LEVEL 3

Size:
2.91 x 2.13 x 0.87 inches
74.0 x 54.0 x 22.0 mm

FEATURES

- RoHS Compliant
- 15 Watts Output Power
- Low Ripple and Noise
- Single, Dual, and Triple Outputs
- UL/cUL, and CE Approvals
- Fully Encapsulated Plastic Case
- PCB Mountable Switching Power Supply
- -25°C to +70°C Operating Temperature Range
- Optional -40°C~+71°C Operating Temperature Range
- Universal Input Voltage Range: 90-264VAC (120-370VDC)
- Short Circuit, Over Power, and Over Voltage Protection
- Screw Terminal Mechanical Options Available

DESCRIPTION

The PSANC series of AC/DC switching power supplies provides 15 watts of output power in a 2.91” x 2.13” x 0.87” encapsulated PCB mountable package. This series consists of single, dual, and triple output models with a universal input range of 90-264VAC (120-370VDC). Some features include low ripple and noise, -25°C to +70°C operating temperature range, and over power, over voltage, and short circuit protection. The PSANC series also has two types of screw terminal mechanical options and an extended operating temperature option available. All models are RoHS compliant and have UL/cUL, and CE safety approvals.

MODEL SELECTION TABLE

SINGLE OUTPUT MODELS

Model Number	Input Voltage	Output Voltage	Output Current		Voltage Accuracy	Line Regulation	Load Regulation (5% - 100%)	Output Power	Efficiency	Maximum Capacitive Load
			Min Load[1]	Max Load						
PSANC-5S	90~264 VAC (120~370 VDC)	5 VDC	4%	3000mA	±2%	±0.5%	±0.5%	15W	74%	31,000µF
PSANC-12S		12 VDC	2%	1250mA	±2%	±0.5%	±0.5%	15W	79%	4500µF
PSANC-15S		15 VDC	0%	1000mA	±2%	±0.5%	±0.5%	15W	78%	2700µF
PSANC-24S		24 VDC	0%	625mA	±2%	±0.5%	±0.5%	15W	80%	900µF

DUAL OUTPUT MODELS

Model Number		Input Voltage	Output Voltage	Output Current		Voltage Accuracy	Line Regulation	Load Regulation (5% - 100%)	Output Power	Efficiency	Maximum Capacitive Load
				Min Load	Max Load						
PSANC-5D	Vo_1	90~264 VAC (120~370 VDC)	+5 VDC	0%	1500mA	±5%	±0.5%	±3%	15W	76%	13,500µF
	Vo_2		-5 VDC	0%	1500mA	±5%	±0.5%	±3%			13,500µF
PSANC-12D	Vo_1		+12 VDC	0%	650mA	±5%	±0.5%	±3%	15W	79%	2700µF
	Vo_2		-12 VDC	0%	650mA	±5%	±0.5%	±3%			2700µF
PSANC-15D	Vo_1		+15 VDC	0%	500mA	±5%	±0.5%	±3%	15W	77%	1400µF
	Vo_2		-15 VDC	0%	500mA	±5%	±0.5%	±3%			1400µF

TRIPLE OUTPUT MODELS

Model Number		Input Voltage	Output Voltage	Output Current		Voltage Accuracy	Line Regulation	Load Regulation (5% - 100%)	Output Power	Efficiency	Maximum Capacitive Load
				Min Load[1]	Max Load						
PSANC-5S12D	Vo_1	90~264 VAC (120~370 VDC)	5 VDC	10%	2000mA	±3%	±1%	±2%	15W	79%	14,000µF
	Vo_2		+12 VDC	0%	200mA	±3%	±5%	±5%			900µF
	Vo_3		-12 VDC	0%	200mA	±3%	±5%	±5%			900µF
PSANC-5S15D	Vo_1		5 VDC	10%	2000mA	±3%	±1%	±2%	15W	78%	14,000µF
	Vo_2		+15 VDC	0%	150mA	±3%	±5%	±5%			680µF
	Vo_3		-15 VDC	0%	150mA	±3%	±5%	±5%			680µF

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. For -40°C to +71°C extended operating temperature range please add the suffix –E1 to the model number (Ex: PSANC-12S-E1).
3. Screw terminal mechanical options available (see page 4). Please call factory for ordering details.
4. This product is Listed to applicable standards and requirements by UL.

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

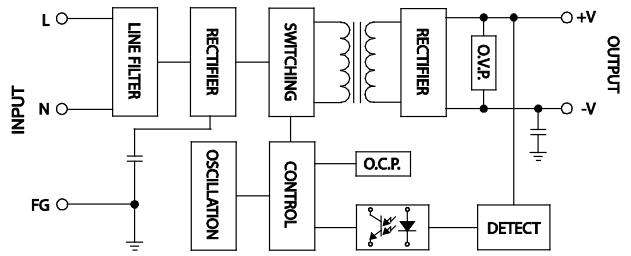
SPECIFICATIONS: PSANC SERIES

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.

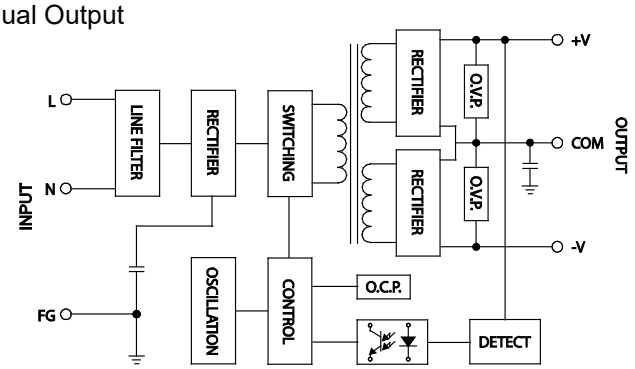
SPECIFICATION		TEST CONDITIONS		Min	Typ	Max	Unit
INPUT SPECIFICATIONS							
Input Voltage		AC input voltage range		90		264	VAC
		DC input voltage range		120		370	VDC
Input Frequency				47		440	Hz
Input Current		At 115VAC and full load				310	mA
		At 230VAC and full load				170	
Inrush Current (<2ms)		Standard Models	At 115VAC			10	A
			At 230VAC			20	
		"-E1" Suffix Models	At 115VAC			23	A
			At 230VAC			46	
External Fuse (recommended)				1.5A slow blow type			
OUTPUT SPECIFICATIONS							
Output Voltage				See Table			
Voltage Accuracy				See Table			
Line Regulation		Low Line to High Line		See Table			
Load Regulation				See Table			
Output Power						15	W
Output Current				See Table			
Minimum Load				See Table			
Ripple & Noise	Ripple	Measured at 20MHz BW with 0.1µF and 47µF capacitors in parallel		< 0.2% Vout +40mV max.			Vp-p
	Noise			< 0.5% Vout +50mV max.			
Max Capacitive Load				See Table			
Hold-Up Time				15			ms
Temperature Coefficient					±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					100		KHz
Isolation Voltage	Input to Output			3000			VAC
	Input to FG			1500			
	Output to FG			500			
Leakage Current						0.75	mA
ENVIRONMENTAL SPECIFICATIONS							
Operating Temperature		Standard Models		-25		+70	°C
		"-E1" Suffix Models		-40		+71	
Storage Temperature				-40		+85	°C
Humidity						95	% RH
Cooling				Free air convection			
MTBF		25°C (MIL-HDBK-217F)		200,000			hours
PHYSICAL SPECIFICATIONS							
Weight				4.02oz (114g)			
		With Baseplate		8.61oz (244g)			
Case Material				Plastic resin with fiberglass (Flammability to UL 94V-0)			
Dimensions (L x W x H)				2.91 x 2.13 x 0.87 inches (74.0 x 54.0 x 22.0 mm)			
SAFETY & EMC							
Safety Approvals				UL/cUL[4], CE			
EMC		EMI (Conducted and Radiated Emissions)		EN 55022 Class B			
		EMS (Noise Immunity)		EN 55024			

BLOCK DIAGRAMS

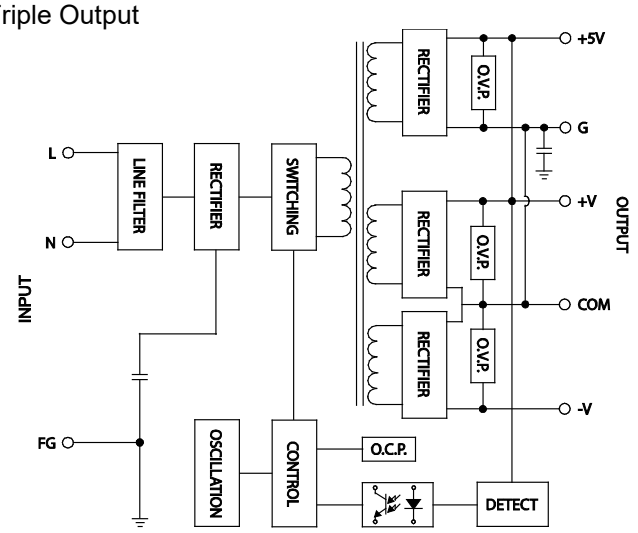
Single Output



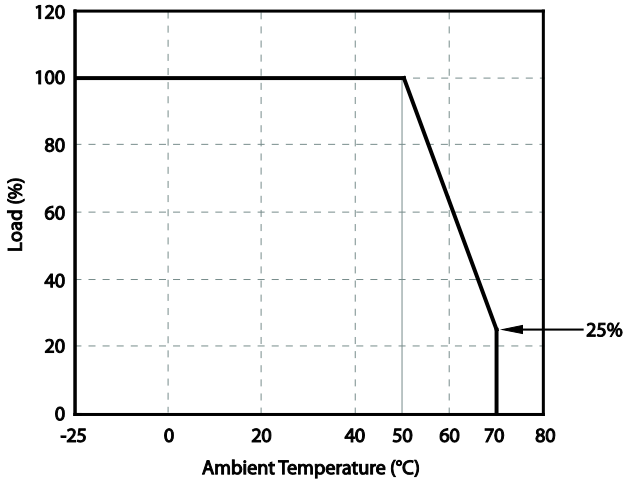
Dual Output



Triple Output

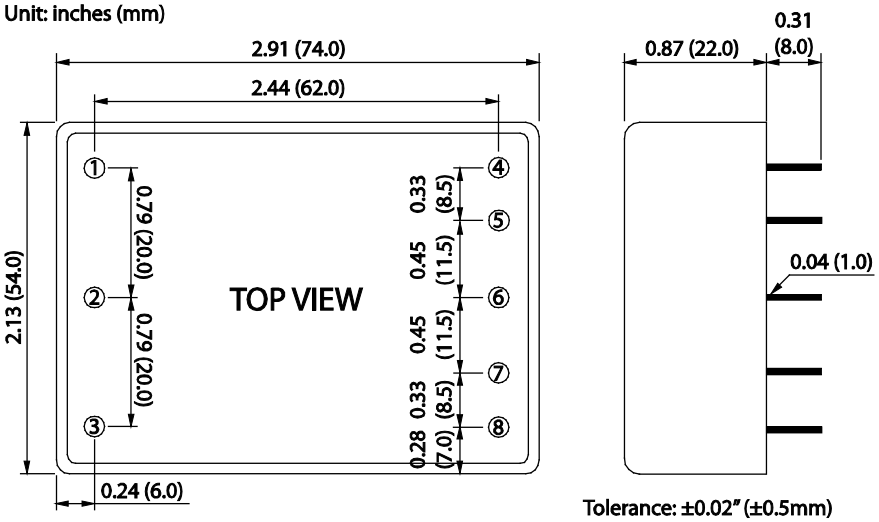


DERATING CURVE



MECHANICAL DRAWING

Unit: inches (mm)



Tolerance: ±0.02″ (±0.5mm)

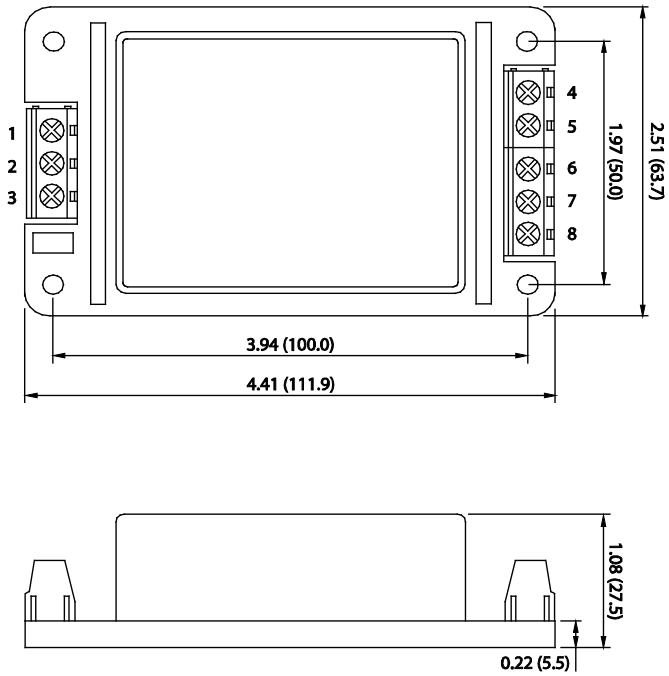
PIN CONNECTIONS			
PIN	SINGLE	DUAL	TRIPLE
1	FG	FG	FG
2	AC IN (N)	AC IN (N)	AC IN (N)
3	AC IN (L)	AC IN (L)	AC IN (L)
4	NO PIN	NO PIN	-DC OUT
5	-DC OUT	-DC OUT	COMMON
6	NO PIN	COMMON	+DC OUT
7	+DC OUT	+DC OUT	+5V RTN
8	NO PIN	NO PIN	+5V OUT

SCREW TERMINAL OPTIONS

PSANC-A2

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

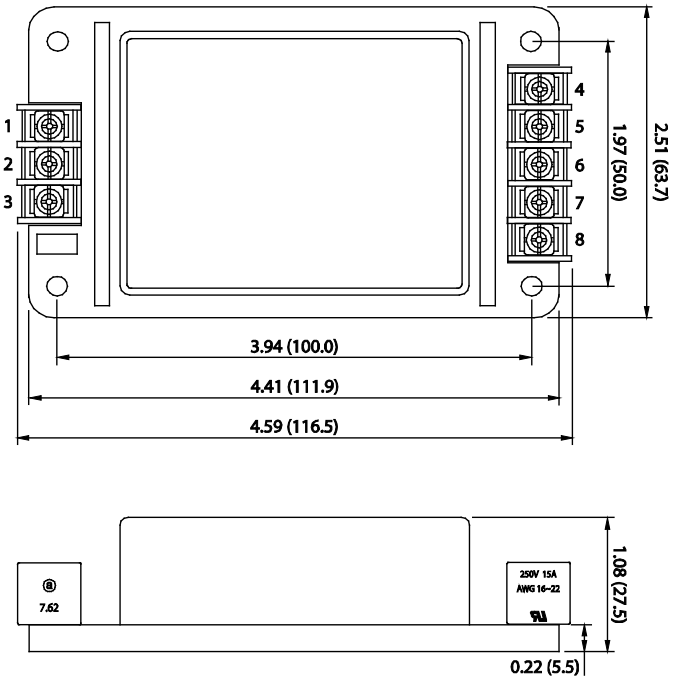
Unit: inches (mm)



PSANC-A5

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

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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