



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

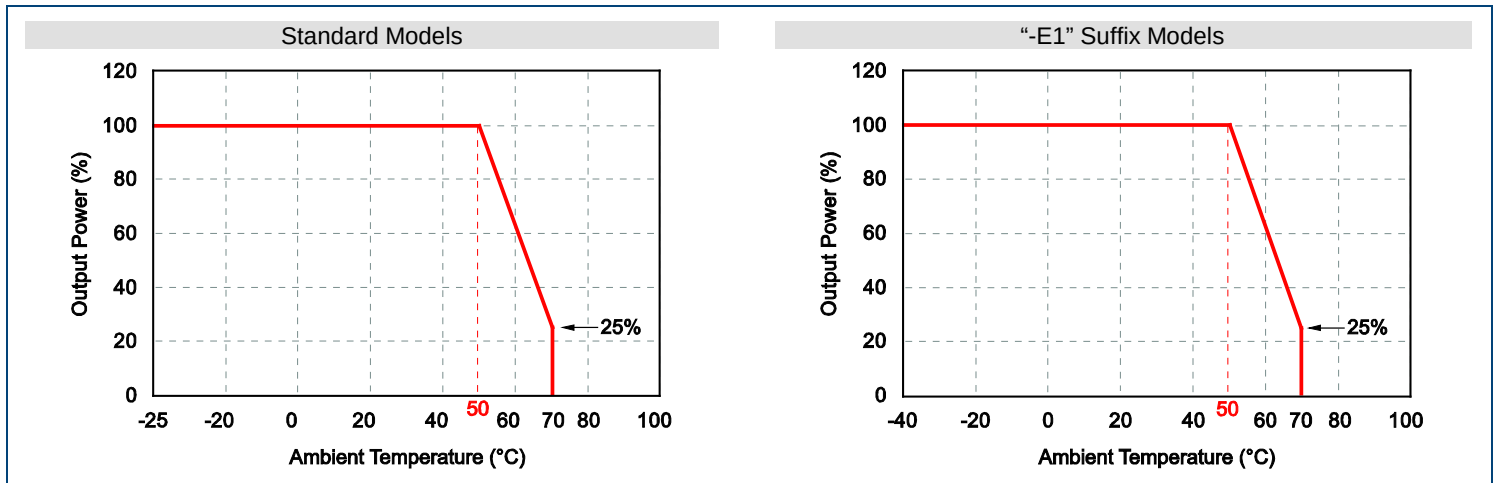
PSATC	-	12	S	-	E1	A2
Series Name		Output Voltage	Output Quantity		Operating Temperature Options	Screw Terminal Options
		3.3: 3.3 VDC	S: Single Output		None: -25°C to +70°C Operating Temp.	None: Encapsulated PCB Mount
		5: 5 VDC			E1: -40°C to +70°C Operating Temp.	A2: See page 4
		12: 12 VDC				A5: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

TECHNICAL SPECIFICATIONS: PSATC SERIES

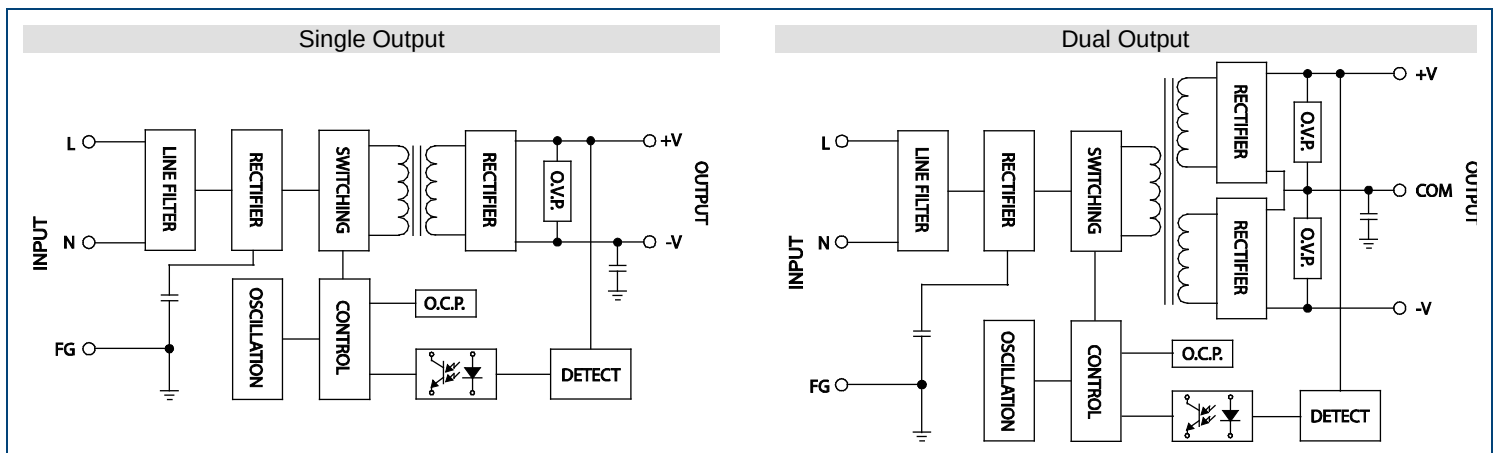
All specifications are based on 25°C, Nominal Input Voltage, and Maximum Output Current unless otherwise noted.
 We reserve the right to change specifications based on technological advances.

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				

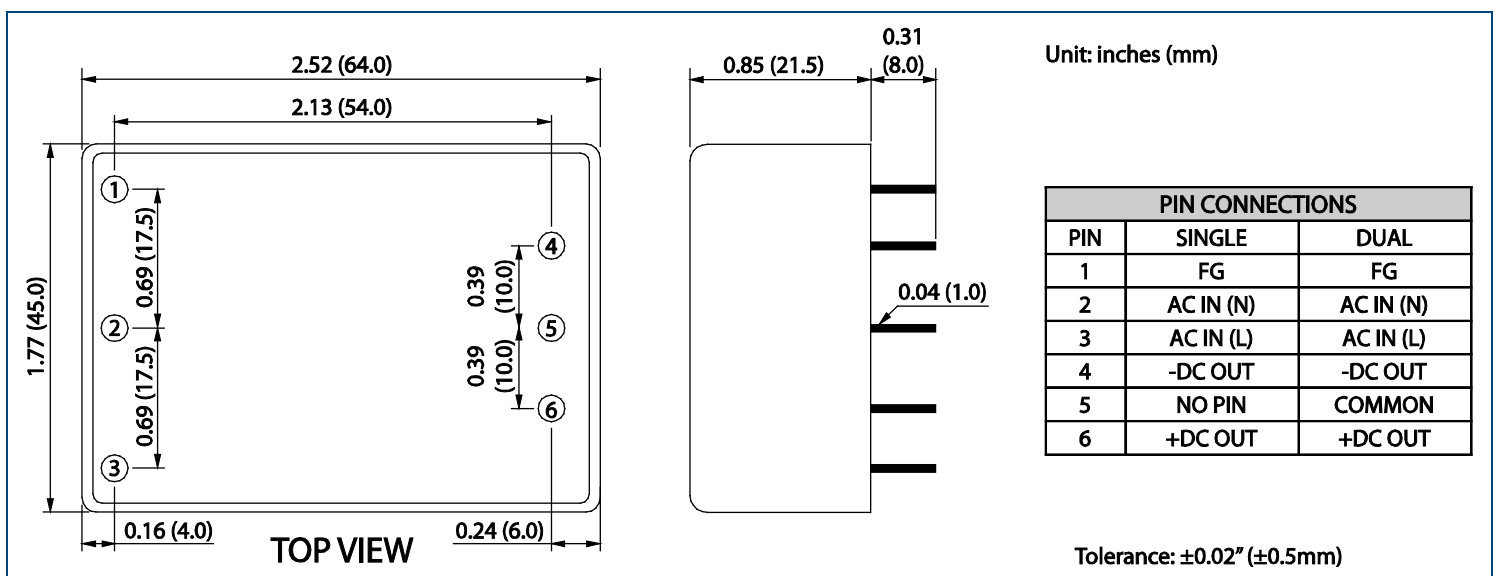
DERATING CURVES



BLOCK DIAGRAMS



MECHANICAL DRAWING



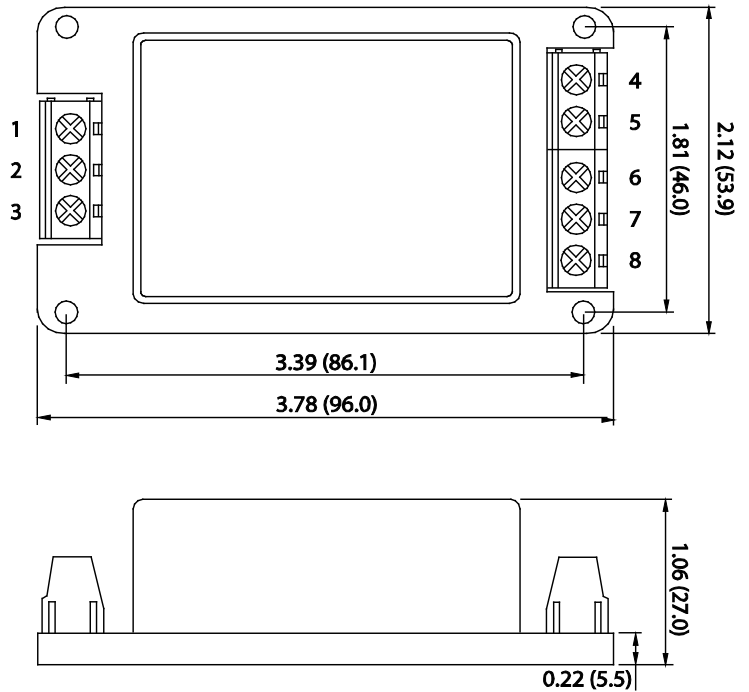
SCREW TERMINAL OPTIONS

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)

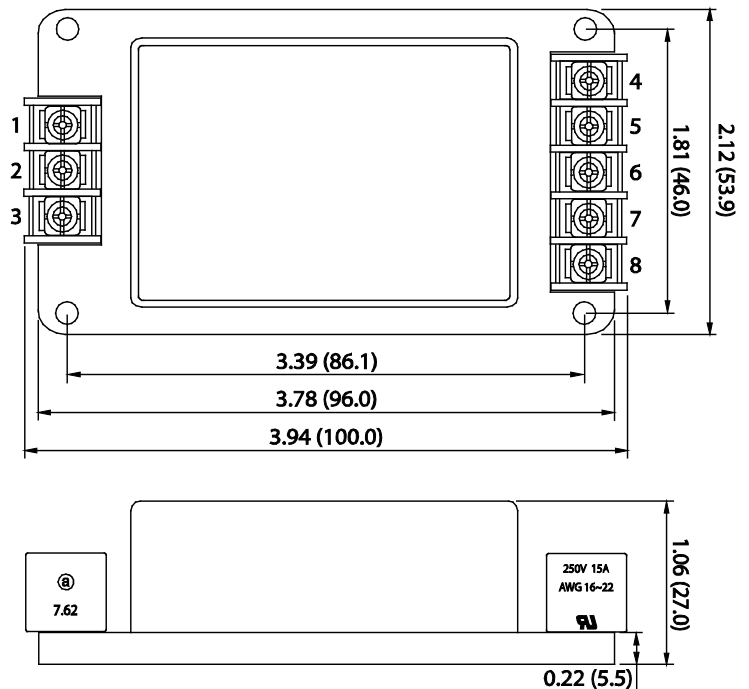


PSATC-A5



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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