATURES

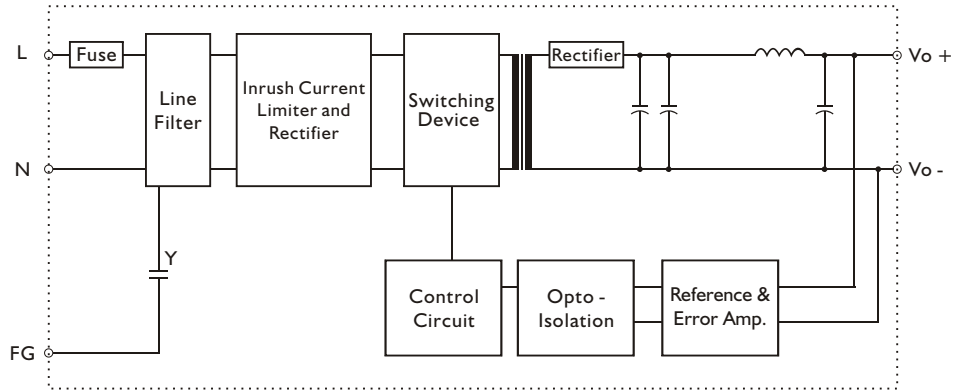
- AC/DC POWER MODULE
- UNIVERSAL INPUT 85 ~ 265 VAC
- HIGH EFFICIENCY UP TO 79%
- SHORT CIRCUIT PROTECTION
- INTERNAL INPUT FILTER
- 2 YEARS WARRANTY
- OPEN FRAME

MODEL LIST

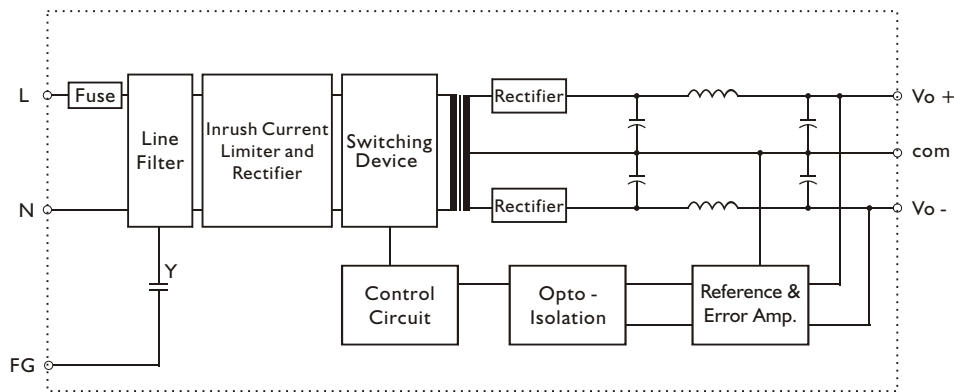
| MODEL NO. | INPUT VOLTAGE | OUTPUT WATTAGE | OUTPUT VOLTAGE | OUTPUT CURRENT | EFF. (typ.) | EFF. (min.) |
|-----------------------------|---------------|----------------|----------------|-------------------|-------------|-------------|
| Single Output Models | | | | | | |
| KAD0703 | 85~265 VAC | 6.6 WATTS | +3.3 VDC | 2000 mA | 72% | 69% |
| KAD0705 | 85~265 VAC | 7.5 WATTS | + 5 VDC | 1500 mA | 75% | 72% |
| KAD0712 | 85~265 VAC | 7.5 WATTS | + 12 VDC | 630 mA | 78% | 75% |
| KAD0715 | 85~265 VAC | 7.5 WATTS | + 15 VDC | 500 mA | 78% | 75% |
| KAD0724 | 85~265 VAC | 7.6 WATTS | + 24 VDC | 320 mA | 79% | 77% |
| Dual Output Models | | | | | | |
| KAD0712D | 85~265 VAC | 7.6 WATTS | ± 12 VDC | ± 320 mA | 77% | 74% |
| KAD0715D | 85~265 VAC | 7.5 WATTS | ± 15 VDC | ± 250 mA | 78% | 75% |
| KAD07503D | 85~265 VAC | 6.3 WATTS | + 3.3 /+ 5 VDC | + 1 A / + 0.6 A | 68% | 65% |
| KAD07512D | 85~265 VAC | 6.6 WATTS | + 5 /+ 12 VDC | + 0.6 A / + 0.3 A | 75% | 72% |

CIRCUIT SCHEMATIC

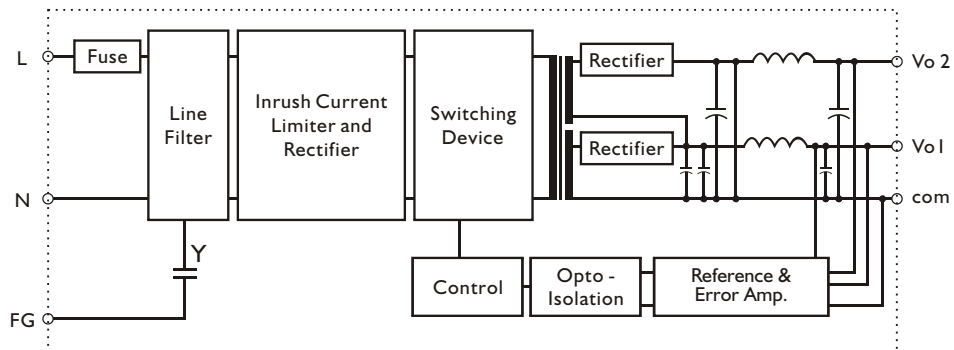
- Block diagram for KAD07 series with single output



- Block diagram for KAD07 series with dual output



- Block diagram for KAD07503D & KAD07512D



SPECIFICATION

All Specifications Typical At Nominal Line, Full Load, 25°C Unless Otherwise Noticed

GENERAL

| Characteristics | Conditions | min. | typ. | max. | unit |
|----------------------|--------------------------------|-------|------|-------|--------|
| Switching frequency | Vi nom, Io nom | 80 | | | KHz |
| Isolation voltage | Input / Output | 3,000 | | | VAC |
| Isolation resistance | Input / Output, @ 500VDC | 100 | | | MΩ |
| Ambient temperature | Operating at Vi nom, Io nom | -20 | | + 71 | °C |
| Derating | Vi nom, Io nom + 5 l to + 71°C | | | 2 | % / °C |
| Storage temperature | Non operational | -40 | | + 100 | °C |
| Relative humidity | Vi nom, Io nom | | | 95 | % RH |
| Dimension | L58 x W45 x H18.5 | | | | mm |
| Cooling | Free air convection | | | | |
| Base material | Plastic | | | | |

INPUT SPECIFICATIONS

| Characteristics | Conditions | min. | typ. | max. | unit |
|---------------------|----------------|-------------|------|------|------|
| Rated input voltage | Io nom | 85 | | 240 | VAC |
| Input voltage range | Io nom | AC in | 85 | 265 | VAC |
| | | DC in | 120 | 370 | VDC |
| Line frequency | Vi nom, Io nom | 47 | | 63 | Hz |
| Inrush current | Io nom | Vi : 115VAC | | 10 | A |
| | | Vi : 230VAC | | 18 | A |

OUTPUT SPECIFICATIONS

| Characteristics | Conditions | min. | typ. | max. | unit | |
|-------------------------|----------------------------------|---------------------------|------|----------------------|--------|---|
| Output voltage accuracy | | | | ± 2 | % | |
| Minimum load | Vi nom | 0 | | | % | |
| | single output models | | | | | |
| | dual output models (each output) | 20 | | | % | |
| Line regulation | Io nom, Vi min ...Vi max | | | ± 1 | % | |
| Load regulation | Vi nom, Io min ...Io nom | | | single output models | ± 2 | % |
| | | | | dual output models | ± 5 | % |
| Transient recovery time | Vi nom, Io nom = I ↔ 0.5 Io nom | | 300 | | μs | |
| Temperature coefficient | Vi nom, Io nom | | | ± 0.02 | % / °C | |
| Ripple & noise | Vi nom, Io nom, BW = 20MHz | Vout x ± 1% p-p max. | | | mV | |
| Efficiency | Vi nom, Io nom, Po / Pi | Up to 79%, See model list | | | | |

CONTROL AND PROTECTION

| | |
|----------------------|-----------------------|
| Input fuse | T2A / 250VAC internal |
| Output short circuit | By current limited |

APPROVALS AND STANDARDS

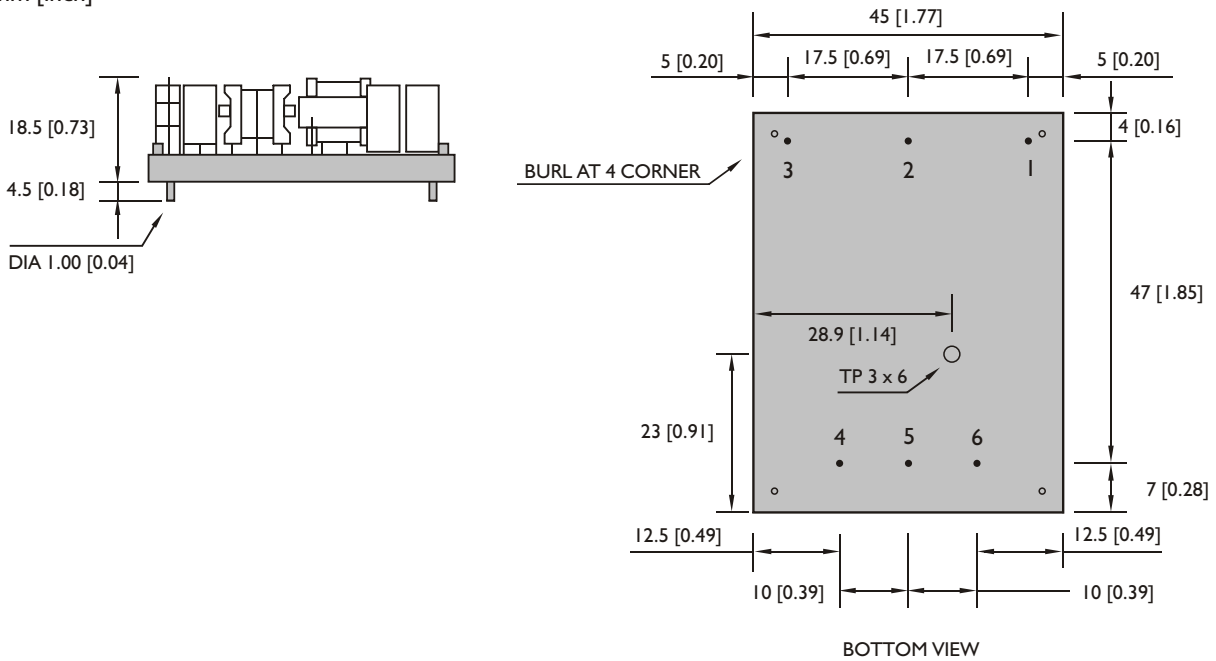
| | |
|----------|-------------------------|
| UL / cUL | UL1950 |
| TUV | EN60950 |
| CE | EN55022 class B for EMI |
| | EN50082-1 for EMS |

KAD07 SERIES

OPEN FRAME
AC - DC POWER MODULE

MECHANISM & PIN CONFIGURATION

mm [inch]



PHYSICAL CHARACTERISTICS

| | |
|---------------|---|
| SIZE | 58 x 45 x 18.5 mm 2.28 x 1.77 x 0.73 inches |
| BASE MATERIAL | Plastic |
| WEIGHT | 42 g |

PIN ASSIGNMENT

| GENERAL | | | | | | |
|---------|------|---------|-------|-------|--------|-------|
| PIN NO. | 1 | 2 | 3 | 4 | 5 | 6 |
| SINGLE | LINE | NEUTRAL | F. G. | Vo - | NO PIN | Vo + |
| DUAL | LINE | NEUTRAL | F. G. | Vo - | com | Vo + |
| | LINE | NEUTRAL | F. G. | + 5V | com | +3.3V |
| | LINE | NEUTRAL | F. G. | + 12V | com | +5V |

DERATING

