

E199779 LEVEL3

Size:
1.33 x 0.87 x 0.67 inches
33.7 x 22.2 x 17.0 mm

FEATURES

- RoHS Compliant
- Isolation Class II
- 2 Watts Output Power
- Low Ripple and Noise
- Single Outputs
- UL/cUL, CE, CB Safety Approvals
- PCB Mountable Switching Power Supply
- Fully Encapsulated Plastic Case
- -40°C to +80°C Operating Temperature Range
- < 0.3W No Load Power Consumption
- Universal Input Range: 90-305VAC (120-430VDC)
- Short Circuit, Over Power, and Over Voltage Protection

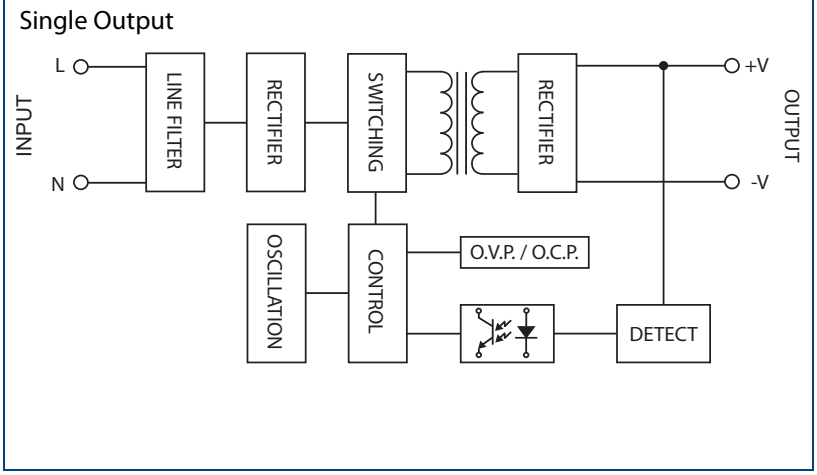
DESCRIPTION

The PSAYC series of AC/DC switching power supplies provides 2 watts of output power in a 1.33" x 0.87" x 0.67" encapsulated PCB mountable package. This series consists of single output models with a universal input range of 90-305VAC (120-430VDC). Some features include low ripple and noise, -40°C to +80°C operating temperature range, and over power, over voltage, and short circuit protection. All models are RoHS compliant and have UL/cUL, CE, and CB safety approvals.

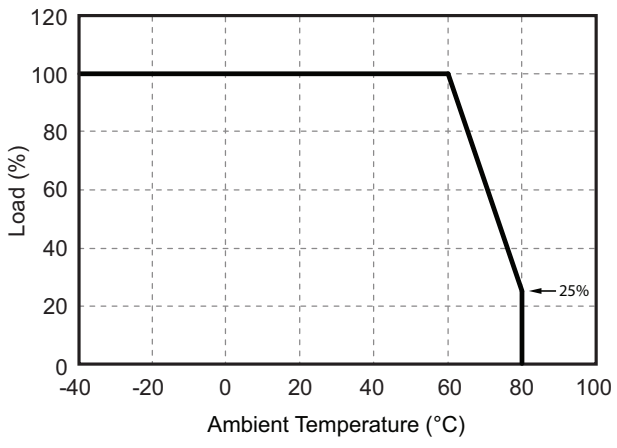
MODEL SELECTION TABLE

Model Number	Input Voltage	Output Voltage	Output Current		Line Regulation	Load Regulation	Output Power	Efficiency	Maximum Capacitive Load
			Min Load	Max Load					
PSAYC-3.3S	90~305 VAC (120~430 VDC)	3.3 VDC	0%	600mA	±1.0%	±1.5%	2W	68%	14,000µF
PSAYC-5S		5 VDC	0%	400mA	±1.0%	±1.5%	2W	71%	8,000µF
PSAYC-9S		9 VDC	0%	222mA	±1.0%	±1.5%	2W	75%	2400µF
PSAYC-12S		12 VDC	0%	167mA	±1.0%	±1.5%	2W	76%	1000µF
PSAYC-15S		15 VDC	0%	133mA	±1.0%	±1.5%	2W	76%	700µF
PSAYC-24S		24 VDC	0%	83mA	±1.0%	±1.5%	2W	77%	220µF

BLOCK DIAGRAM



DERATING CURVE

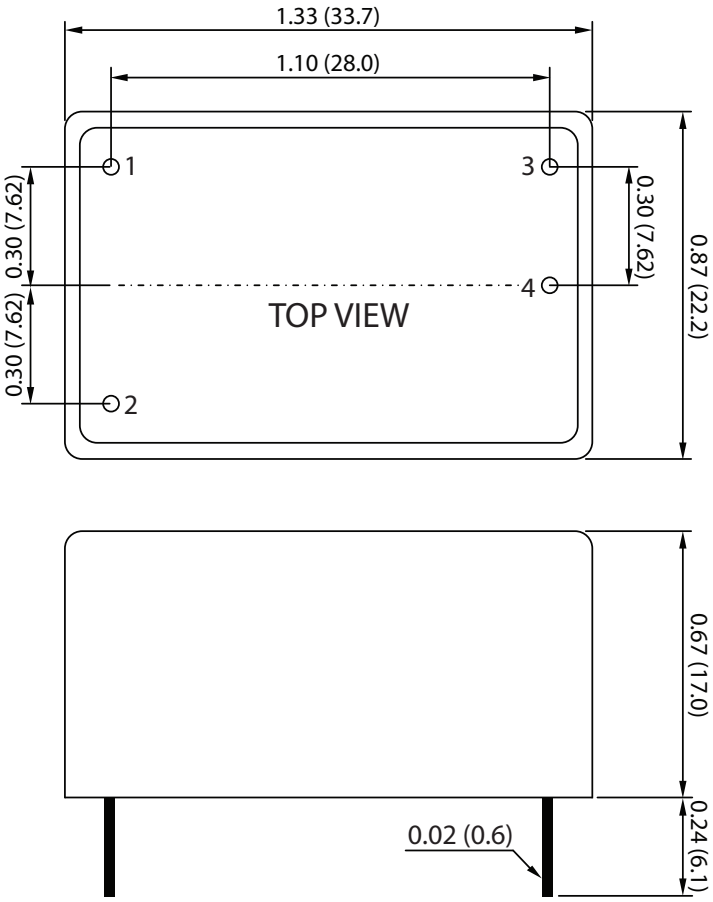


SPECIFICATIONS: PSAYC SERIES

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		AC input voltage range	90		305	VAC
		DC input voltage range	120		430	VDC
Input Frequency			47		63	Hz
Input Current		At 115VAC and full load			75	mA
		At 230VAC and full load			55	
Inrush Current (<500µs)		At 115VAC			15	A
		At 230VAC			25	
No Load Power Consumption					0.3	W
External Fuse (recommended)			3.15A slow blow type			
OUTPUT SPECIFICATIONS						
Output Voltage			See Table			
Voltage Accuracy			-5		+5	%
Line Regulation		Low line to high line	-1		+1	%
Load Regulation		0% to 100% load	-1.5		+1.5	%
Output Power					2	W
Output Current			See Table			
Minimum Load			0			%
Ripple & Noise	120Hz	Measured at 20MHz BW with 0.1µF and 47µF capacitors in parallel		1		Vp-p
	100kHz			0.25		
Max Capacitive Load			See Table			
Hold-Up Time		At 230VAC	15			ms
Temperature Coefficient			-0.02		+0.02	%/°C
PROTECTION						
Short Circuit Protection			Hiccup mode, indefinite (auto-recovery)			
Over Voltage Protection			Zener diode clamp			
Over Power Protection			Hiccup technique, auto-recovery			
GENERAL SPECIFICATIONS						
Efficiency			See Table			
Isolation Voltage		Input to output	3000			VAC
Leakage Current					0.25	mA
ENVIRONMENTAL SPECIFICATIONS						
Operating Temperature		With derating (see derating curve)	-40		+80	°C
Storage Temperature			-40		+85	°C
Humidity					95	% RH
Cooling			Free air convection			
MTBF		25°C (MIL-HDBK-217F)	350,000			hours
PHYSICAL SPECIFICATIONS						
Weight			TBD			
Case Material			Plastic resin with fiberglass (Flammability to UL 94V-0)			
Dimensions (L x W x H)			1.33 x 0.87 x 0.67 inches (33.7 x 22.2 x 17.0 mm)			
SAFETY & EMC						
Safety Approvals (pending)			UL/cUL, CE, CB			
EMC (pending)		EMI (Conducted and Radiated Emissions)	EN 55022 Class B			
		EMS (Noise Immunity)	EN 55024			

MECHANICAL DRAWING



PIN CONNECTIONS	
Pin No	Assignment
1	AC IN (N)
2	AC IN (L)
3	-DC OUT
4	+DC OUT

NOTES
1. Unit: inches (mm)
2. Tolerance: ±0.02 (±0.5)
3. Weight: TBD
4. Case Material: Plastic resin with fiberglass
5. All dimensions are for reference only

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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