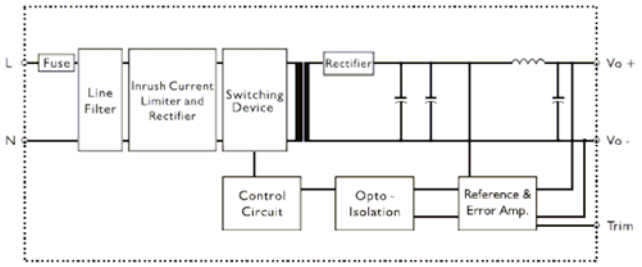
CA10KAM-Series

AC-DC POWER MODULE
10W SINGLE & DUAL OUTPUTS
Universal 85 ~ 265 VAC / 120-370VDC
High Efficiency
Internal Input Filter
Short Circuit Protection
2 Year Warranty

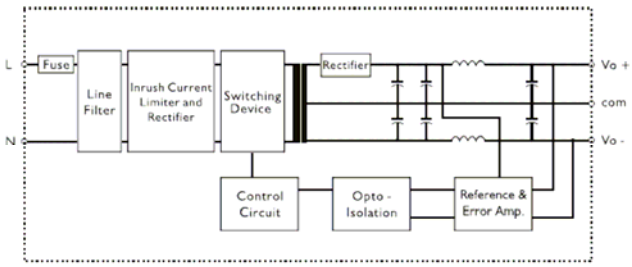
SINGLE OUTPUT MODELS						
Part Number	**Input Voltage**	**Output Wattage**	**Output Voltage**	**Output Current**	**Efficiency (typical)**	**Efficiency (minimum)**
CA10KAM03	85~265VAC	10 Watts	3.3 VDC	3000mA	70%	67%
CA10KAM05	85~265VAC	10 Watts	5VDC	2000mA	72%	70%
CA10KAM12	85~265VAC	10 Watts	12VDC	840mA	77%	75%
CA10KAM15	85~265VAC	10 Watts	15VDC	670mA	77%	75%
CA10KAM24	85~265VAC	10 Watts	24VDC	420mA	78%	76%

DUAL OUTPUT MODELS						
Part Number	**Input Voltage**	**Output Wattage**	**Output Voltage**	**Output Current**	**Efficiency (typical)**	**Efficiency (minimum)**
CA10KAM12D	85~265VAC	10 Watts	+/-12VDC	+/-420mA	77%	75%
CA10KAM15D	85~265VAC	10 Watts	+/-15VDC	+/-335mA	77%	74%
CA10KAM503D	85~265VAC	10 Watts	+5/+3.3VDC	+0.8/+2A	74%	72%

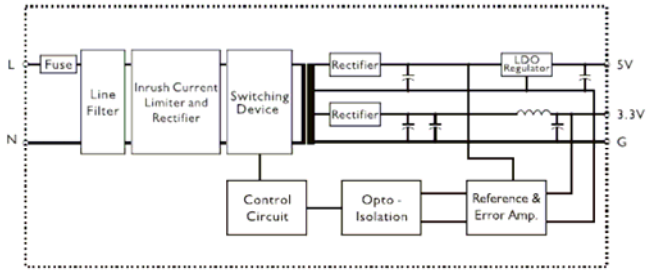
Block diagram for CA10KAM series with single output



Block diagram for CA10KAM series with dual output



Block diagram for CA10KAM503D



CA10KAM-Series

All Specifications Typical at Nominal Line, Full Load, 25 C Unless Noted Otherwise

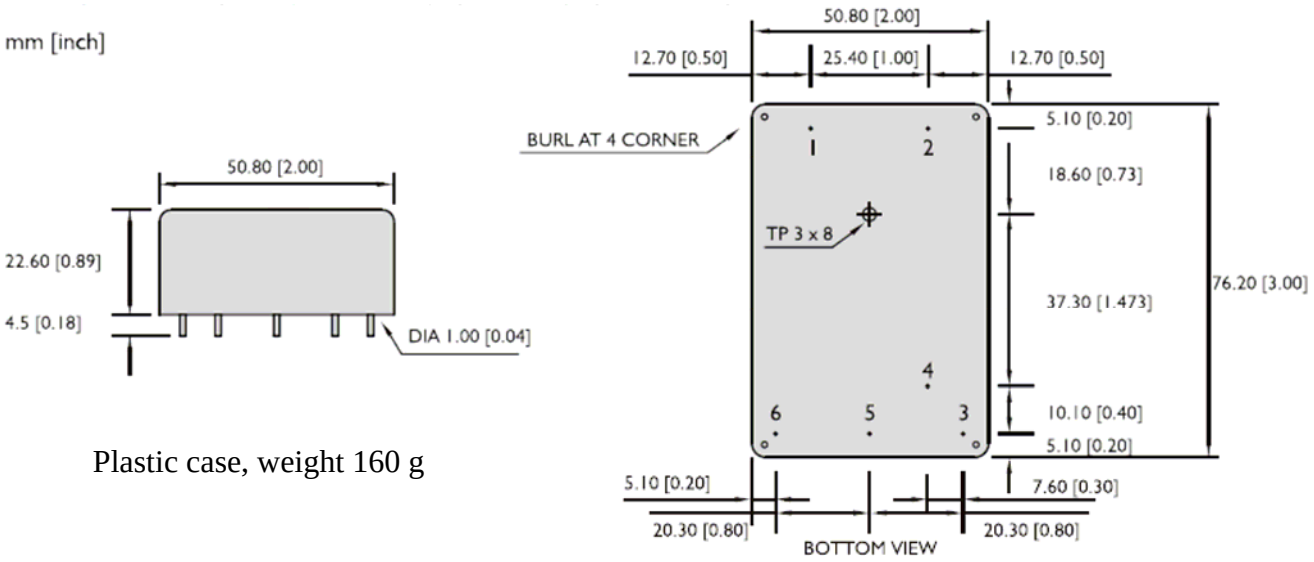
GENERAL					
Characteristics	**Conditions**	**Min**	**Typ**	**Max**	**Unit**
Switching frequency	Vi nom, Io nom		100		KHz
Isolation Voltage	Input/Output	3,000			VDC
Isolation Resistance	Input/Output, @500VDC	100			MΩ
Ambient Temp.	Operating at Vi nom Io nom	-20		+71	C
Case Temperature	Operating at Vi nom, Io nom			+80	C
Derating	Vi nom, Io nom +51 to +71C			2	%/C
Storage Temp.	Non Operational	-40		+100	C
Relative Humidity	Vi nom, Io nom			95	% RH
Cooling	Free air convection				

INPUT SPECIFICATIONS						
Characteristics	**Conditions**		**Min**	**Typ**	**Max**	**Unit**
Rated Input Voltage	Io nom		85		265	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	Vi nom, Io nom				+/-2	%
Minimum load	Vi nom single output model		0			%
	Vi nom dual output model (each output)		20			%
Line regulation	Io nom, Vi min … Vi max				+/-1	%
Load regulation	Vi nom, Io 0 … Io nom, single output models				+/-2	%
	Vi nom, Io min … Io nom, dual output models				+/-2	%
Transient recovery time	Vi nom, Io = to 0.5 Io nom			1,000		uS
Temperature coefficient	Vi nom, Io nom				+/-0.02	%/C
Ripple & Noise	Vi nom, Io nom, BW =20MHz	3.3V models			100	mV
		5V-24V model	Vout x +/-1%p-p max.			mV
External trim Adj Range (for single output only)	Io = 5% …100%		-10		+10	%
Efficiency	Vi nom, Io nom, Po/Pi		Up to 78%, see model list			

Control & Protection	
Input Fuse	T2A/250VAC internal
Output short circuit	By current limited

CA10KAM-Series



Plastic case, weight 160 g

PIN ASSIGNMENT						
Pin No	**1**	**2**	**3**	**4**	**5**	**6**
SINGLE	AC IN	AC IN	Vo-	TRIM	NO PIN	Vo +
DUAL	AC IN	AC IN	Vo- or +3.3V	NO PIN	com	Vo + or +5V

DERATING

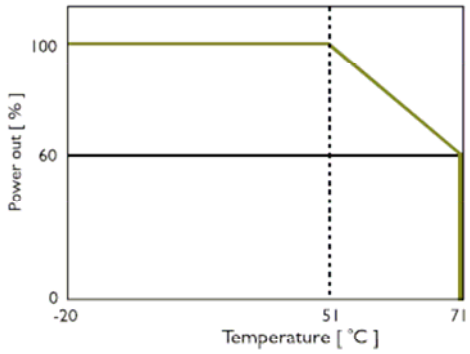
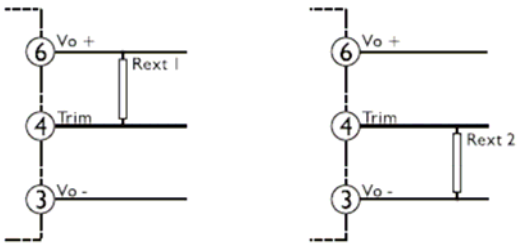


Fig. 1 Trim connection

(For single output only)



Typical resistor values for various output voltage adjustment settings

TYPE	Rext 1		Rext 2	
	Uo nom –5%	Uo nom –10%	Uo nom +5%	Uo nom +10%
CA10KAM03	180KΩ	56KΩ	100KΩ	20KΩ
CA10KAM05	39KΩ	15KΩ	9.1KΩ	2.2KΩ
CA10KAM12	51KΩ	20KΩ	10KΩ	2KΩ
CA10KAM15	150KΩ	68KΩ	20KΩ	4.7KΩ
CA10KAM24	130KΩ	56KΩ	12KΩ	2KΩ