KAS07 SERIES



AC - DC POWER MODULE
7W SINGLE OUTPUT

FEATURES

- AC/DC POWER MODULE
- UNIVERSAL INPUT 75 ~ 265 VAC, 47 - 440Hz
- HIGH EFFICIENCY UP TO 80%
- SHORT CIRCUIT PROTECTION
- COMPLY WITH ErP
- 3 YEARS WARRANTY

C US UL 60950-1 EN 60950-1 CE

MODEL LIST

MODEL NO.	INPUT VOLTAGE	OUTPUT WATTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT	EFF. (min.)	EFF. (typ.)	EFF. (avg.)	CAPACITOR LOAD (max.)
Single Output Models								
KAS0703	75~265 VAC	6.6 WATTS	+ 3.3 VDC	2000 mA	70%	72%	71%	7000 μF
KAS0705	75~265 VAC	7 WATTS	+ 5 VDC	1400 mA	72%	74%	71%	7000 μF
KAS0709	75~265 VAC	7 WATTS	+ 9 VDC	780 mA	74%	76%	75%	2700 μF
KAS0712	75~265 VAC	7.2 WATTS	+ 12 VDC	600 mA	76%	78%	75%	1500 μF
KAS0715	75~265 VAC	7.2 WATTS	+ 15 VDC	480 mA	76%	78%	75%	1000 μF
KAS0724	75~265 VAC	7.2 WATTS	+ 24 VDC	300 mA	78%	80%	75%	560 μF

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			132		KHz
Isolation voltage	Input - Output		3,000/4,242			VAC/VDC
Isolation resistance	Input - Output, @ 500VDC		100			MΩ
Ambient temperature	Operating at Vi nom, Io nom		-40		+ 71	°C
Case temperature	Operating at Vi nom, Io nom				+ 85	°C
Derating	Vi nom, +51 to + 71°C	3.3V & 5V			2	% / °C
	Vi nom, +61 to + 71°C	Other			4	% / °C
Storage temperature	Non operational		-40		+100	°C
Relative humidity	Vi nom, Io nom		20		95	% RH

SPECIFICATION

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GENERAL

Characteristics	Conditions		min.	typ.	max.	unit
Temperature coefficient	Vi nom, Io min				± 0.03	% / °C
MTBF	Bellcore issue 6 @40°C, GB	3.3V & 12V		1,032,000		Hours
		5V		1,024,000		Hours
		9V & 15V		1,036,000		Hours
		24V		1,088,000		Hours
Altitude during operation	IEC 60068-2-13				4,850	m
Dimension				L50.8 x W25.4 x H19.0		mm
Cooling	Free air convection					

INPUT SPECIFICATIONS

Characteristics	Conditions		min.	typ.	max.	unit
Rated input voltage	Io nom		100		240	VAC
Input voltage range	Ta min ... Ta max, Io nom	AC in	75		265	VAC
		DC in	105		375	VDC
Input current	Vi : 115 / 230 VAC, Io nom			145 / 100		mA
Rated input current	Vi : 85 VAC, Io nom				250	mA
Line frequency	Vi nom, Io nom		47		440	Hz
Inrush current	Vi : 115 / 230 VAC, Io nom				10/18	A
Leakage current	Input - Output				0.25	mA
Standby power consumption	Vi nom, Io = No Load				0.3	W

OUTPUT SPECIFICATIONS

Characteristics	Conditions	min.	typ.	max.	unit
Output voltage accuracy	Vi nom, Io nom			± 2	%
Minimum load	Vi nom	0			%
Line regulation	Io nom, Vi min ...Vi max			± 1	%
Load regulation	Vi nom, Io min ...Io nom			± 2	%
Hold up time	Vi:115/230 VAC, Io nom	15 / 30			ms
Turn on time	Vi nom, Io nom			1,000	ms
Rise time	Vi nom, Io nom			150	ms
Fall time	Vi nom, Io nom			150	ms
Transient recovery time	Vi nom, 1~0.5 Io nom			2	ms
Ripple & noise	Vi nom, Io nom, BW = 20MHz			100	mV
Efficiency	Vi nom, Io nom, Po / Pi	Up to 80%, See model list and typ efficiency curve			

CONTROL AND PROTECTION

Characteristics	Conditions	min.	typ.	max.	unit
Input fuse		T1A / 250VAC internal			
Output short circuit		Hiccup mode			
Rated over load protection	Vi nom (see typ current limited curve)	130		180	%

SPECIFICATION

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APPROVALS AND STANDARDS

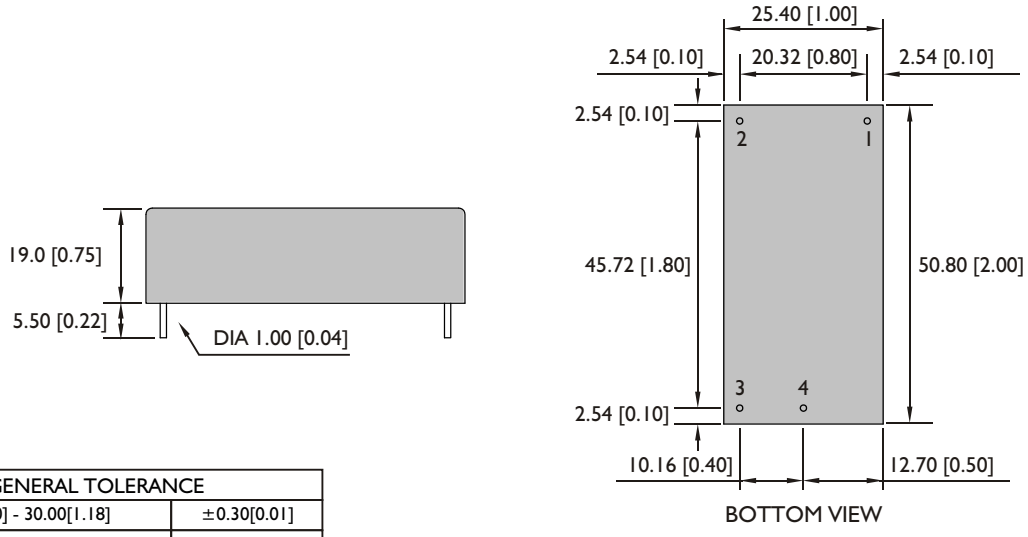
cTUVus	UL 60950-1
TUV	EN 60950-1
CE	EN 61000-6-3, EN 55022 Class B, EN 61000-3-2, EN 61000-3-3 EN 61000-6-2, EN 55024, EN 61000-4-2, EN 61000-4-3 EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN 61000-4-8 EN 61000-4-11, EN 61204-3
Vibration resistance	meet IEC 60068-2-6 (10-500 Hz, 2G, along X, Y, Z each Axis, 60 min for each Axis)
Shock resistance	meet IEC 60068-2-27 (15G, 11ms, 3 axes, 6 Faces, 3 times for each Face)

PHYSICAL CHARACTERISTICS

Case size	50.8 x 25.4 x 19.0mm (2.0 x 1.0 x 0.75 inches)
Case material	Plastic
Weight	45g
Potting material	Epoxy

MECHANISM & PIN CONFIGURATION

mm [inch]



GENERAL TOLERANCE	
0.00[0.00] - 30.00[1.18]	±0.30[0.01]
30.00[1.18] - 120.00[4.72]	±0.50[0.02]

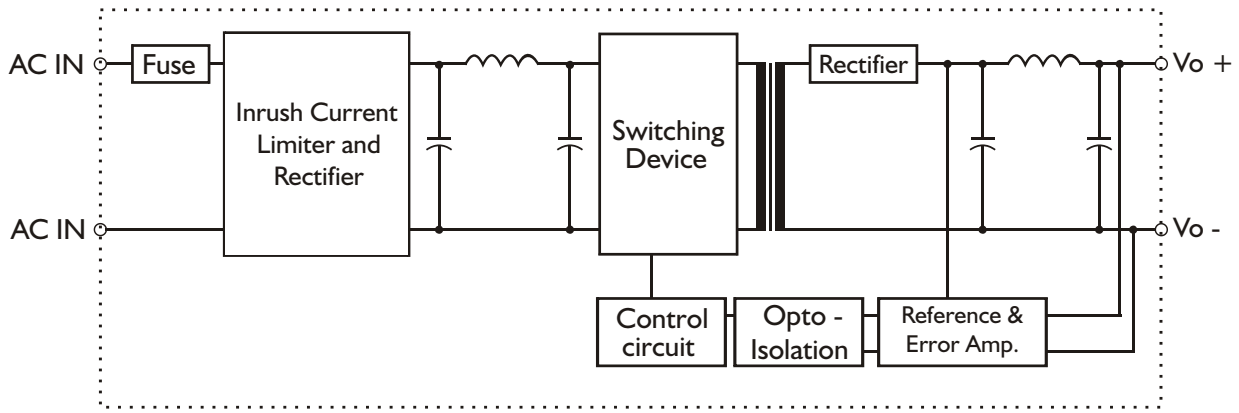
PIN ASSIGNMENT

GENERAL

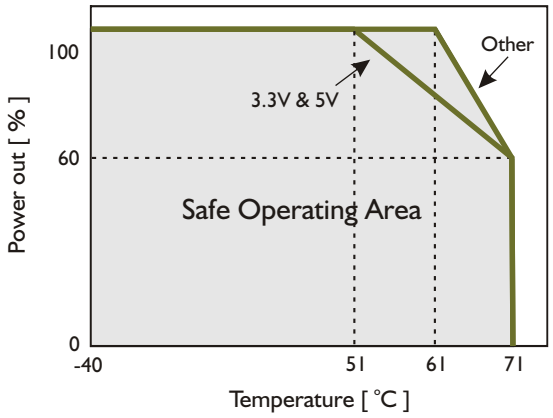
PIN NO.	1	2	3	4
SINGLE	AC IN	AC IN	Vo +	Vo -

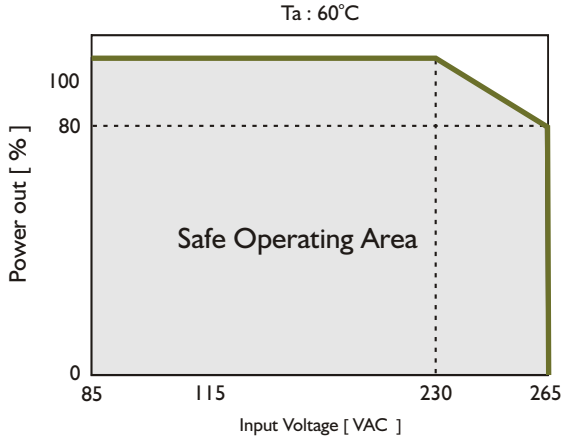
CIRCUIT SCHEMATIC

• Block diagram for KAS07 series with single output

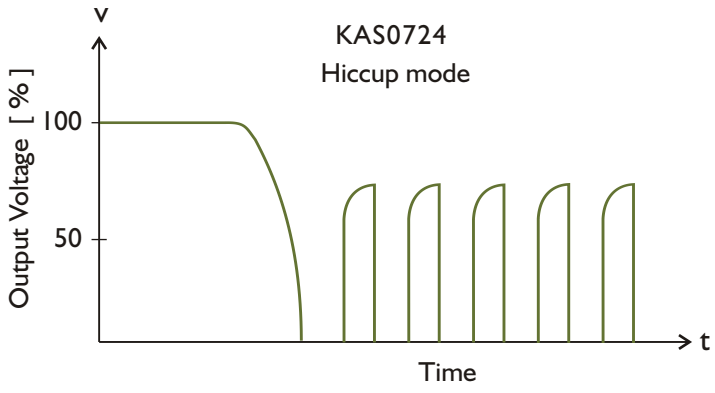


DERATING CURVE





TYP. CURRENT LIMITED CURVE



TYP. EFFICIENCY CURVE

