



Size: 1.46in x 1.08in x 0.69in (37mm x 27.5mm x 17.5mm)

FEATURES

- Universal Input Range of 90-305VAC
- I/O Isolation 4000VAC
- EMC Compliant without External Components
- Compact Size
- Short Circuit, Over Voltage, and Over Power Protection
- Meets IEC/EN 60335-1, UL/IEC/EN 62368-1, IEC/EN 60950, and IEC/EN 61558-2-16 Safety Approvals

DESCRIPTION

The PSEOCH05 series of AC/DC ITE power modules offers up to 5.04 watts of output power in a very compact 1.46" x 1.08" x 0.69" package. This series consists of single output models, each with a universal input range of 90~305VAC and I/O isolation of 4000VAC. Additionally, this series offers protection against short circuit, over voltage, and over power conditions and it meets IEC/EN 60335-1, UL/IEC/EN 62368-1, IEC/EN 60950, and IEC/EN 61558-2-16 safety approvals. The PSEOCH05 series is also EMC compliant without any additional external components.

MODEL SELECTION TABLE

Model Number	Input Voltage Range	Output Voltage	Output Current	Max. Ripple & Noise	Maximum Capacitive Load	Efficiency	Output Power
PSEOCH05-33S	90~305VAC (120~430VDC)	3.3V	1515mA	<100mVp-p	3500µF	73%	5W
PSEOCH05-05S		5V	1000mA	<100mVp-p	2500µF	77%	
PSEOCH05-12S	90~264VAC (120~370VDC)	12V	420mA	<150mVp-p	470µF	81%	5.04W
PSEOCH05-24S		24V	210mA	<200mVp-p	150µF	83%	

SPECIFICATIONS

All specifications are based on Nominal Input Voltage, Full Load, and +25°C after Warm-Up Time 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	ITE		90		305	VAC
	Household		120		430	VDC
Frequency			90		264	VAC
			120		370	VDC
Input Current	Full Load	115VAC			150	mA
		230VAC			90	
Inrush Current	<500us	115VAC			30	A
		230VAC			60	
Leakage Current					0.25	mA
OUTPUT SPECIFICATIONS						
Output Voltage				See Table		
Voltage Accuracy				±2		%
Line Regulation	LL-HL	3.3V & 5V Models		±0.2		%
		12V & 24V Models		±0.1		%
Load Regulation	0-100%	3.3V Model		±1		%
		5V, 12V, & 24V Models		±0.5		
Output Power				See Table		
Output Current				See Table		
Maximum Capacitive Load				See Table		
Ripple & Noise				See Table		
Hold-Up Time	@230VAC		15			ms
Temperature Coefficient				±0.02		%/°C
PROTECTION						
Short Circuit Protection	Hiccup Mode, Indefinite			Automatic Recovery		
Over Power Protection	Hiccup Technique, Automatic Recovery			≥115		% Io
Over Voltage Protection				Zener Diode Clamp		
ENVIRONMENTAL SPECIFICATIONS						
Operating Temperature	With Derating		-40		+70	°C
Storage Temperature			-40		+85	°C
Humidity					95	%RH
Shock				IEC60068-2-27		
Vibration	10~500Hz, 2G 10min./1 cycle, 60min. each along X, Y, Z axes			IEC60068-2-6		
MTBF	@25°C, MIL-HDBK-217F		450,000			Hours

SPECIFICATIONS

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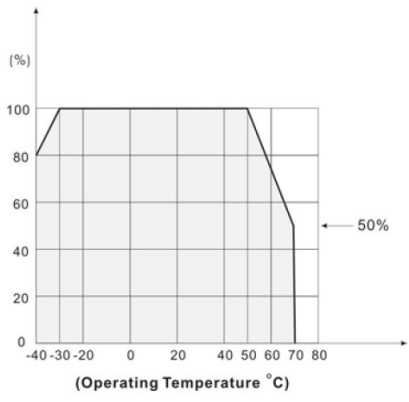
SPECIFICATION	TEST CONDITIONS	Min	Typ	Max	Unit
GENERAL SPECIFICATIONS					
Efficiency	@115VAC	See Table			
Isolation	Input-Output		4000		VAC
Switching Frequency		60		150	KHz
PHYSICAL SPECIFICATIONS					
Weight		0.85oz (24g)			
Dimensions (L x W x H)	Tolerance ±0.02in (±0.5mm)	1.46in x 1.08in x 0.69in (37mm x 27.5mm x 17.5mm)			
Case Material		Plastic Resin (Flammability to UL 94V-0)			
Cooling		Free Air Convection			
SAFETY CHARACTERISTICS					
Safety Approvals		UL/IEC/EN 62368-1 ⁽²⁾ IEC/EN 60950 IEC/EN 60335-1 IEC/EN 61558-2-16			
EMC	EMI (Conducted and Radiated Emission)	EN 55032			Class B
	EMS (Noise Immunity)	EN 55035			

NOTES

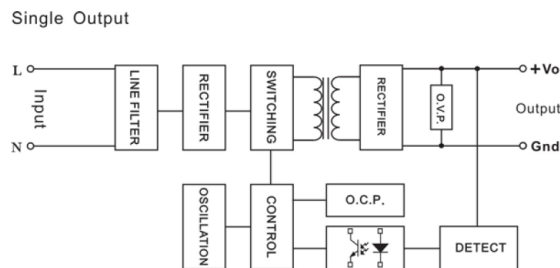
- Ripple & Noise are measured at 20MHz of bandwidth with 0.1uF & 47uF parallel capacitor.
- This product is Listed to applicable standards and requirements by UL.
-  **SMPS** incorporating a short-circuit-proof safety isolating transformer (non-inherently).
-  **SMPS** (Switching mode power supply unit)

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

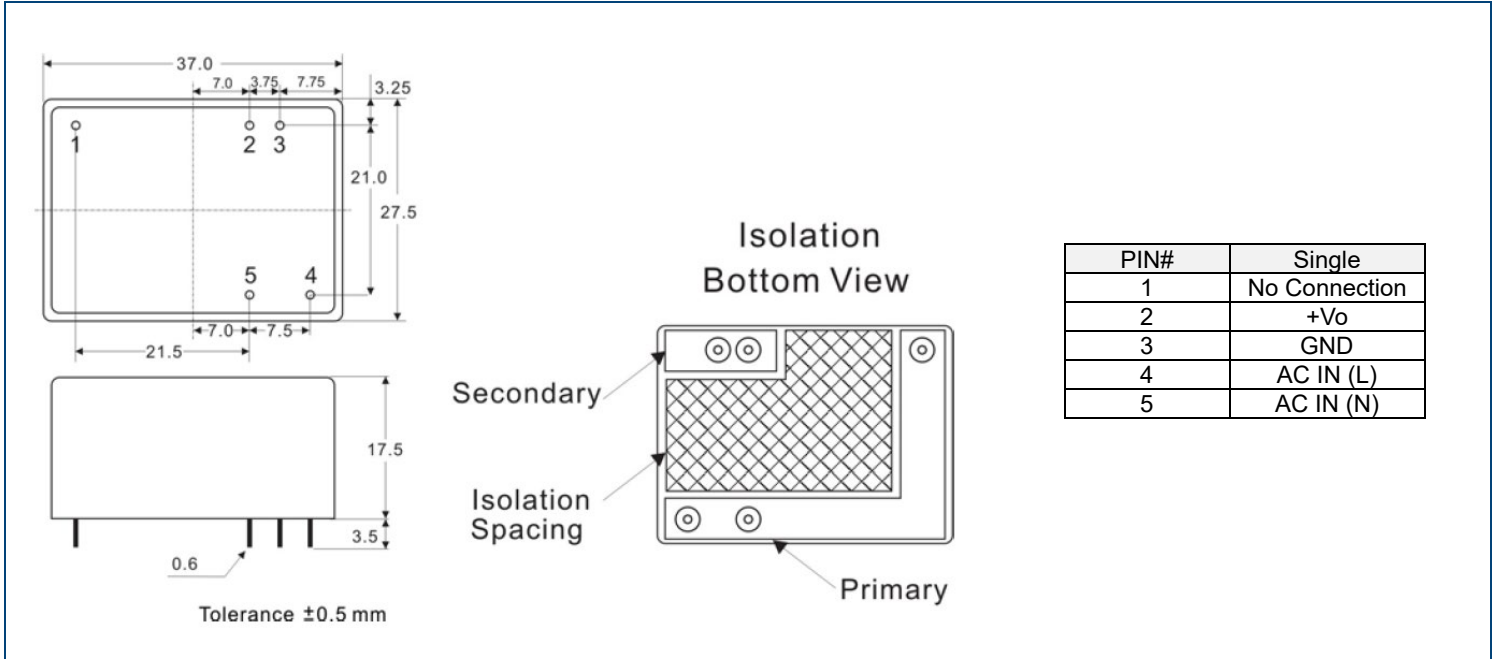
POWER DERATING CURVE



BLOCK DIAGRAM



MECHANICAL DRAWINGS



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.

Contact **Wall Industries** for further information:

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