



Size:
2.055 x 1.055 x 0.75 inches
52.2 x 26.8 x 19.0 mm

Weight:
1.23oz (35g)

FEATURES

- Isolation Class II
- RoHS Compliant
- 8 Watts Output Power
- Single and Dual Outputs
- Low Ripple & Noise
- Fully Encapsulated Plastic Case
- PCB Mountable Switching Power Supply
- -40°C to +70°C Operating Temperature Range
- Universal Input Voltage Range: 90-305VAC (120-430VDC)
- Short Circuit, Over Power, and Over Voltage Protection
- CE and UL/cUL 60950-1: 2nd Edition Safety Approvals
- Screw Terminal Mechanical Options Available

DESCRIPTION

The PSAHC08 series of AC/DC switching power supplies provides 8 watts of output power in a 2.055" x 1.055" x 0.75" encapsulated PCB mountable package. This series consists of single and dual output models with a universal input range of 90-305VAC (120-430VDC). Some features include low ripple and noise, -40°C to +70°C operating temperature range, and <0.3W no load power consumption. These supplies are also protected against over power, over voltage, and short circuit conditions. The PSAHC08 series also has two types of screw terminal mechanical options available. All models are RoHS compliant and have CE and UL/cUL 60950-1: 2nd edition safety approvals.

MODEL SELECTION TABLE

SINGLE OUTPUT MODELS

Model Number	Input Voltage	Output Voltage	Output Current		Voltage Accuracy	Line Regulation	Load Regulation (10% - 100%)	Output Power	Efficiency	Maximum Capacitive Load
			Min Load	Max Load						
PSAHC08-3.3S	90~305 VAC (120~430 VDC)	3.3 VDC	0%	2000mA	±2%	±0.2%	±1.0%	6.6W	69%	26,000µF
PSAHC08-3.8S		3.8 VDC	0%	2100mA	±2%	±0.2%	±1.0%	8W	71%	25,000µF
PSAHC08-5S		5 VDC	0%	1600mA	±2%	±0.2%	±1.0%	8W	72%	6000µF
PSAHC08-8S		8 VDC	0%	1000mA	±2%	±0.2%	±1.0%	8W	79%	2500µF
PSAHC08-9S		9 VDC	0%	888mA	±2%	±0.2%	±1.0%	8W	79%	2300µF
PSAHC08-12S		12 VDC	0%	666mA	±2%	±0.2%	±0.5%	8W	79%	1050µF
PSAHC08-14S		14 VDC	0%	571mA	±2%	±0.2%	±0.5%	8W	80%	500µF
PSAHC08-15S		15 VDC	0%	533mA	±2%	±0.2%	±0.5%	8W	80%	440µF
PSAHC08-24S		24 VDC	0%	335mA	±2%	±0.2%	±0.5%	8W	81%	180µF

DUAL OUTPUT MODELS

Model Number	Input Voltage	Output Voltage	Output Current		Voltage Accuracy	Line Regulation	Load Regulation (10% - 100%)	Output Power	Efficiency	Maximum Capacitive Load
			Min Load ⁽¹⁾	Max Load						
PSAHC08-5S3.3S	Vo	5 VDC	25%	1600mA	±2%	±0.2%	±0.5%	9W	71%	1200µF
	Vr	3.3 VDC	25%	310mA	±15%	±3.0%	±5.0%			
PSAHC08-8S5S	Vo	8 VDC	25%	1000mA	±2%	±0.2%	±0.5%	8.75W	77%	800µF
	Vr	5 VDC	25%	150mA	±5%	±3.0%	±5.0%			
PSAHC08-12S5S	Vo	12 VDC	25%	666mA	±2%	±0.2%	±0.5%	9W	78%	260µF
	Vr	5 VDC	25%	200mA	±5%	±3.0%	±5.0%			
PSAHC08-12S7.5S	Vo	12 VDC	25%	560mA	±2%	±0.2%	±0.5%	8.6W	78%	260µF
	Vr	7.5 VDC	25%	250mA	±5%	±3.0%	±5.0%			

NOTES

1. Some models require a minimum loading on the output to maintain specified regulations. Operation under no-load conditions will not damage these devices; however, they may not meet all listed specifications.
2. Screw terminal mechanical options available (see page 4). Please call factory for ordering details.
3. This product is Listed to applicable standards and requirements by UL.

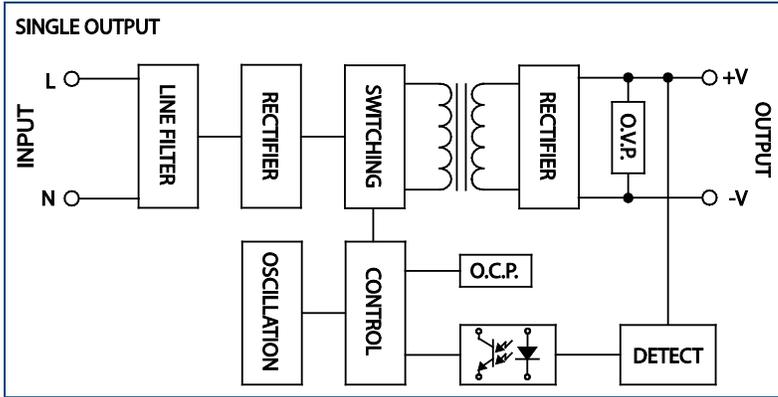
**Due to advances in technology, specifications subject to change without notice.*

SPECIFICATIONS: PSAHC08 SERIES

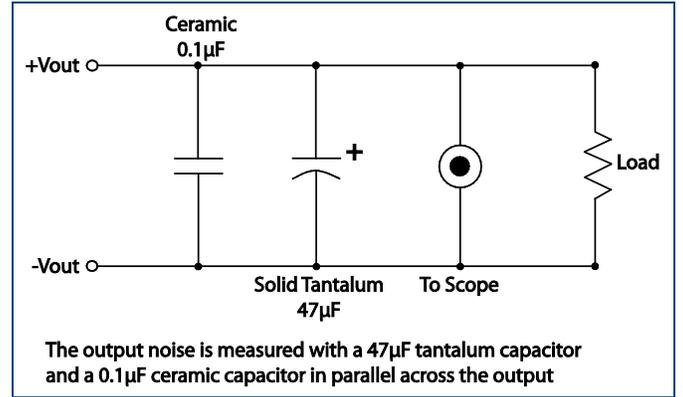
All specifications are based on 25°C, Nominal Input Voltage, and Maximum Output Current unless otherwise noted.
We reserve the right to change specifications based on technological advances.

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		440	Hz
Input Current	At 115VAC and full load				180	mA
	At 230VAC and full load				110	
Inrush Current (<500µs)	At 115VAC				25	A
	At 230VAC				45	
No load Power Consumption					0.3	W
External Fuse (recommended)			2A slow blow type			
OUTPUT SPECIFICATIONS						
Output Voltage			See Table			
Voltage Accuracy			See Table			
Line Regulation	Low line to high line		See Table			
Load Regulation	10% - 100% load		See Table			
Output Power			See Table			
Output Current			See Table			
Minimum Load	Single Outputs		0			%
	Dual Outputs		25			
Ripple	3.3V~15V models				100	mVp-p
	24V models				150	
	Dual Output Models				100	
Noise	3.3V~15V models				150	mVp-p
	24V models				200	
	Dual Output Models				150	
Maximum Capacitive Load			See Table			
Hold-Up Time			10			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			
Switching Frequency			124	132	140	KHz
Isolation Voltage	Input to Output		3000			VAC
Leakage Current					0.25	mA
ENVIRONMENTAL SPECIFICATIONS						
Operating Temperature	See derating curve on page 3		-40		+70	°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			1.23oz (35g)			
Case Material			Plastic resin with fiberglass (Flammability to UL 94V-0)			
Dimensions (L x W x H)			2.055 x 1.055 x 0.75 inches (52.2 x 26.8 x 19.0 mm)			
SAFETY & EMC						
Safety Approvals			UL/cUL 60950-1 ⁽³⁾ 2nd edition; CE			
EMC	EMI (Conducted and Radiated Emissions)		EN 55022 Class B			
	EMS (Noise Immunity)		EN 55024			

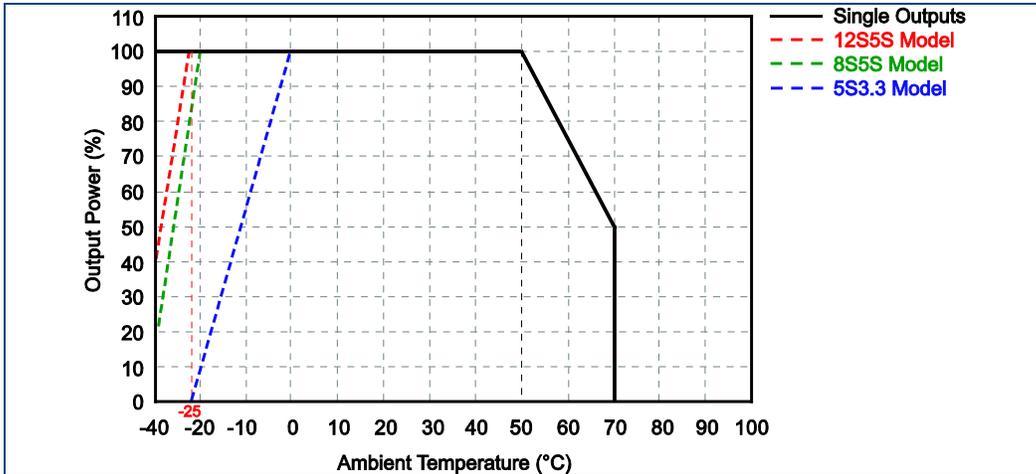
BLOCK DIAGRAM



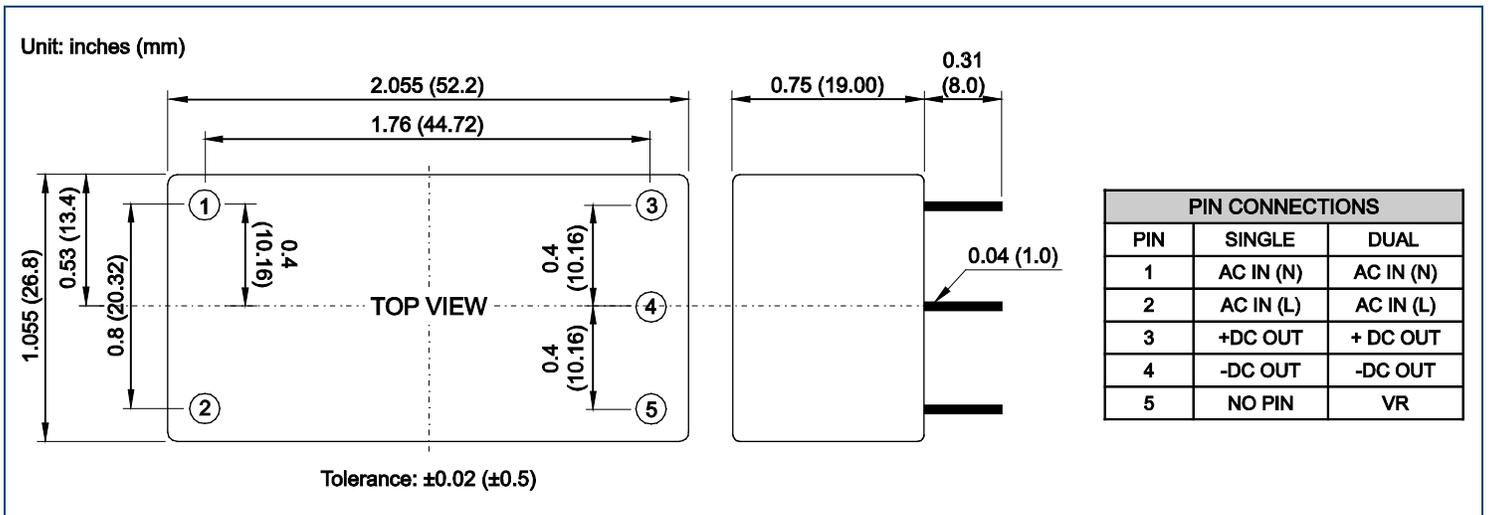
RIPPLE & NOISE SETUP



DERATING CURVE



MECHANICAL DRAWING



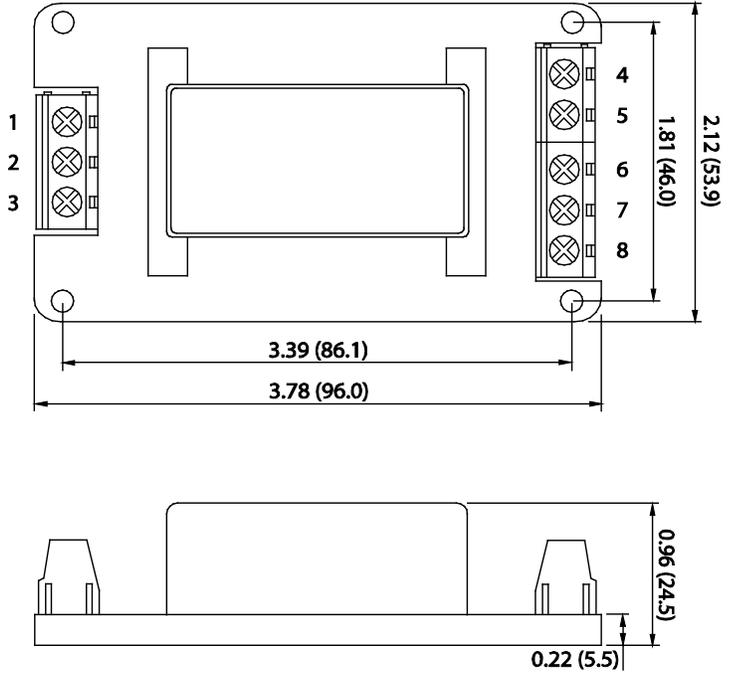
SCREW TERMINAL OPTIONS

PSAHC08-A2



PIN CONNECTIONS		
PIN	SINGLE	DUAL
1	NO CONNECT	NO CONNECT
2	AC IN (N)	AC IN (N)
3	AC IN (L)	AC IN (L)
4	NO CONNECT	NO CONNECT
5	+DC OUT	+DC OUT
6	-DC OUT	-DC OUT
7	NO CONNECT	VR
8	NO CONNECT	NO CONNECT

Unit: inches (mm)

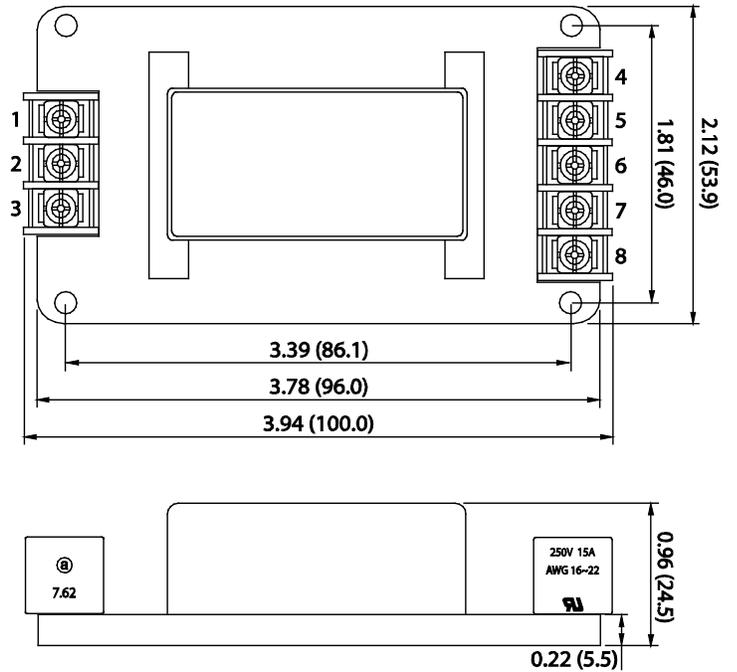


PSAHC08-A5



PIN CONNECTIONS		
PIN	SINGLE	DUAL
1	NO CONNECT	NO CONNECT
2	AC IN (N)	AC IN (N)
3	AC IN (L)	AC IN (L)
4	NO CONNECT	NO CONNECT
5	+DC OUT	+DC OUT
6	-DC OUT	-DC OUT
7	NO CONNECT	VR
8	NO CONNECT	NO CONNECT

Unit: inches (mm)



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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