Size: 1.46in x 1.08in x 0.79in (37mm x 27.5mm x 20mm)

FEATURES

- Universal Input Voltage Range of 90~264VAC or 120~370VDC
- Switching Power Module for PCB Mount
- Low Ripple & Noise
- Isolation Class II
- Short Circuit, Over Voltage, and Over Power Protection
- Fully Encapsulated Plastic Case
- High Efficiency
- CE, CB, and UL Safety Approvals

DESCRIPTION

The PSAOD10 series of AC/DC ITE/Household power modules offers up to 10 watts of output power in small 1.46” x 1.08” x 0.79” PCB mountable package. This series consists of single output models with a universal input voltage range of 90~264VAC or 120~370VDC. Each model in this series features low ripple & noise, a fully encapsulated plastic case, high efficiency, as well as short circuit, over voltage, and over power protection. This series is isolation class II and has CE, CB, and UL safety approvals. Please contact factory for order information.

MODEL SELECTION TABLE

Model Number	Input Voltage Range	Output Voltage	Output Current	Ripple & Noise(2)	Maximum Capacitive Load	Efficiency	Output Power
PSAOD10-5S	90~264VAC (120~370VDC)	5VDC	2000mA	<150mVp-p	3,500uF	80%	10W
PSAOD10-12S		12VDC	833mA	<150mVp-p	700uF	84%	
PSAOD10-15S		15VDC	667mA	<160mVp-p	390uF	85%	
PSAOD10-24S		24VDC	417mA	1% Vout	180uF	85%	

SPECIFICATIONS

All specifications are based on 25°C, Nominal Input Voltage, and Maximum Output Current unless otherwise noted.
We reserve the right to change specifications based on technological advances.

SPECIFICATION	TEST CONDITIONS		Min	Typ	Max	Unit
INPUT SPECIFICATIONS						
Input Voltage Range(1)			90		264	VAC
			120		370	VDC
Frequency			47		440	Hz
Input Current	@115VAC, Full Load				230	mA
	@230VAC, Full Load				140	
Inrush Current	@115VAC				30	A
	@230VAC				60	
Leakage Current					0.25	mA
External Fuse	Mandatory			2A Slow Blow Type		
External Varistor	Mandatory			10S471K		
External Thermistor	Recommended			10R/8φ		
OUTPUT SPECIFICATIONS						
Output Voltage				See Table		
Voltage Accuracy				±2		%
Line Regulation	LL-HL			±0.2		%
Load Regulation	0-100%	5V & 12V Models		±1		%
		15V & 24V Models		±0.5		
Output Power				See Table		
Output Current				See Table		
Minimum Load			0			%
Maximum Capacitive Load				See Table		
Ripple & Noise(2)				See Table		
Hold-Up Time	@230VAC		30			mS
Temperature Coefficient				±0.02		%/°C
PROTECTION						
Short Circuit Protection	Hiccup Mode, Indefinite			Automatic Recovery		
Over Power Protection	Hiccup Technique			Automatic Recovery		
Over Voltage Protection				Zener Diode Clamp		

SPECIFICATIONS

All specifications are based on 25°C, Nominal Input Voltage, and Maximum Output Current unless otherwise noted.
We reserve the right to change specifications based on technological advances.

SPECIFICATION	TEST CONDITIONS	Min	Typ	Max	Unit
ENVIRONMENTAL SPECIFICATIONS					
Operating Temperature	With derating	-40		+70	ºC
Storage Temperature		-40		+85	ºC
Humidity			95		%RH
Cooling Method			Free Air Convection		
MTBF	MIL-HDBK-217F @25ºC	450,000			Hours
GENERAL SPECIFICATIONS					
Efficiency	@230VAC		See Table		
Isolation Voltage	Input-Output		3000		VAC
PHYSICAL SPECIFICATIONS					
Weight			1.23oz (35g)		
Dimensions (L x W x H)	Tolerance 0.018oz (±0.5mm)		1.46in x 1.08in x 0.79in (37mm x 27.5mm x 20mm)		
Case Material			Plastic Resin (Flammability to UL 94V-0)		
SAFETY CHARACTERISTICS					
Safety Approvals	UL/cUL 60905-1[7] & IEC/EN60950-1 TUV IEC/EN60335-1 CE				
EMI (Conducted & Radiated Emission)	EN 55032				Class B
EMS (Noise Immunity)	EN 55024				

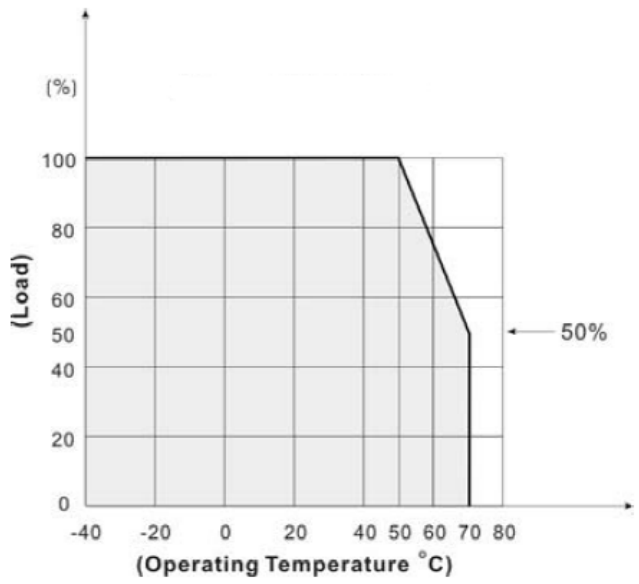
NOTES

1. N Connect +Vin; L Connect –Vin
2. Ripple & Noise are measured at 20MHz of bandwidth with 0.1uF & 47uF parallel capacitor.
3. It's necessary Varistor 14S471K at L/N input side in parallel.
4. It's necessary Fuse 250V/2A at L input side in series connection.
5. It's recommended 10R/8φ thermistor at L input side in series connection.
6. A fuse 250V/2A is directly connected to the input and this fuse is 3.2mm min. away from each polarity.
7. This product is Listed to applicable standards and requirements by UL.

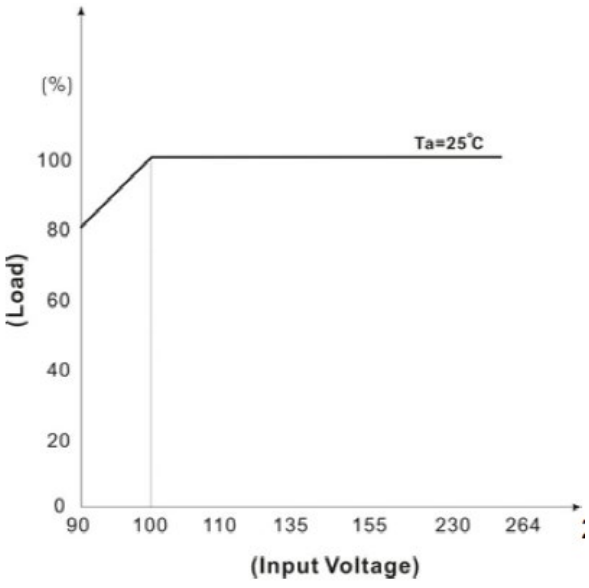
**Due to advances in technology, specifications subject to change without notice.*

DERATING CURVES

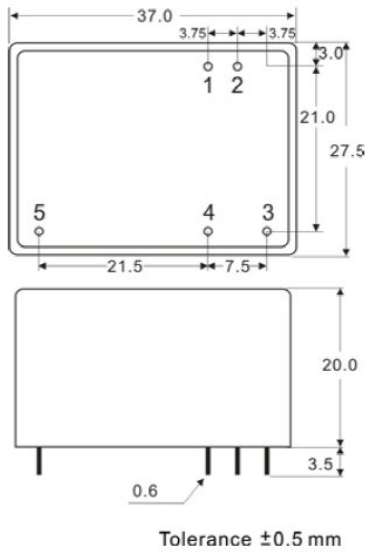
Power Derating Curve



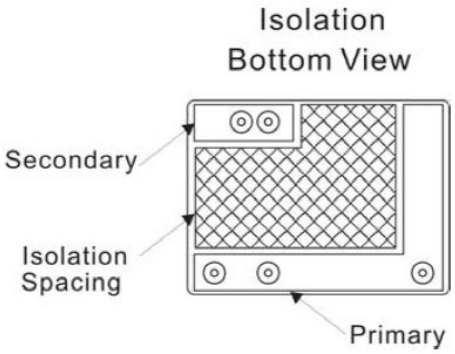
Input vs. Load



MECHANICAL DRAWINGS



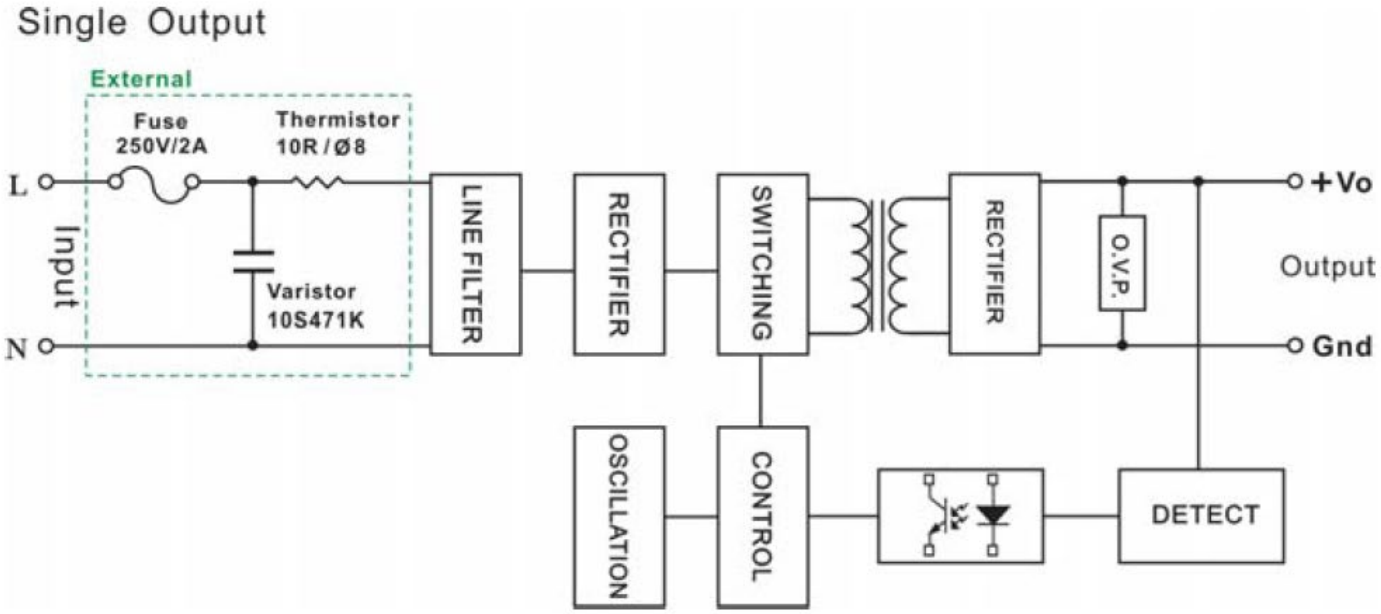
Tolerance ±0.5 mm



PIN CONNECTION

PIN#	Single
1	+Vo
2	GND
3	AC IN (L)
4	AC IN (N)
5	NC CONNECT

BLOCK DIAGRAM



COMPANY INFORMATION

Wall Industries, Inc. has created custom and modified units for over 50 years. Our in-house research and development engineers will provide a solution that exceeds your performance requirements on-time and on budget. Our ISO9001: 2015 certification is just one example of our commitment to producing a high quality, well-documented product for our customers.

Our past projects demonstrate our commitment to you, our customer. Wall Industries, Inc. has a reputation for working closely with its customers to ensure each solution meets or exceeds form, fit and function requirements. We will continue to provide ongoing support for your project above and beyond the design and production phases. Give us a call today to discuss your future projects.

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