



Size: 2.52 x 1.77 x 0.85 inches
64.0 x 45.0 x 21.5 mm

Weight: 3.25oz (92g)

FEATURES

- RoHS Compliant
- 10 Watts Output Power
- Low Ripple and Noise
- Single and Dual Outputs
- UL/cUL and CE Approvals
- Fully Encapsulated Plastic Case
- PCB Mountable Switching Power Supplies
- -25°C to +70°C Operating Temperature Range
- Optional -40°C~+70°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 PSATC series of AC/DC switching power supplies provides 10 watts of output power in a 2.52" x 1.77" x 0.85" encapsulated PCB mountable package. This series consists of single and dual 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 PSATC 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		Line Regulation	Load Regulation (5% - 100%)	Output Power	Efficiency	Maximum Capacitive Load
			Min Load ⁽¹⁾	Max Load					
PSATC-3.3S	90~264 VAC (120~370 VDC)	3.3 VDC	4%	3000mA	±0.5%	±1%	10W	65%	70,000µF
PSATC-5S		5 VDC	5%	2000mA	±0.5%	±1%	10W	71%	35,000µF
PSATC-12S		12 VDC	5%	833mA	±0.5%	±1%	10W	76%	11,000µF
PSATC-15S		15 VDC	3%	666mA	±0.5%	±1%	10W	75%	7000µF
PSATC-24S		24 VDC	5%	426mA	±0.5%	±1%	10W	75%	2300µF
DUAL OUTPUT MODELS									
Model Number	Input Voltage	Output Voltage	Output Current		Line Regulation	Load Regulation (5% - 100%)	Output Power	Efficiency	Maximum Capacitive Load
			Min Load ⁽¹⁾	Max Load					
PSATC-5D	90~264 VAC (120~370 VDC)	±5 VDC	1%	±800mA	±0.5%	±1%	8W	73%	±22,000µF
PSATC-12D		±12 VDC	3%	±380mA	±0.5%	±1%	10W	75%	±3000µF
PSATC-15D		±15 VDC	1%	±300mA	±0.5%	±1%	10W	74%	±2000µF

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 +70°C extended operating temperature range please add the suffix -E1 to the model number (Ex: PSATC-12S-E1).
3. Screw terminal mechanical options available (see page 4). Please call factory for ordering details.

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

MODEL NUMBER SET

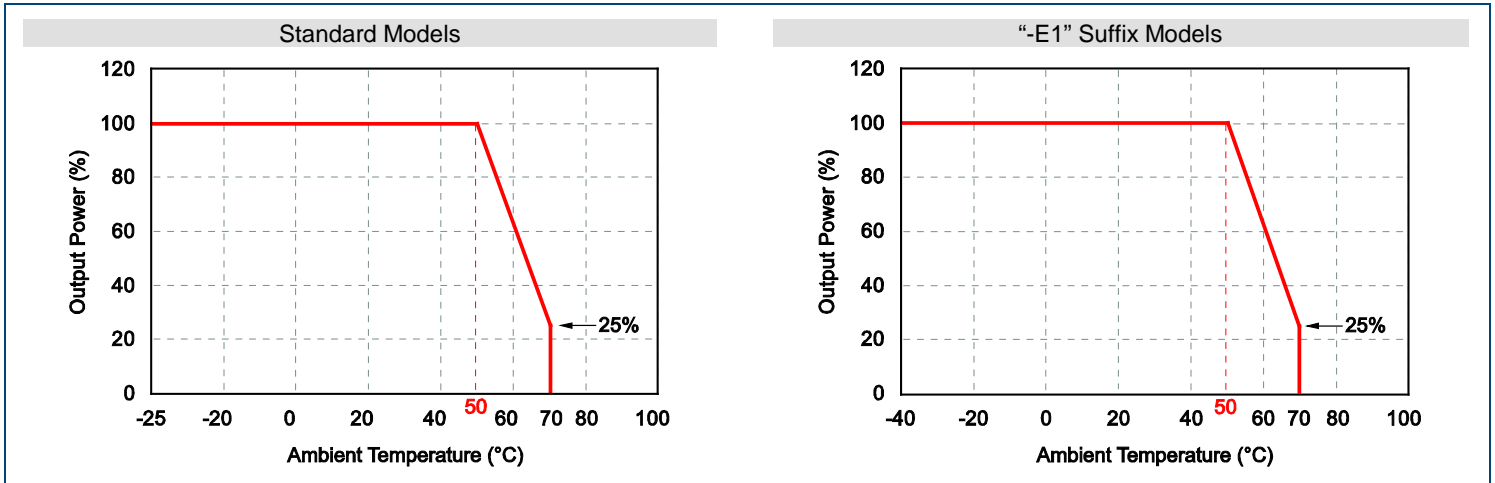
PSATC	-	12	S	-	E1	A2
Series Name		Output Voltage	Output Quantity		Operating Temperature Options	Screw Terminal Options
		3.3: 3.3 VDC 5: 5 VDC 12: 12 VDC 15: 15 VDC 24: 24 VDC	S: Single Output		None: -25°C to +70°C Operating Temp. E1: -40°C to +70°C Operating Temp.	None: Encapsulated PCB Mount A2: See page 4 A5: See page 4
		5: ±5 VDC 12: ±12 VDC 15: ±15 VDC	D: Dual Output			

TECHNICAL SPECIFICATIONS: PSATC SERIES

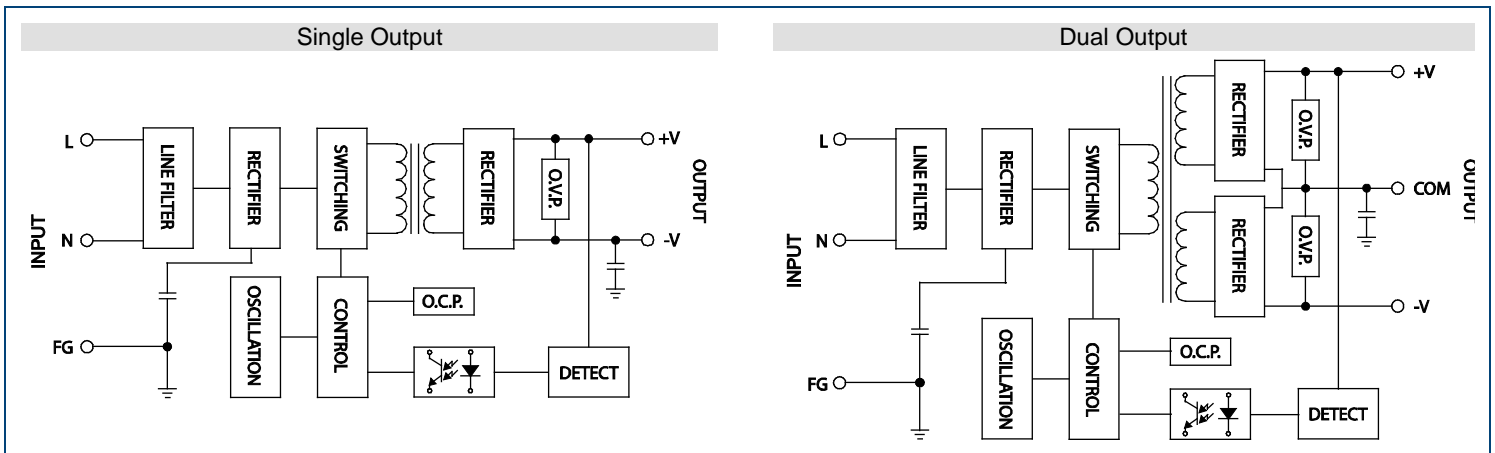
All specifications are based on 25°C, Nominal Input Voltage, and Maximum Output Current unless otherwise noted.
We reserve the right to change specifications based on technological advances.

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				200	mA
	At 230VAC and full load				130	
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			-2		+2	%
Line Regulation	Low Line to High Line		-0.5		+0.5	%
Load Regulation	5% to 100% load		-1		+1	%
Output Power					10	W
Output Current			See Table			
Minimum Load			See Table			
Ripple & Noise	Ripple	Measured at 20MHz BW and with a 47µF tantalum capacitor and a 0.1µF ceramic capacitor in parallel across the output.	< 0.2% Vout +40mV max.			Vp-p
	Noise		< 0.5% Vout +50mV max.			
Maximum 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		+70	
Storage Temperature			-40		+85	°C
Humidity					95	% RH
Cooling			Free air convection			
MTBF	25°C (MIL-HDBK-217F)		250,000			hours
PHYSICAL SPECIFICATIONS						
Weight			3.25oz (92g)			
	With Baseplate		6.17oz (175g)			
Case Material			Plastic resin with fiberglass (Flammability to UL 94V-0)			
Dimensions (L x W x H)			2.52 x 1.77 x 0.85 inches (64.0 x 45.0 x 21.5 mm)			
SAFETY & EMC						
Safety Approvals			UL/cUL, CE			
EMC	EMI (Conducted and Radiated Emissions)		EN 55022 Class B			
	EMS (Noise Immunity)		EN 50082-1			

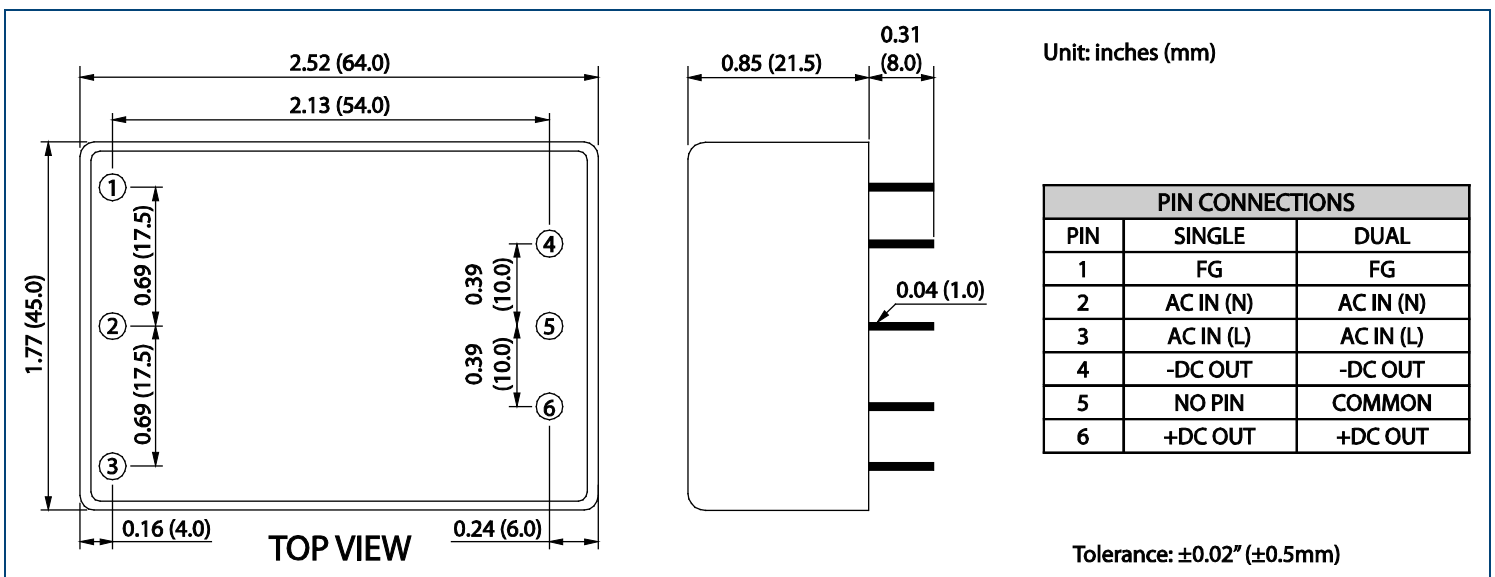
DERATING CURVES



BLOCK DIAGRAMS



MECHANICAL DRAWING



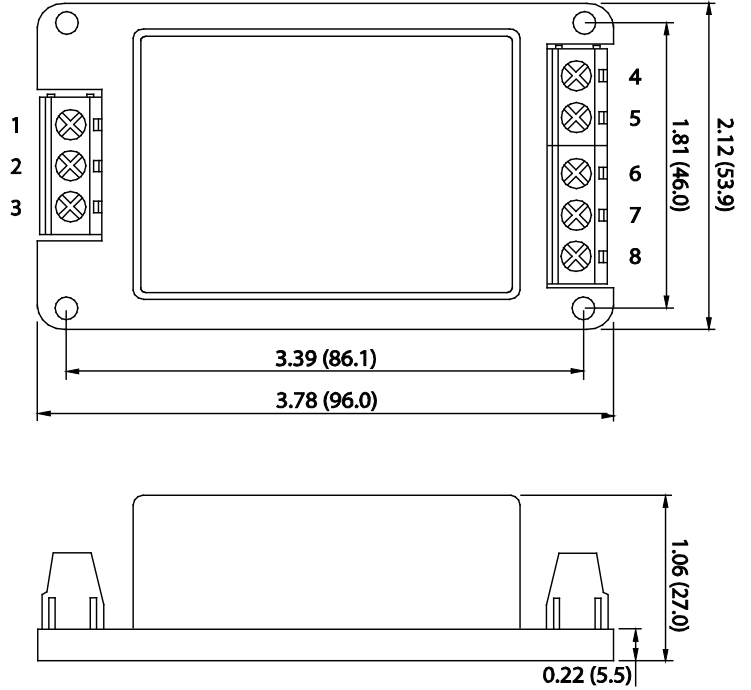
SCREW TERMINAL OPTIONS

PSATC-A2



PIN CONNECTIONS		
PIN	SINGLE	DUAL
1	FG	FG
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	NO CONNECT	COMMON
7	+DC OUT	+DC OUT
8	NO CONNECT	NO CONNECT

Unit: inches (mm)

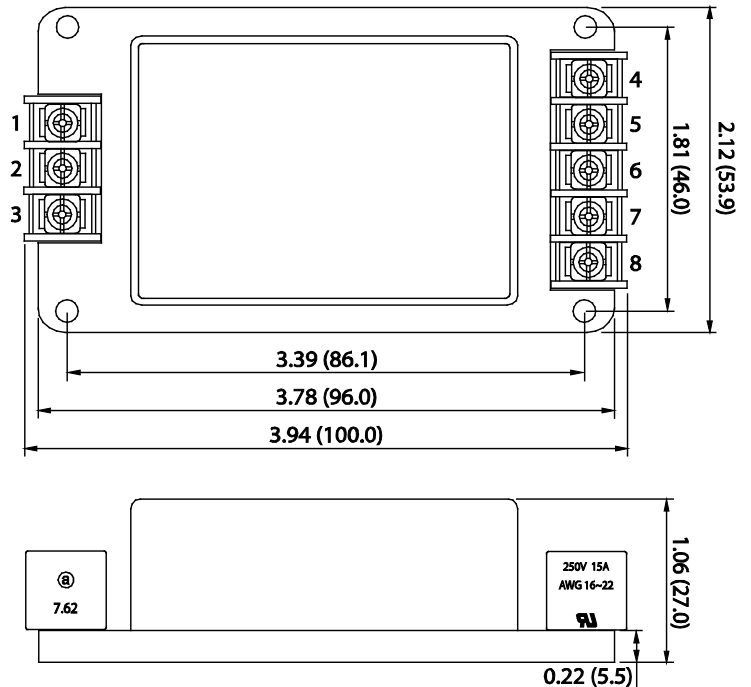


PSATC-A5



PIN CONNECTIONS		
PIN	SINGLE	DUAL
1	FG	FG
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	NO CONNECT	COMMON
7	+DC OUT	+DC OUT
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 ISO9001-2008 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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