

Size: 1in x 1in x 0.63in (25.4mm x 25.4mm x 16.1mm)

FEATURES

- Universal Input Voltage Range of 90~264VAC
- High Efficiency
- Fully Encapsulated Plastic Case
- Compact Package
- Short Circuit, Over Load, and Over Voltage Protection
- RoHS Compliant
- Design refers to UL/IEC/EN 60950-1, and UL/IEC/EN 62368-1

DESCRIPTION

The PSSAC5 series of AC/DC converters offers 5 watts of output power in very compact 1" x 1" x 0.63" package. This series consists of single output models with a universal input voltage range of 90~264VAC. Each model in this series features a fully encapsulated plastic case, high efficiency, as well as short circuit, over load, and over voltage protection. This series is RoHS compliant and the design refers to UL/IEC/EN 60950-1, and UL/IEC/EN 62368-1 safety standards.

MODEL SELECTION TABLE

Model Number	Input Voltage Range	Output Voltage	Output Current		Ripple & Noise	Maximum Capacitive Load	Efficiency	Output Power
			Min Load	Max Load				
PSSAC5-S033	90~264VAC	3.3VDC	0%	1515mA	60mV	2200μF	73%	5 Watts
PSSAC5-S05		5VDC	0%	1000mA	60mV	1000μF	80%	
PSSAC5-S09		9VDC	0%	555mA	90mV	300μF	81%	
PSSAC5-S12		12VDC	0%	416mA	120mV	1200μF	81%	
PSSAC5-S15		15VDC	0%	333mA	150mV	100μF	82%	
PSSAC5-S24		24VDC	0%	208mA	240mV	43μF	82%	
PSSAC5-S48		48VDC	0%	104mA	480mV	10μF	84%	

SPECIFICATIONS

All specifications are based on 25°C, Nominal Input Voltage, and Rated 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								
Rated Input Voltage	Vo, Io nom					100~240		VAC
Voltage Range	Vo, Io nom	AC In		90		264		VAC
		DC In		120		370		VDC
Line Frequency	Vi nom, Io nom				47	50	63	Hz
Inrush Current	Io nom	Vi: 115VAC				5	A	
		Vi: 230VAC				10		
		PSSAC5-S12A	115VAC			10		
			230VAC			20		
Input Current	PSSAC5-S12A, Vo, Io nom						0.15	A
Input Fuse	VDE/UL/CCC				FUSE 2.5A/250V (Slow Blow)			
OUTPUT SPECIFICATIONS								
Output Voltage					See Table			
Voltage Accuracy	3.3VDC & 5VDC Models						±3	%
	Other Models						±2	
Line Regulation	Io nom, Vi min...Vi max						±1.0	%
Load Regulation							±1.0	%
Output Power					See Table			
Output Current					See Table			
Minimum Load					0			%
Maximum Capacitive Load					See Table			
Ripple & Noise ⁽¹⁾					See Table			
Transient Recovery Time	Vi nom, Io nom = $\leftarrow\rightarrow$ 0.5 Io nom					1000		uS
PROTECTION								
Short Circuit Protection	Recovers automatically after fault condition is removed							
Over Load Protection	Recovers automatically after fault condition is removed				Above 110% Rated Output Power			
Over Voltage Protection	Zener diode clamp ⁽²⁾				120%-150% Rated Output Voltage			

SPECIFICATIONS

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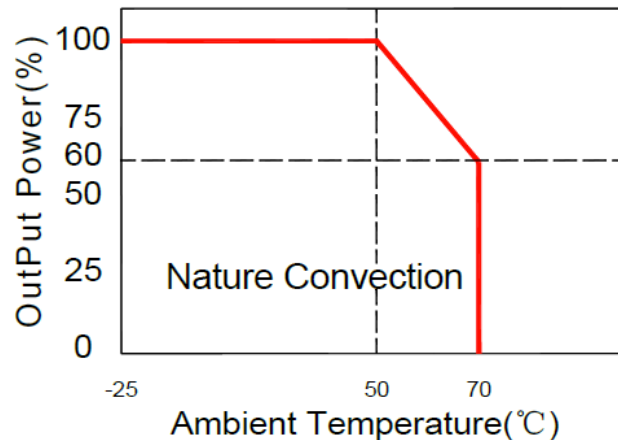
SPECIFICATION	TEST CONDITIONS	Min	Typ	Max	Unit
ENVIRONMENTAL SPECIFICATIONS					
Operating Temperature	See Derating Graph	-25		+70	°C
Storage Temperature	Non Operational	-40		+85	°C
Relative Humidity	Vi nom, Io nom			95	%RH
Cooling		Free Air Convection			
MTBF	MILI-HDBK-217F at 25°C	2600			kHours
GENERAL SPECIFICATIONS					
Efficiency		See Table			
Switching Frequency	Vi nom, Io nom		65		KHz
Isolation Voltage	Input/Output	3KVac/5mA/5Secs			
Isolation Resistance	Input/Output @500VDC	100			MΩ
PHYSICAL SPECIFICATIONS					
Dimensions (L x W x H)		1in x 1in x 0.63in (25.4mm x 25.4mm x 16.1mm)			
Weight		0.71oz (20g)			
Packaging	Outer Carton Unit	490pcs/box			
	Weight	11.7kg/carton			
SAFETY CHARACTERISTICS					
Safety Standards	PSSAC5-S12A	UL62368-1, IEC623658-			
	Other models	Design refers to UL/IEC/EN 60950-1, UL/IEC/EN 62368-1			
EMI Conduction & Radiation	PSSAC5-S12A	Compliance to EN55032			
	Other models	Design refers to EN55022			
EMS Immunity		Design refers to EN61000			

NOTES

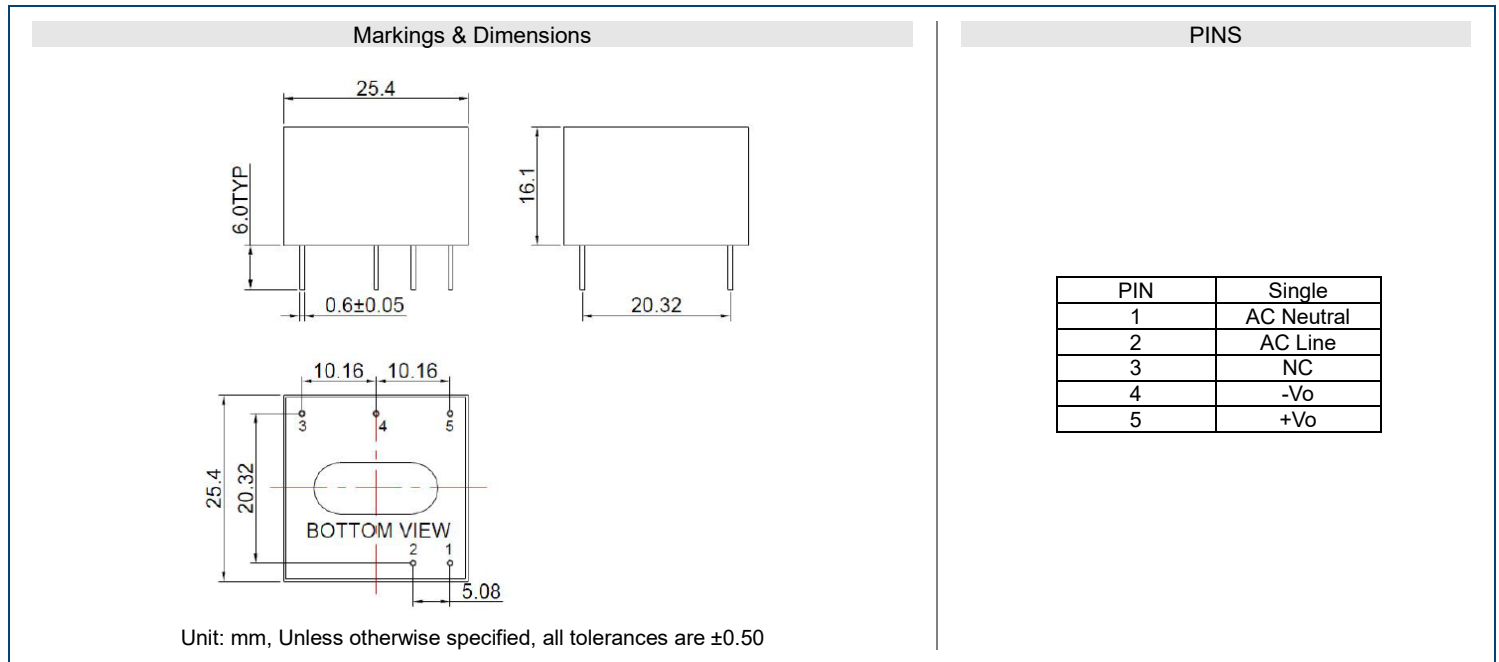
- Ripple & Noise is measured by using 20MHz bandwidth, measured with a 10uF paralleled with a high-frequency 0.47uf capacitor across each output by full load.

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

DERATING CURVES

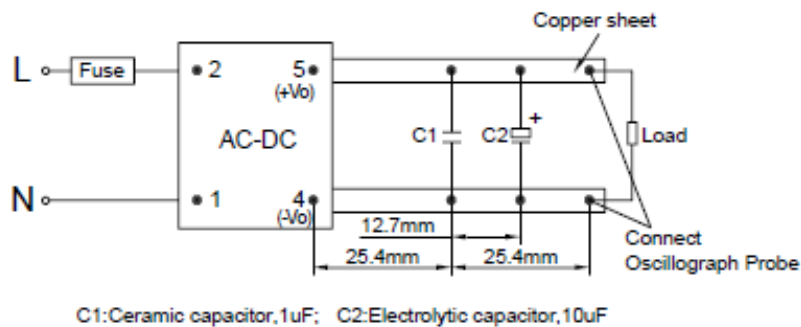


MECHANICAL DRAWINGS

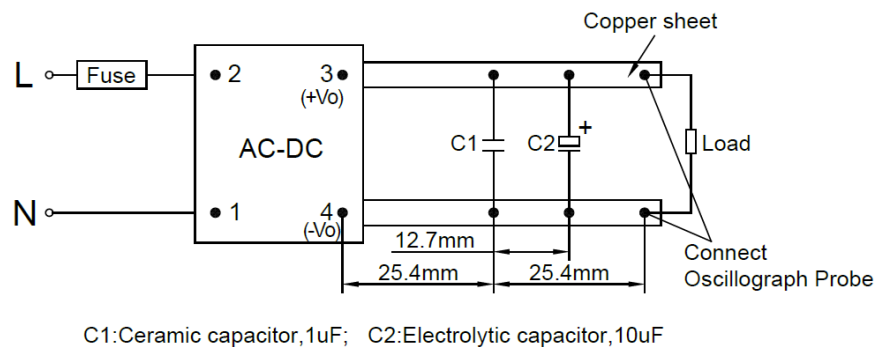


PARALLEL LINES MEASURE

PSSAC5-S12A Model



RIPPLE & NOISE TEST



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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