



Size:
3.5 x 2.5 x 0.98 inches
89.0 x 63.5 x 25.0 mm

FEATURES

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

DESCRIPTION

The PSASC series of AC/DC switching power supplies provides 30 watts of output power in a 3.5" x 2.5" x 0.98" 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, -40°C to +70°C operating temperature range, and over power, over voltage, and short circuit protection. The PSASC series also has two types of screw terminal mechanical options available. All models are RoHS compliant and have UL/cUL, CE, and CB safety approvals.

MODEL SELECTION TABLE

SINGLE OUTPUT MODELS

Model Number	Input Voltage	Output Voltage	Output Current		Voltage Accuracy	Line Regulation	Load Regulation (8% - 100%)	Output Power	Efficiency	Maximum Capacitive Load
			Min Load ⁽¹⁾	Max Load						
PSASC-3.3S	90~264 VAC (120~370 VDC)	3.3 VDC	5%	6000mA	±2%	±1%	±1%	20W	75%	80,000µF
PSASC-5S		5 VDC	8%	6000mA	±2%	±1%	±1%	30W	79%	70,000µF
PSASC-12S		12 VDC	2%	2500mA	±2%	±1%	±1%	30W	82%	14,000µF
PSASC-15S		15 VDC	2%	2000mA	±2%	±1%	±1%	30W	82%	11,000µF
PSASC-24S		24 VDC	2%	1250mA	±2%	±1%	±1%	30W	82%	5900µF

DUAL OUTPUT MODELS

Model Number	Input Voltage	Output Voltage	Output Current		Voltage Accuracy	Line Regulation	Load Regulation (20% - 100%)	Output Power	Efficiency	Maximum Capacitive Load
			Min Load ⁽¹⁾	Max Load						
PSASC-5D	90~264 VAC (120~370 VDC)	+5 VDC	2%	±3000mA	±5%	±1%	±3%	30W	79%	50,000µF
		-5 VDC			±5%	±1%	±3%			50,000µF
PSASC-12D		+12 VDC	3%	±1250mA	±5%	±1%	±3%	30W	82%	14,000µF
		-12 VDC			±5%	±1%	±3%			14,000µF
PSASC-15D		+15 VDC	1%	±1000mA	±5%	±1%	±3%	30W	80%	10,000µF
	-15 VDC			±5%	±1%	±3%			10,000µF	
PSASC-5S12S	90~264 VAC (120~370 VDC)	5 VDC	20%	3000mA	±2%	±1%	±2%	30W	79%	13,200µF
		12 VDC			±5%	±5%	±6%			6400µF

TRIPLE OUTPUT MODELS

Model Number	Input Voltage	Output Voltage	Output Current		Voltage Accuracy	Line Regulation	Load Regulation ⁽²⁾ (20% - 100%)	Output Power	Efficiency	Maximum Capacitive Load
			Min Load ⁽¹⁾	Max Load						
PSASC-5S12D	90~264 VAC (120~370 VDC)	5 VDC	20%	3000mA	±2%	±1%	±2%	30W	79%	15,000µF
		+12 VDC			±5%	±5%	±6%			5400µF
		-12 VDC			±5%	±5%	±6%			5400µF
PSASC-5S15D	90~264 VAC (120~370 VDC)	5 VDC	20%	3000mA	±2%	±1%	±2%	30W	78%	10,000µF
		+15 VDC			±5%	±5%	±6%			3200µF
		-15 VDC			±5%	±5%	±6%			3200µF

NOTES

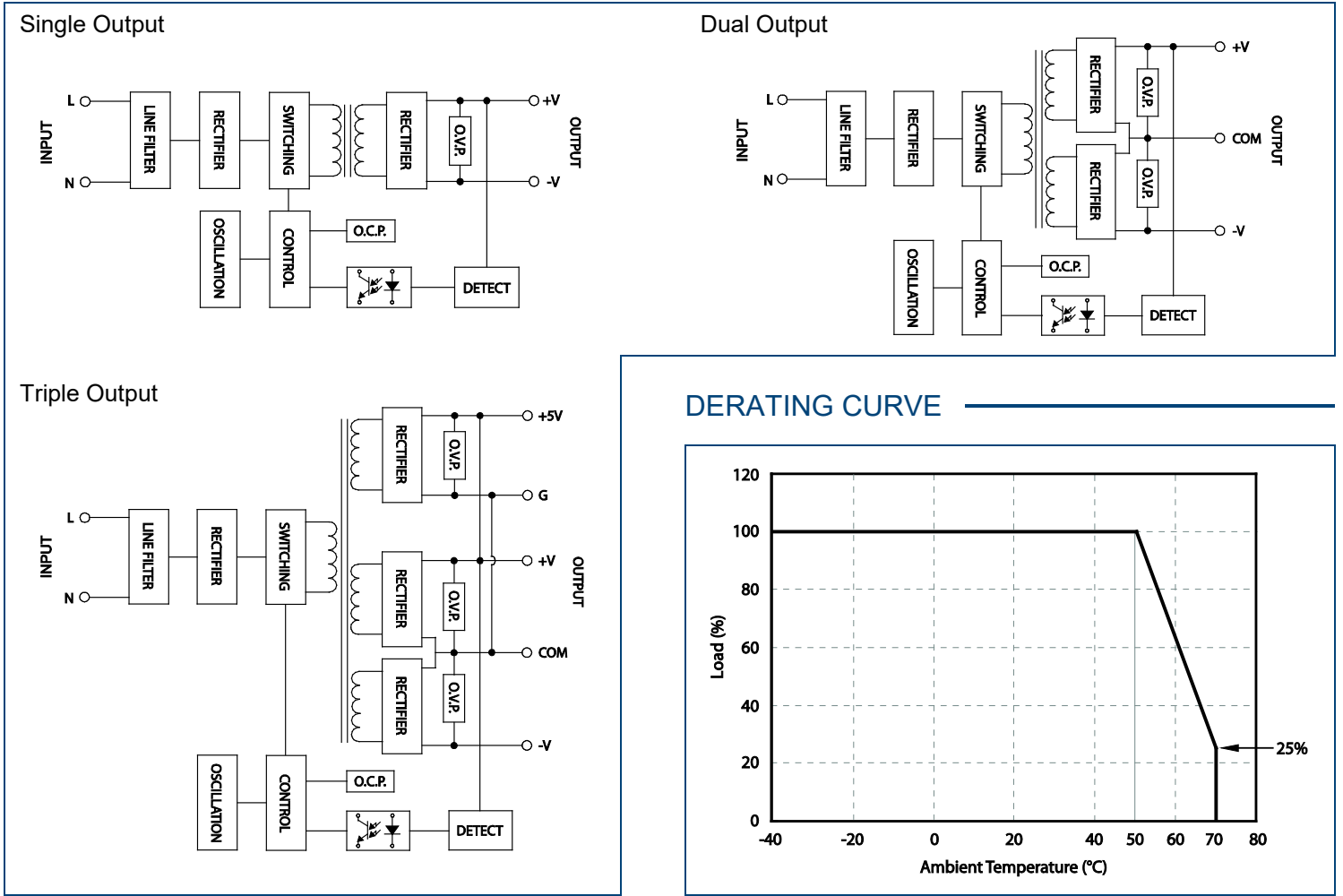
1. All models require a minimum loading on the output to maintain specified regulations. Operation under no-load conditions will not damage these devices; however, they may not meet all listed specifications.
 2. Load regulation for triple output models:
Main output (V1): 20% to 100% with 20% to 100% balanced on auxiliaries.
Auxiliary outputs (V2 & V3): 20% to 100% balanced on all outputs.
 3. Cross regulation for triple output models:
Main output 100% load, auxiliary 100%, other auxiliary 25% to 100%.
Auxiliary outputs (V2 & V3): Main output 100% load, auxiliary 100%, other auxiliary 25% to 100% or main output 25%, auxiliary 25%, other auxiliary 25% to 100%.
 4. Screw terminal mechanical options available (see page 4). Please call factory for ordering details.
 5. This product is Listed to applicable standards and requirements by UL.
- *Due to advances in technology, specifications subject to change without notice.*

SPECIFICATIONS: PSASC SERIES

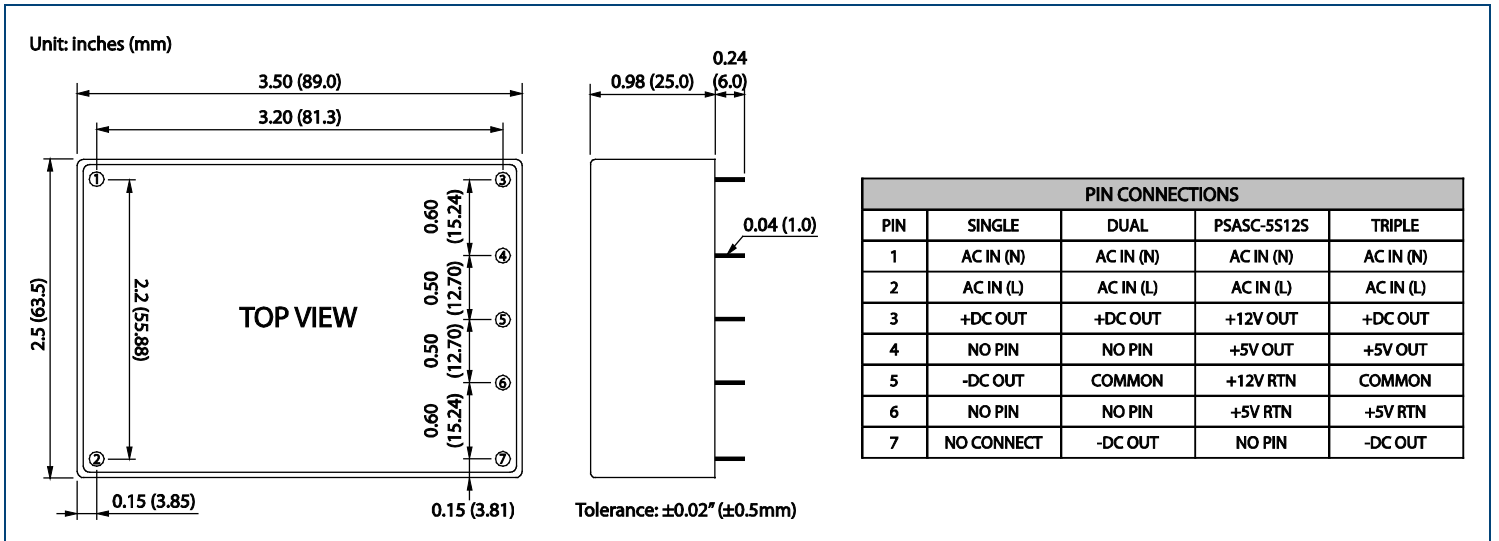
All specifications are based on 25°C, Nominal Input Voltage, and Maximum Output Current unless otherwise noted.
 We reserve the right to change specifications based on technological advances.

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				520	mA
	At 230VAC and full load				320	
Inrush Current (<2ms)	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			
Cross Regulation			See Note 3			
Output Power					30	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 mode, auto-recovery			
GENERAL SPECIFICATIONS						
Efficiency			See Table			
Switching Frequency				100		KHz
Isolation Voltage (Input to Output)			3000			VAC
Leakage Current					0.75	mA
ENVIRONMENTAL SPECIFICATIONS						
Operating Temperature	With derating (see derating curve)		-40		+70	°C
Storage Temperature			-40		+85	°C
Humidity					95	% RH
Cooling			Free air convection			
MTBF	25°C (MIL-HDBK-217F)		200,000			hours
PHYSICAL SPECIFICATIONS						
Weight			7.48oz (212g)			
Case Material			Plastic resin + fiberglass (Flammability to UL 94V-0)			
Dimensions (L x W x H)			3.5 x 2.5 x 0.98 inches (89.0 x 63.5 x 25.0 mm)			
SAFETY & EMC						
Safety Approvals			UL/cUL ⁽⁵⁾ , CE, CB			
EMC	EMI (Conducted and Radiated Emissions)		EN 55022 Class B			
	EMS (Noise Immunity)		EN 55024			

BLOCK DIAGRAMS



MECHANICAL DRAWING



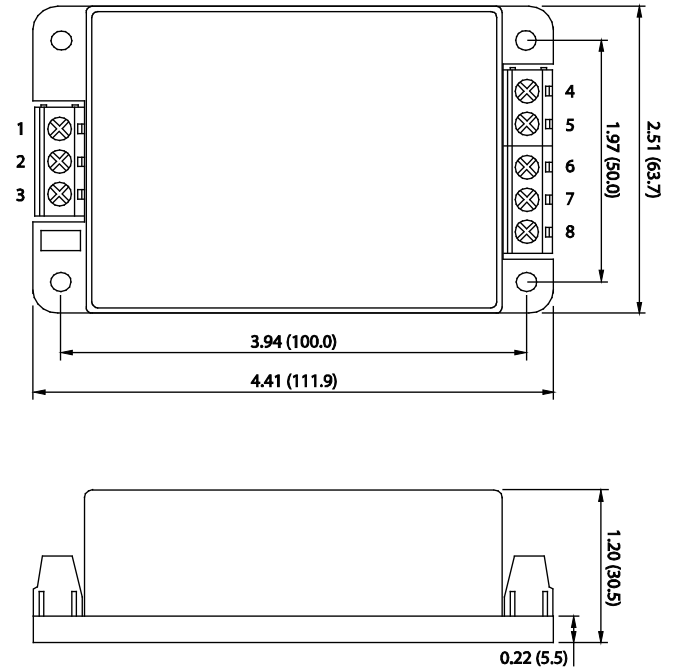
SCREW TERMINAL OPTIONS

PSASC-A2



PIN CONNECTIONS				
PIN	SINGLE	DUAL	PSASC-5S12S	TRIPLE
1	NO CONNECT	NO CONNECT	NO CONNECT	NO CONNECT
2	AC IN (N)	AC IN (N)	AC IN (N)	AC IN (N)
3	AC IN (L)	AC IN (L)	AC IN (L)	AC IN (L)
4	+DC OUT	+DC OUT	+12V OUT	+DC OUT
5	NO CONNECT	NO CONNECT	+5V OUT	+5V OUT
6	-DC OUT	COMMON	+12V RTN	COMMON
7	NO CONNECT	NO CONNECT	+5V RTN	+5V RTN
8	NO CONNECT	-DC OUT	NO CONNECT	-DC OUT

Unit: inches (mm)

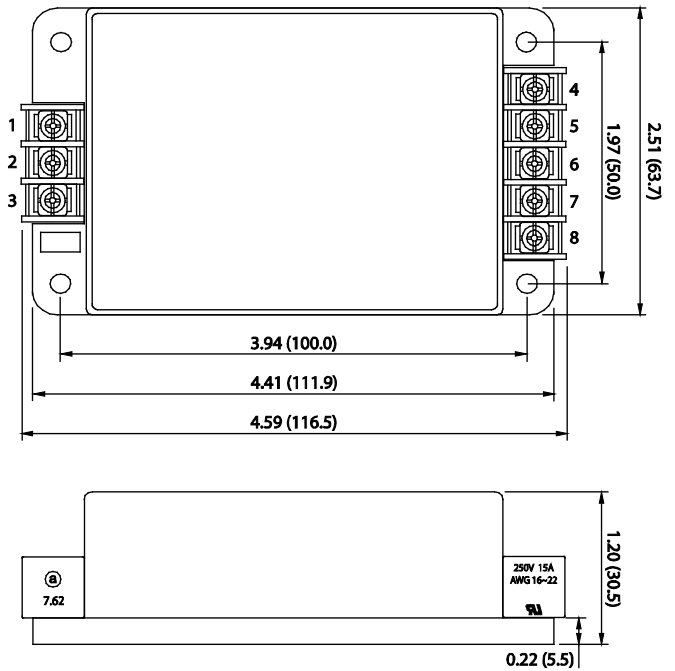


PSASC-A5



PIN CONNECTIONS				
PIN	SINGLE	DUAL	PSASC-5S12S	TRIPLE
1	NO CONNECT	NO CONNECT	NO CONNECT	NO CONNECT
2	AC IN (N)	AC IN (N)	AC IN (N)	AC IN (N)
3	AC IN (L)	AC IN (L)	AC IN (L)	AC IN (L)
4	+DC OUT	+DC OUT	+12V OUT	+DC OUT
5	NO CONNECT	NO CONNECT	+5V OUT	+5V OUT
6	-DC OUT	COMMON	+12V RTN	COMMON
7	NO CONNECT	NO CONNECT	+5V RTN	+5V RTN
8	NO CONNECT	-DC OUT	NO CONNECT	-DC 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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