

Encapsulated PSU

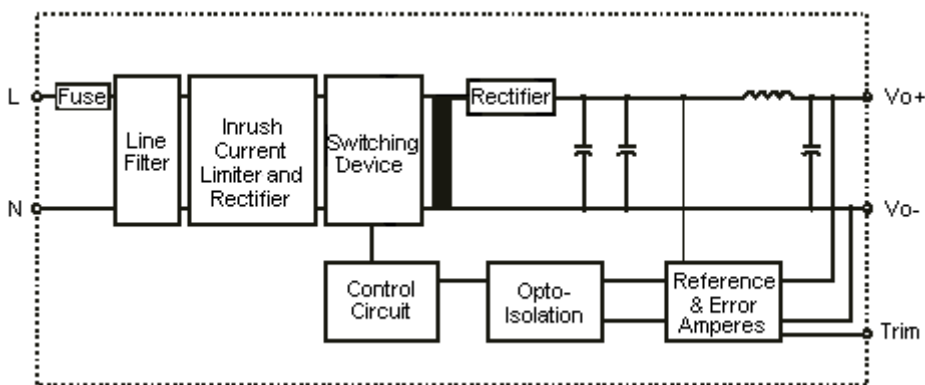
KAM10 Series



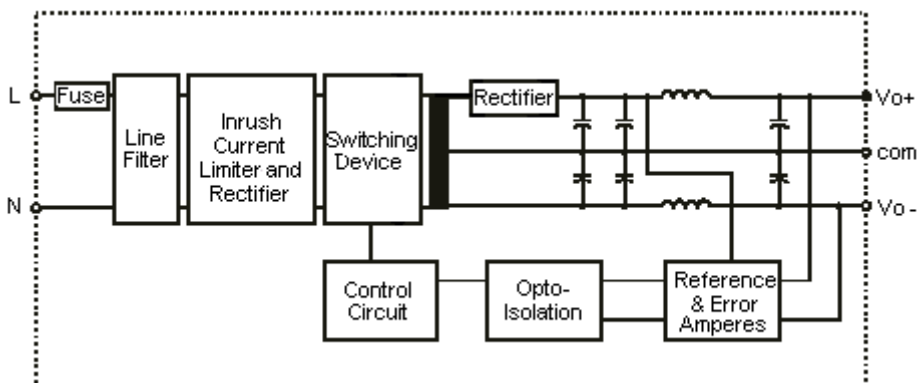
Features:

- AC/DC power module.
- Universal input 85 to 265V ac.
- High efficiency up to 78%.
- Short circuit protection.
- Internal input filter.
- 2 years warranty.

Block diagram for KAM10 series with single output



Block diagram for KAM10 series with dual output



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Specifications:

All specifications typical at nominal line, full load, 25°C unless otherwise noticed.

Characteristics	Conditions	Minimum	Typical	Maximum	Unit
Switching frequency	Vi nominal, Io nominal	-	100	-	KHz
Isolation voltage	Input/output	3000	-	-	V ac
Isolation resistance	Input/output, at 500V dc	100	-	-	MΩ
Ambient temperature	Operating at Vi nominal, Io nominal	-20	-	+71	°C
Case temperature		-	-	+80	-
Derating	Vi nominal, Io nominal +51 to +71°C	-	-	2	%/°C
Storage temperature	Non-operational	-40	-	+100	°C
MTBF	According to MIL-HDBK-217F, GF40	-	255,000	-	Hrs
Relative humidity	Vi nominal, Io nominal	-	-	95	% RH
Dimension	(L) 76.2 x (W) 50.8 x (H) 22.6	-	-	-	mm
Cooling	Free air convection	-	-	-	-
Case material	Plastic	-	-	-	-

Input Specifications

Characteristics	Conditions	Minimum	Typical	Maximum	Unit	
Rated input voltage	Io nominal	85	-	265	V ac	
Input voltage range	Io nominal		AC in			-
		DC in	120	370	V dc	
Line frequency	Vi nominal, Io nominal	47	-	63	Hz	
Inrush current	Io nominal	Vi : 115V ac	-	-	10	A
		Vi : 230V ac	-	-	18	

Output Specifications

Characteristics	Conditions	Minimum	Typical	Maximum	Unit	
Output voltage accuracy	Vi nominal, Io nominal	-	-	±2	%	
Minimum load	Vi nominal	single output models	0	-		
		dual output models (each output)	20	-		
Line regulation	Io nominal, Vi minimum to Vi maximum	-	-	±1		
Load regulation	Vi nominal	single output models	-	-		±2
	Io minimum to Io nominal	dual output models	-	-		
Transient recovery time	Vi nominal, Io nominal = I ⇔ 0.5 Io nominal	-	1000	-	μS	
Temperature coefficient	Vi nominal, Io nominal	-	-	±0.02	%/°C	
Ripple and noise	Vi nominal, Io nominal, BW = 20MHz	3.3V models	-	-	100-	mV
		5V to 24V models	Vout x 1% p-p maximum			
External trim ADJ Range I) (for single output only)	Io = 5% to 100%	3.3V models	-5	-	+5	%
		5V to 24V models	-10	-	+10	
Efficiency	Vi nominal, Io nominal, Po/Pi	Up to 78%				

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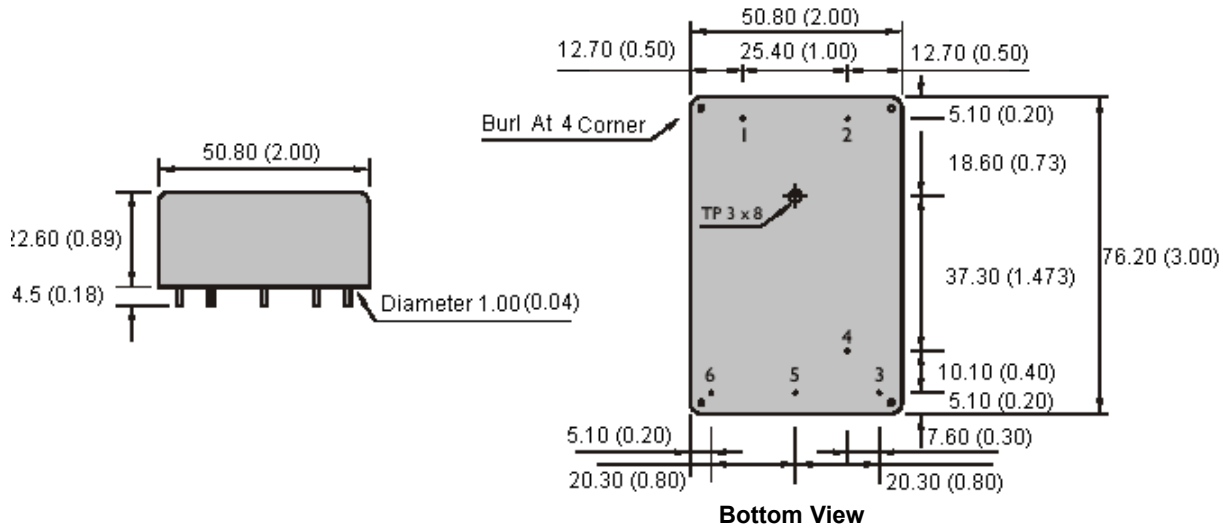
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Control Protection

Input fuse	T2A/250V ac internal
Output short circuit	By current limited

Mechanism and Pin Configuration



Dimensions : Millimetres

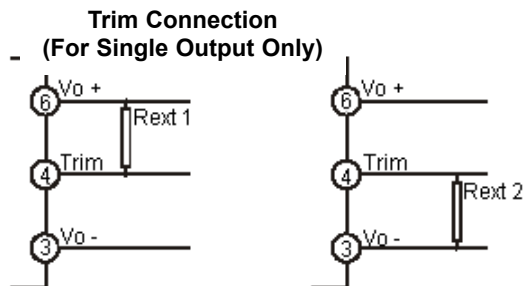
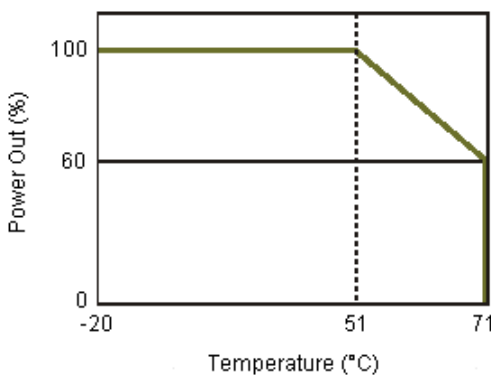
Physical Characteristics

Case size	76.2 x 50.8 x 22.6mm (3 x 2 x 0.89 inches)
Case material	Plastic
Weight	160g

General Pin Assignment

PIN Number	1	2	3	4	5	6
Single	AC IN	AC IN	Vo-	Trim	No Pin	Vo+
Dual			Vo- or +3.3V	No Pin	com	Vo+ or +5V

Derating



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Typical resistor values for various output voltage adjustment settings

Type	Rext 1		Rext 2	
	Uo nominal -5% (K Ω)	Uo nominal -10% (K Ω)	Uo nominal +5% (K Ω)	Uo nominal +10% (K Ω)
KAM 1005	39	15	9.1	2.2
KAM 1012	51	20	10	2
KAM 1024	130	56	12	2

Specification Table

Description	Type	Input Voltage (V ac)	Output Wattage (Watts)	Output Voltage (V dc)	Output Current (mA)	EFF (Typical) (%)	EFF (Minimum) (%)	Part Number
PSU, Encapsulated	Single Output	85 to 265	10	+5	2000	72	70	KAM1005
				+12	840			KAM1012
	Dual Output			+12	\pm 420	77	75	KAM1012D
				+15	\pm 335			KAM1015D
	Single Output			+24	420	78	76	KAM1024

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