

# KAM07 SERIES



AC - DC POWER MODULE  
6.3 ~ 7.6W UL / cUL / TUV / CE

## FEATURES

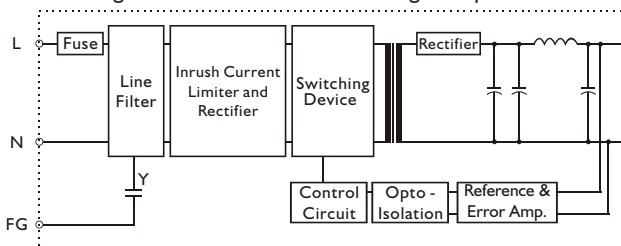
- AC/DC POWER MODULE
- UNIVERSAL INPUT 85 ~ 265 VAC
- HIGH EFFICIENCY UP TO 79%
- SHORT CIRCUIT PROTECTION
- INTERNAL INPUT FILTER
- 2 YEARS WARRANTY

## MODEL LIST

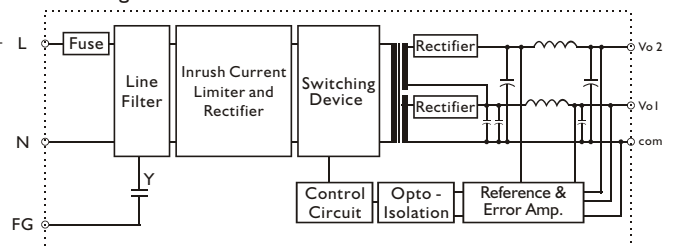
| MODEL NO.                   | INPUT VOLTAGE | OUTPUT WATTAGE | OUTPUT VOLTAGE | OUTPUT CURRENT | EFF. (typ.) | EFF. (min.) |
|-----------------------------|---------------|----------------|----------------|----------------|-------------|-------------|
| <b>Single Output Models</b> |               |                |                |                |             |             |
| KAM0703                     | 85~265 VAC    | 6.6 WATTS      | +3.3 VDC       | 2000 mA        | 72%         | 69%         |
| KAM0705                     | 85~265 VAC    | 7.5 WATTS      | + 5 VDC        | 1500 mA        | 75%         | 72%         |
| KAM0712                     | 85~265 VAC    | 7.5 WATTS      | + 12 VDC       | 630 mA         | 78%         | 75%         |
| KAM0715                     | 85~265 VAC    | 7.5 WATTS      | + 15 VDC       | 500 mA         | 78%         | 75%         |
| KAM0724                     | 85~265 VAC    | 7.6 WATTS      | + 24 VDC       | 320 mA         | 79%         | 77%         |
| <b>Dual Output Models</b>   |               |                |                |                |             |             |
| KAM0712D                    | 85~265 VAC    | 7.6 WATTS      | ± 12 VDC       | ± 320 mA       | 77%         | 74%         |
| KAM0715D                    | 85~265 VAC    | 7.5 WATTS      | ± 15 VDC       | ± 250 mA       | 78%         | 75%         |
| KAM07503D                   | 85~265 VAC    | 6.3 WATTS      | +3.3 /+ 5 VDC  | +1 A /+0.6A    | 68%         | 65%         |
| KAM07512D                   | 85~265 VAC    | 6.6 WATTS      | +5 /+12 VDC    | +0.6A /+0.3A   | 75%         | 72%         |

## CIRCUIT SCHEMATIC

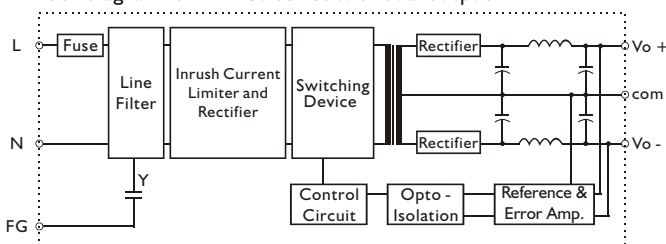
• Block diagram for KAM07 series with single output



• Block diagram for KAM07503D & KAM07512D



• Block diagram for KAM07 series with dual output



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AC - DC POWER MODULE

## 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     |
| Case temperature     | Operating at Vi nom, Io nom     |       |         | + 85  |        |
| Derating             | Vi nom, Io nom + 5 l to + 71 °C |       |         | 2     | % / °C |
| Storage temperature  | Non operational                 | -40   |         | + 100 | °C     |
| M.T.B.F.             | According to MIL-HDBK-217F, G40 |       | 265,000 |       | Hrs    |
| Relative humidity    | Vi nom, Io nom                  |       |         | 95    | % RH   |
| Dimension            | L58 x W45 x H18.5               |       |         |       | mm     |
| Cooling              | Free air convection             |       |         |       |        |
| Case 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       |      | 265  | VAC  |
|                     |                | DC in       |      | 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 | Vi nom, Io nom                   |                           |      | ± 2    | %      |
| Minimum load            | Vi nom                           | 0                         |      |        | %      |
|                         | dual output models (each output) | 20                        |      |        | %      |
| Line regulation         | Io nom, Vi min ... Vi max        |                           |      | ± 1    | %      |
| Load regulation         | Vi nom, Io min .. Io nom.        |                           |      | ± 2    | %      |
|                         | dual output models               |                           |      | ± 5    | %      |
| Transient recovery time | Vi nom, Io nom = I ↔ 0.5 Io nom  |                           | 300  |        | μ S    |
| 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       |

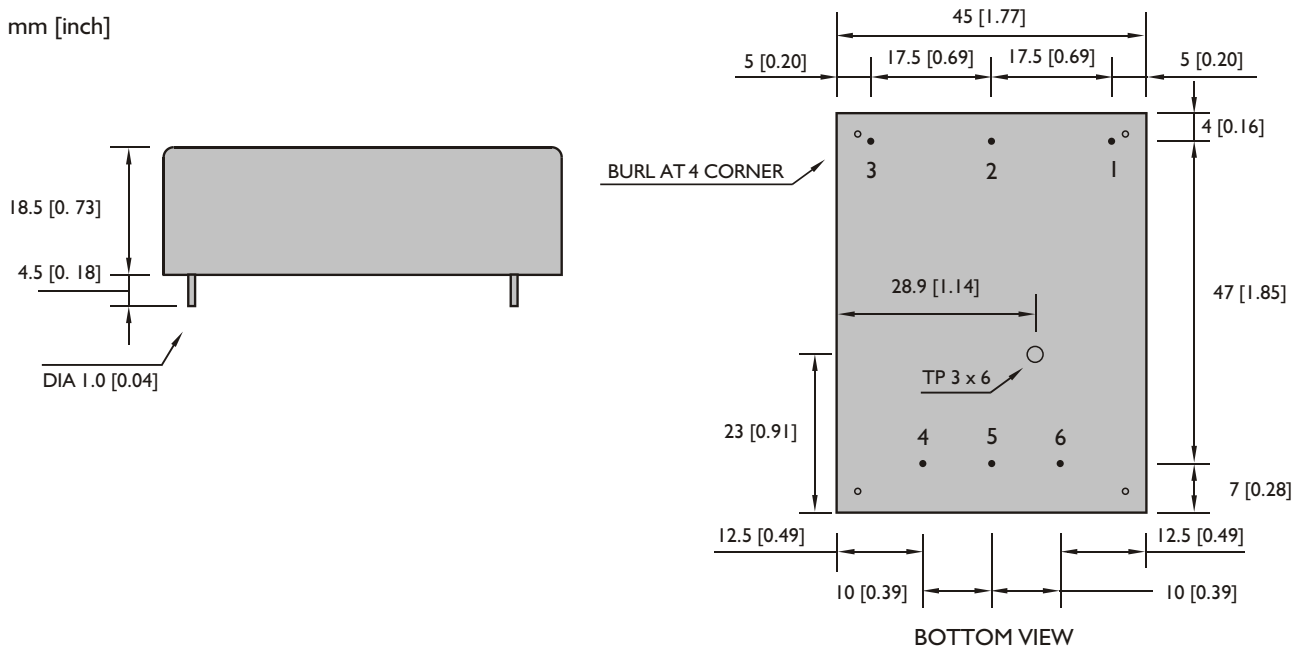


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## MECHANISM & PIN CONFIGURATION

mm [inch]



## PHYSICAL CHARACTERISTICS

|               |   |
|---------------|---|
| CASE SIZE     | 58 x 45 x 18.5 mm 2.28 x 1.77 x 0.73 inches |
| CASE MATERIAL | Plastic                                     |
| WEIGHT        | 85 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

