



Size:  
2.52 x 1.77 x 0.93 inches  
64.0 x 45.0 x 23.5 mm

### FEATURES

- RoHS Compliant
- Isolation Class II
- 3000VAC I/O Isolation
- Up to 30 Watts Output Power
- High Efficiency up to 89%
- Fully Encapsulated Plastic Case
- < 0.3W No Load Input Power
- 3.3V, 5V, 12V, 15V, and 24V Single Output Models
- 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
- Screw Terminal Mechanical Options Available
- UL/cUL, CE, and CB Safety Approvals

### DESCRIPTION

The PSATC30 series of AC/DC power supplies provides up to 30 watts of output power in a 2.52" x 1.77" x 0.93" encapsulated PCB mountable package. This series consists of 3.3V, 5V, 12V, 15V, and 24V single 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 3000VAC I/O isolation. This series is also protected against over power, over voltage, and short circuit conditions. The PSATC30 series 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

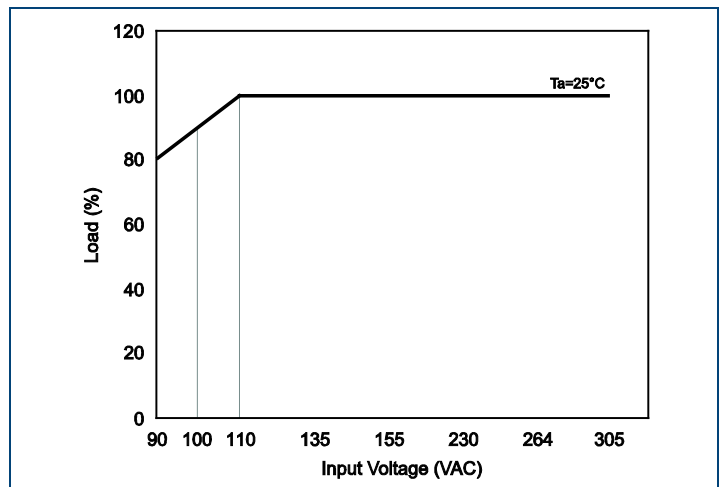
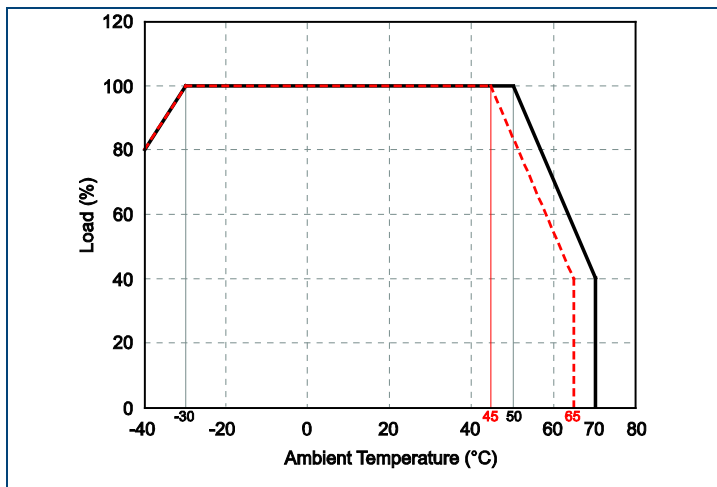
Model Number	Input Voltage	Output Voltage	Output Current		Ripple & Noise	Output Power	Efficiency	Maximum Capacitive Load
			Min Load	Max Load				
PSATC30-3.3S	90~305 VAC (120~430 VDC)	3.3 VDC	0%	5000mA	100mVp-p	16.5W	80%	8200µF
PSATC30-5S		5 VDC	0%	5000mA	100mVp-p	25W	84%	8200µF
PSATC30-12S		12 VDC	0%	2500mA	150mVp-p	30W	89%	2200µF
PSATC30-15S		15 VDC	0%	2000mA	150mVp-p	30W	87%	1500µF
PSATC30-24S		24 VDC	0%	1250mA	240mVp-p	30W	86%	560µF

#### NOTES

1. Screw terminal mechanical options available (see page 4). Please call factory for ordering details.
2. This product is Listed to applicable standards and requirements by UL.

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

### DERATING



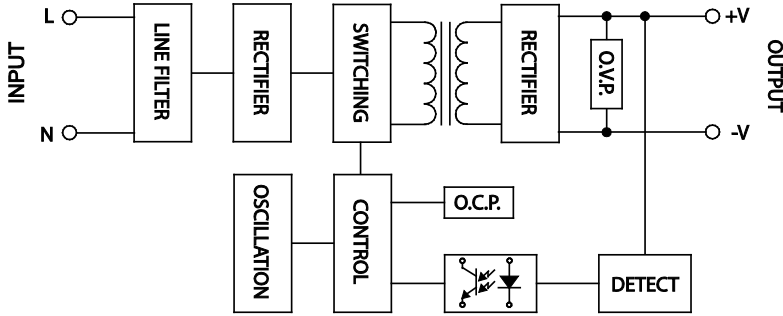
**SPECIFICATIONS: PSATC30 SERIES**

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.

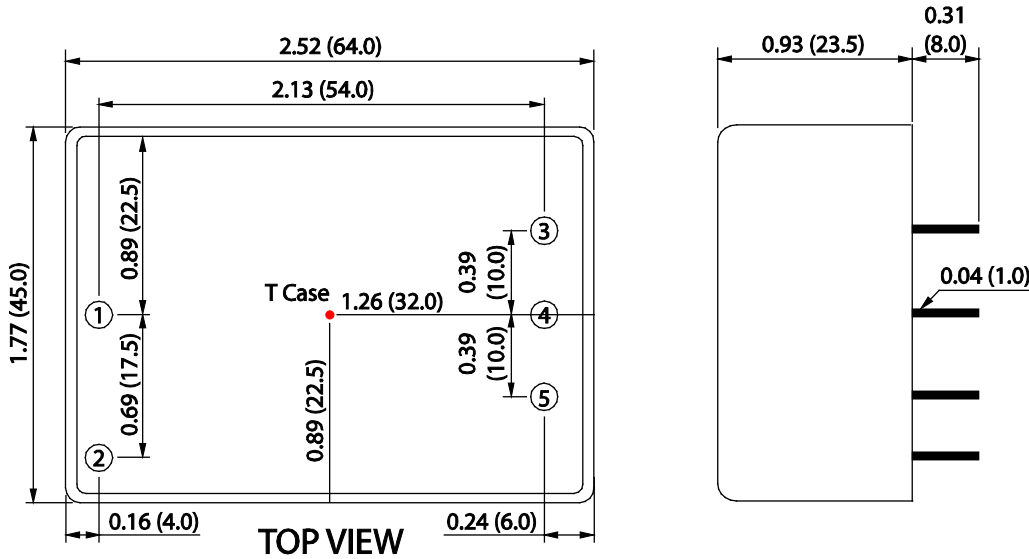
SPECIFICATION	TEST CONDITIONS	Min	Typ	Max	Unit
<b>INPUT SPECIFICATIONS</b>					
Input Voltage	AC input voltage range	90		305	VAC
	DC input voltage range	120		430	VDC
Input Frequency		47		63	Hz
Input Current	At 115VAC and full load			600	mA
	At 230VAC and full load			400	
Inrush Current (<2ms)	At 115VAC and cold start			30	A
	At 230VAC and cold start			60	
No Load Input Power	Under 240VAC			0.3	W
External Fuse (recommended)		3.15A slow blow type			
<b>OUTPUT SPECIFICATIONS</b>					
Output Voltage		See Table			
Voltage Accuracy		-2		+2	%
Line Regulation	Low Line to High Line	-0.5		+0.5	%
Load Regulation	10% - 100% full load	3.3V output model		+1.5	%
		5V, 12V, 15V, 24V output models	-1	+1	
Output Power		See Table			
Output Current		See Table			
Minimum Load		0			%
Ripple & Noise (20MHz BW)	Measured with 0.1µF and 47µF capacitors in parallel	See Table			
Max Capacitive Load	At 100~240VAC	See Table			
Temperature Coefficient		-0.02		+0.02	%/°C
<b>PROTECTION</b>					
Short Circuit Protection		Hiccup mode, indefinite (auto-recovery)			
Over Voltage Protection		Zener diode clamp			
Over Power Protection		Hiccup technique, auto-recovery			
<b>GENERAL SPECIFICATIONS</b>					
Efficiency	At 230VAC	See Table			
Isolation Voltage	Input to Output	3000			VAC
	Input to FG	1500			
	Output to FG	500			
Leakage Current	At < 240VAC			0.25	mA
<b>ENVIRONMENTAL SPECIFICATIONS</b>					
Operating Temperature	With derating (see derating curve)	-40		+70	°C
Operating Case Temperature	Under 115VAC			+78	°C
	Over 115VAC			+85	
Storage Temperature		-40		+85	°C
Humidity				95	% RH
Cooling		Free air convection			
MTBF	25°C (MIL-HDBK-217F)	250,000			hours
<b>PHYSICAL SPECIFICATIONS</b>					
Weight		4.6oz (130g)			
Case Material		Plastic resin with fiberglass (Flammability to UL 94V-0)			
Dimensions (L x W x H)		2.52 x 1.77 x 0.93 inches (64.0 x 45.0 x 23.5 mm)			
<b>SAFETY &amp; EMC</b>					
Safety Approvals		UL/cUL <sup>(2)</sup> , CE, CB			
EMC	EMI (Conducted and Radiated Emissions)	EN 55022 class B			
	EMS (Noise Immunity)	EN 55024			

**BLOCK DIAGRAM**

Single Output



**MECHANICAL DRAWING**



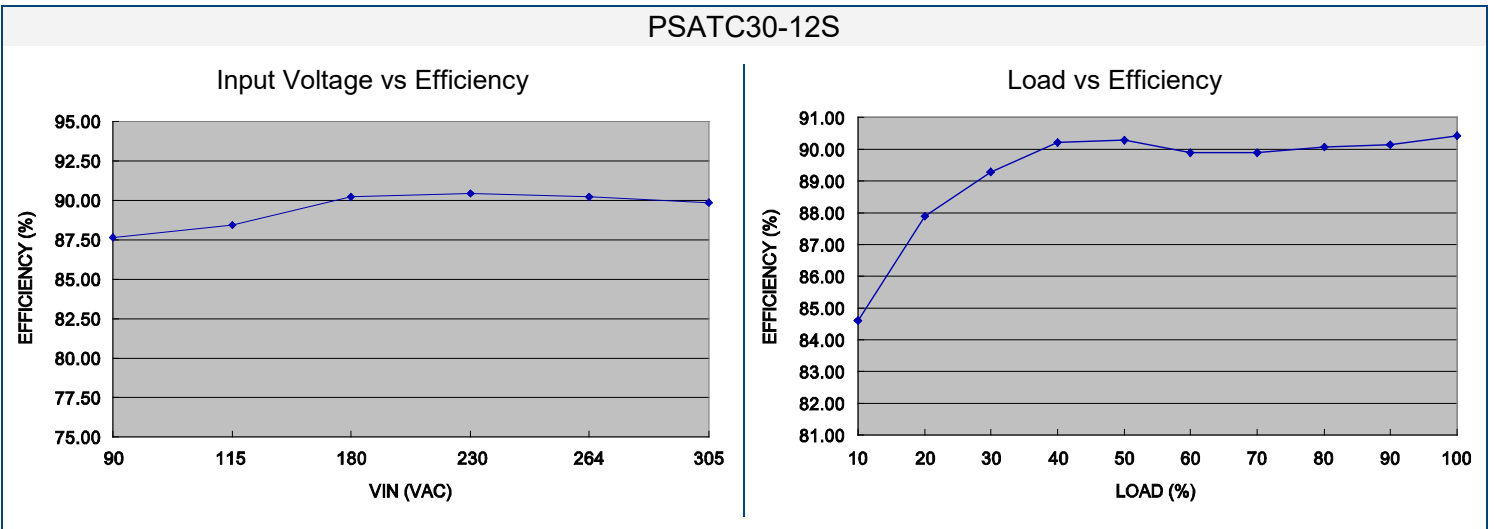
Unit: inches (mm)

PIN CONNECTIONS	
PIN	ASSIGNMENT
1	AC IN (N)
2	AC IN (L)
3	-DC OUT
4	NO PIN
5	+DC OUT

Tolerance: ±0.02" (±0.5mm)

**EFFICIENCY VS LOAD CURVES**

PSATC30-12S



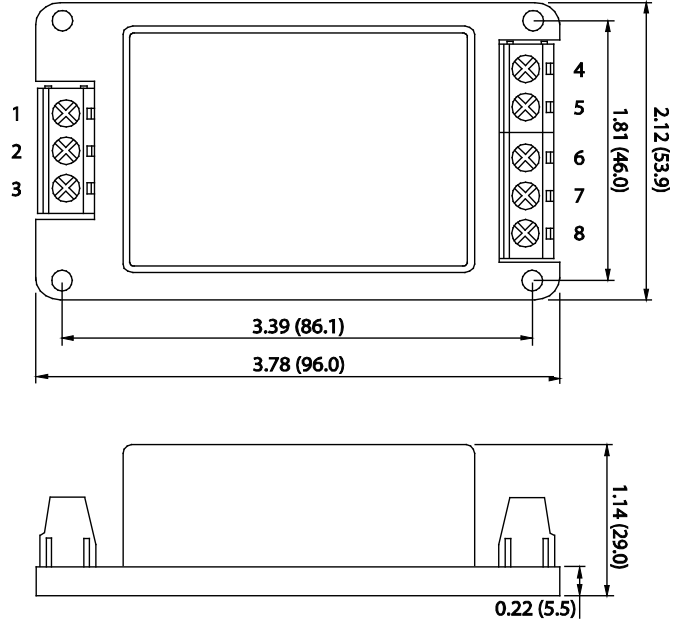
SCREW TERMINAL OPTIONS

PSATC30-A2



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

Unit: inches (mm)



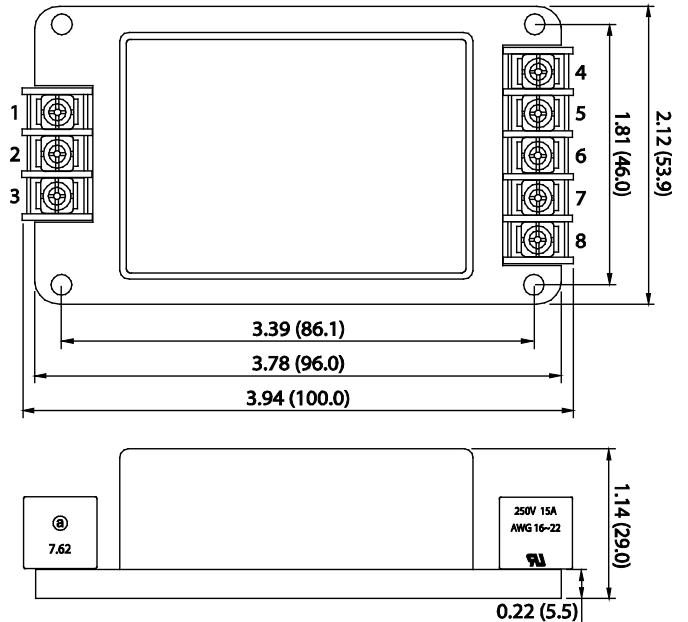
Mounting hole size: 3.5mm Input & Output screw size: M3x10mm

PSATC30-A5



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

Unit: inches (mm)



Mounting hole size: 3.5mm Input & Output screw size: M3x10mm

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## COMPANY INFORMATION

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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.

Contact **Wall Industries** for further information:

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