KAM10 SERIES

AC-DC POWER MODULE

10W ***UL / cUL / TUV / CE***

KAM10 12 D

WATTAGE

03 : 3.3V OUT
05 : 5V OUT
12 : 12V OUT
15 : 15V OUT
24 : 24V OUT

* : SINGLE OUTPUT
D : DUAL OUTPUT

* = BLANK

MODEL LIST

MODEL NO.	INPUT VOLTAGE	OUTPUT WATTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT	EFF. (TYP.)	EFF. (MIN.)	CASE
Single Output Models							
KAM1003	85~265 VAC	10 WATTS	+3.3 VDC	3000 mA	70%	67%	M1
KAM1005	85~265 VAC	10 WATTS	+ 5 VDC	2000 mA	72%	70%	M1
KAM1012	85~265 VAC	10 WATTS	+ 12 VDC	840 mA	77%	75%	M1
KAM1015	85~265 VAC	10 WATTS	+ 15 VDC	670 mA	77%	75%	M1
KAM1024	85~265 VAC	10 WATTS	+ 24 VDC	420 mA	78%	76%	M1
Dual Output Models							
KAM1012D	85~265 VAC	10 WATTS	± 12 VDC	± 420 mA	77%	75%	M1
KAM1015D	85~265 VAC	10 WATTS	± 15 VDC	± 335 mA	77%	74%	M1
KAM10503D	85~265 VAC	10 WATTS	+5 / +3.3 VDC	+0.8 / +2 A	74%	72%	M1

FEATURES

* AC/DC POWER MODULE
* UNIVERSAL INPUT 85 ~ 265 VAC
* HIGH EFFICIENCY UP TO 78%
* SHORT CIRCUIT PROTECTION
* INTERNAL INPUT FILTER
* 2 YEARS WARRANTY

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SPECIFICATION

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

GENERAL SPECIFICATION

* Switching frequency: ..... 100KHz (typ.)
* Isolation voltage: ..... 3,000VAC (min.)
* Isolation resistance: ..... 100M Ω(min.)
* Operating ambient temperature: ..... -20 to +71℃
* Storage temperature: ..... -40 to +100℃
* Relative humidity: ..... 20% to 95%RH
* M.T.B.F.: ..... 255,000Hrs at @ GF40, according to MIL-HDBK-217F
* Cooling: ..... Free air convection
* Transient recovery time: ..... 1000μS, 50% load step change
* Temperature coefficient: ..... ±0.02% / ℃
* Dimension: ..... 76.2 x 50.8 x 22.6mm

INPUT SPECIFICATIONS

* Input voltage range / frequency: ..... 85 ~ 265VAC / 47 ~ 63Hz
* Max. Input voltage: 265VAC
* Inrush current: ..... < 10A at 110VAC
  < 18A at 230VAC

OUTPUT SPECIFICATIONS

* Output voltage accuracy: ..... ±2% at Vo_nom(max.)
* Minimum load: ..... None at Vo_nom for single output models
  20% FL each output at Vo_nom for dual output models
* Line regulation: ..... ±1% at Vo_nom
* Load regulation: ..... ±2% (NL ~ FL) at Vo_nom for single output models
  ±2% (20% ~ FL) at Vo_nom for dual output models
* Ripple & noise: ..... Vout x ±1%mV p-p (max.)
  ≦ 100mV for 3.3V_out
* Efficiency: ..... Up to 78%, see model list
* Derating: ..... +51 to +71℃, 2%/℃
* Case material: ..... Non-conductive black plastic
* External trim ADJ. Range: ..... ±10% for 5V ~ 24V_out at 5% ~100% load
  (for single output only)
  ±5% for 3.3V_out at 5% ~ 100% load
  (see Fig. 1 & table 1 for trim connection)

CONTROL AND PROTECTION

* Input fuse: ..... T2A / 250VAC
* Output short circuit: ..... Current limited

APPROVALS AND STANDARD

UL / cUL: UL1950
TUV: IEC60950
CE: ..... EN55022 for EMI
EN50082-1 for EMS

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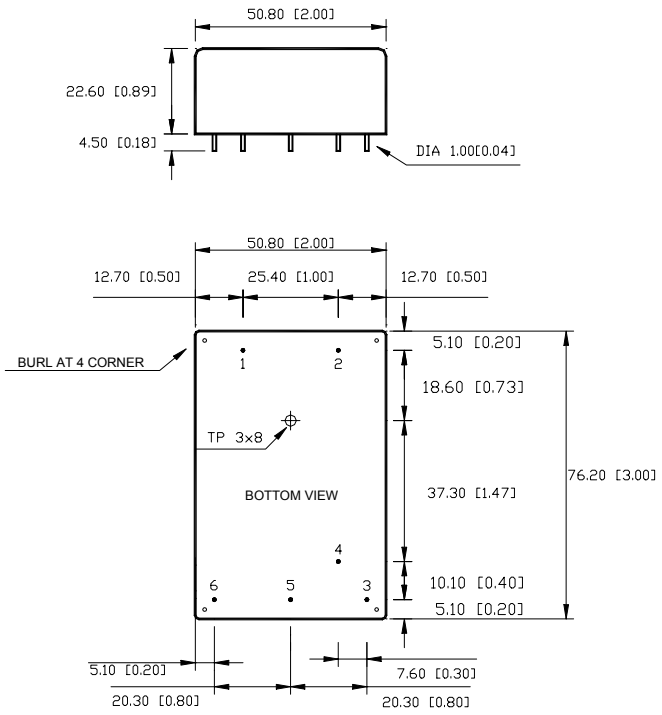
MECHANISM & PIN CONFIGURATION

mm [inch]



PHYSICAL CHARACTERISTICS

CASE SIZE	76.2 x 50.8 x 22.6mm 3 x 2 x 0.89inch
CASE MATERIAL	Plastic
WEIGHT	160 g

PIN ASSIGMENT

PIN NO.	1	2	3	4	5	6
SINGLE	AC IN	AC IN	Vo-	Trim	NO PIN	Vo+
DUAL	AC IN	AC IN	Vo-	NO PIN	com	Vo+

Fig. 1 Trim connection (For single output only)

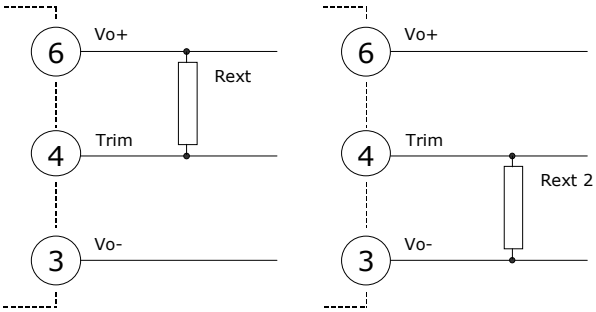


Table 1 Typical resistor values for various output voltage adjustment settings

Type	Rext 1		Rext 2	
	*U*o nom -5%	*U*o nom -10%	*U*o nom +5%	*U*o nom +10%
KAM1003	180K Ω	56K Ω	100K Ω	20K Ω
KAM1005	39K Ω	15K Ω	9.1K Ω	2.2K Ω
KAM1012	51K Ω	20K Ω	10K Ω	2K Ω
KAM1015	150K Ω	68K Ω	20K Ω	4.7K Ω
KAM1024	130K Ω	56K Ω	12K Ω	2K Ω

Derating: