Size: 1in x 1in x 0.64in (25.4mm x 25.4mm x 16.3mm)

FEATURES

- Universal Input of 85~264VAC
- No Minimum Load Requirement
- Fully Encapsulated Plastic Case for PCB Mounting
- RoHS & REACH Compliant
- Protection Class II per IEC/EN 60536
- Over Load/Voltage, and Short Circuit Protection
- UL/cUL/IEC/EN 60950-1 and TUV/IEC/EN 60335-1 Safety Approvals & CE Marking

DESCRIPTION

The PSFAA-03 series of AC/DC power modules offers up to 3 watts of output power in a fully encapsulated 1" x 1" x 0.64" plastic case. This series consists of single output models with a universal input of 85~264VAC and no minimum load requirement. Each model in this series has over voltage, over load, and short circuit protection, is RoHS & REACH compliant, and has UL/cUL, IEC/EN 60950-1, and TUV/IEC/EN 60335-1 safety approvals. Please contact factory for order details.

MODEL SELECTION TABLE

Model Number	Input Voltage Range	Output Voltage	Output Current		Max. Input Current	Maximum Capacitive Load	Efficiency	Output Power	Ripple & Noise
			Max.	Peak.(1)					
PSFAA-03S033	85~264VAC (120~370VDC)	3.3VDC	900mA	1170mA	62mA	1200µF	70%	3W	70mVp-p
PSFAA-03S05		5VDC	600mA	780mA	61mA	820µF	72%		
PSFAA-03S09		9VDC	333mA	430mA	57mA	470µF	77%		
PSFAA-03S12		12VDC	250mA	320mA	56mA	330µF	78%		
PSFAA-03S15		15VDC	200mA	260mA	56mA	270µF	78%		
PSFAA-03S24		24VDC	125mA	160mA	56mA	180µF	78%		

SPECIFICATIONS

All specifications are based on 25°C, Resistive Load, 115VAC, 60Hz Input Voltage and after warm-up time 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					
Input Voltage Range		85		264	VAC
		120		370	VDC
Input Frequency		47		63	Hz
Inrush Current	@115VAC, Cold Star at 25ºC			15	A
	@230VAC			25	
No Load Power Consumption				150	mW
OUTPUT SPECIFICATIONS					
Output Voltage		See Table			
Voltage Accuracy				±2.0	%Vnom
Line Regulation	Vin= Min. to Max. @Full Load			±1.0	%
Load Regulation	Io=0% to 100%			±1.0	%
Output Power		See Table			
Output Current		See Table			
Minimum Load		No Minimum Load Requirement			
Maximum Capacitive Load		See Table			
Ripple & Noise	0-20Mhz Bandwidth			70	mVp-p
Overshoot				5	%Vout
Current Limitation(2)	Foldback, Automatic Recovery	135	150		%Inom.
Temperature Coefficient				±0.05	%/ºC
Hold-Up Time	115VAC, Full Load		8		mS
PROTECTION					
Short Circuit Protection		Hiccup Mode, Automatic Recovery			
Over Voltage Protection	Zener Diode Clamp		125	190	% of Vo
ENVIRONMENTAL SPECIFICATIONS					
Operating Temperature	Natural Convection	-25		+70	ºC
Storage Temperature		-40		+85	ºC
Humidity	Non-Condensing			95	%RH
Power Derating	+60ºC to +70ºC		0.15		W/ºC
Cooling(4)		Natural Convection			
Lead Temperature	1.5mm from case for 10sec			260	ºC
MTBF	MIL-HDBK-217F@25ºC, Ground Benign		1,200,000		Hours

SPECIFICATIONS

All specifications are based on 25°C, Resistive Load, 115VAC, 60Hz Input Voltage and after warm-up time rated output current unless otherwise noted.
We reserve the right to change specifications based on technological advances.

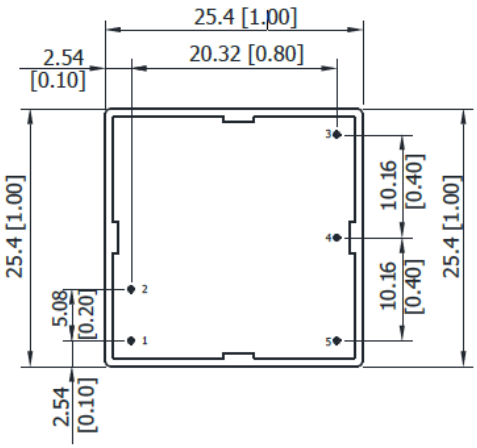
SPECIFICATION	TEST CONDITIONS		Min	Typ	Max	Unit
GENERAL SPECIFICATIONS						
Efficiency	@Max. Load			See Table		
Switching Frequency				65		KHz
I/O Isolation Voltage	60 Seconds		3000			VAC
I/O Isolation Resistance	500VDc		100			MΩ
PHYSICAL SPECIFICATIONS						
Weight				0.61oz (17.4g)		
Dimensions (L x W x H)				1in x 1in x 0.64in (25.4mm x 25.4mm x 16.3mm)		
Case Material				Plastic Resin (Flammability to UL 94V-0 rated)		
Pin Material				Copper Alloy with Gold Plate over Nickel Subplate		
SAFETY CHARACTERISTICS						
Safety Approvals	UL/cUL 60950-1 recognition (UL Certificate) IEC/EN 60950-1 (CB Report) IEC/EN 60335-1 Recognition (CB-Report, TUV certificate)					
EMI	Conduction & Radiation, EN55011, EN55014-1, EN55022, FCC Part 15					Class B
EMS	EN5014-2, EN55024					
	ESD	EN61000-4-2 Air±8kV, Contact ±4kV				A
	Radiated Immunity	EN61000-4-3 10V/m				A
	Fast Transient	EN61000-4-4 ±2kV				A
	Surge	EN61000-4-5 ±1kV				A
	Conducted Immunity	EN61000-4-6 10Vrms				A
	PFMF	EN61000-4-8 30A/m				A
	Dips	EN61000-4-11 30% 10mS				A
	Interruptions	EN61000-4-11 >95% 5000ms				A
Protection Class	According to IEC/EN 60536					Class II

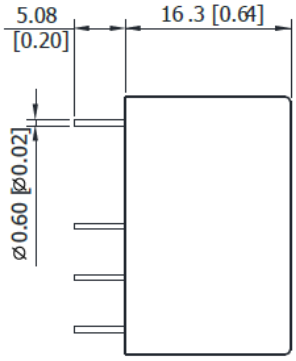
NOTES

1. Peak load lasts <30 seconds with a max duty cycle of 10%. Average output power can't exceed maximum power.
2. Long term overload condition may cause damage
3. It is recommended to protect the converter by a slow blow fuse in the input supply line.
4. "Natural Convection" is about 20LFM, but it is not equal to still air (0 LFM).
5. Other input and output voltages may be available, please contact factory.

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

MECHANICAL DRAWINGS





Pin Connections

Pin	Function
1	AC (N)
2	AC (L)
3	NC
4	-Vout
5	+Vout

NC: No Connection

All dimensions in mm (inches)
Tolerance: ±0.5 (±0.01)
Pin Diameter Ø0.6 ±0.1 (0.02±0.004)

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 ISO9001-2008 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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