



Size:
2.06 x 1.07 x 0.93 inches
52.4 x 27.2 x 23.5 mm

Weight:
1.8oz (51g)

FEATURES

- Isolation Class II
- RoHS Compliant
- 10 Watts Output Power
- Regulated Single Outputs
- Low Ripple & Noise
- MTBF > 330,000 Hours
- Fully Encapsulated Plastic Case
- PCB Mountable Switching Power Supply
- -25°C to +70°C Operating Temperature Range
- Optional -40°C~+70°C Operating Temperature Range
- Universal Input Range: 90-264VAC (120-370VDC)
- Short Circuit, Over Power, & Over Voltage Protection
- UL/cUL, CE, and CB Safety Approvals
- Two Screw Terminal Mechanical Options Available

DESCRIPTION

The PSAFC series of AC/DC switching power supplies provides 10 Watts of output power in a 2.06" x 1.07" x 0.93" encapsulated PCB mountable package. This series consists of single 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 PSAFC 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, CB, and CE safety approvals.

MODEL SELECTION TABLE

Model Number	Input Voltage Range	Output Voltage	Output Current		Output Power	Efficiency	Maximum Capacitive Load
			Min Load	Max Load			
PSAFC-3.3S	90~264 VAC (120~370 VDC)	3.3 VDC	0%	2500mA	8.25W	74%	75,000µF
PSAFC-5S		5 VDC	0%	2000mA	10W	79%	40,000µF
PSAFC-12S		12 VDC	0%	833mA	10W	82%	8500µF
PSAFC-15S		15 VDC	0%	667mA	10W	78%	3500µF
PSAFC-24S		24 VDC	0%	417mA	10W	80%	1200µF

NOTES

1. For -40°C to +70°C extended operating temperature range please add the suffix -E1 to the model number (Ex: PSAFC-12S-E1).
2. Screw terminal mechanical options available (see page 4). Please call factory for ordering details.

MODEL NUMBER SETUP

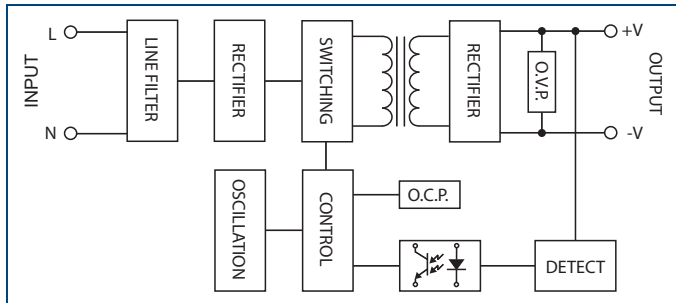
PSAFC	-	12	S	-	E1	A2
Series Name		Output Voltage	Output Quantity		Operating Temperature Options	Screw Terminal Options
		3.3: 3.3 VDC 5: 5 VDC 12: 12 VDC 15: 15 VDC 24: 24 VDC	S: Single Output		None: -25°C to +70°C Operating Temp. E1: -40°C to +70°C Operating Temp.	None: Encapsulated PCB Mount A2: See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

SPECIFICATIONS: PSAFC SERIES

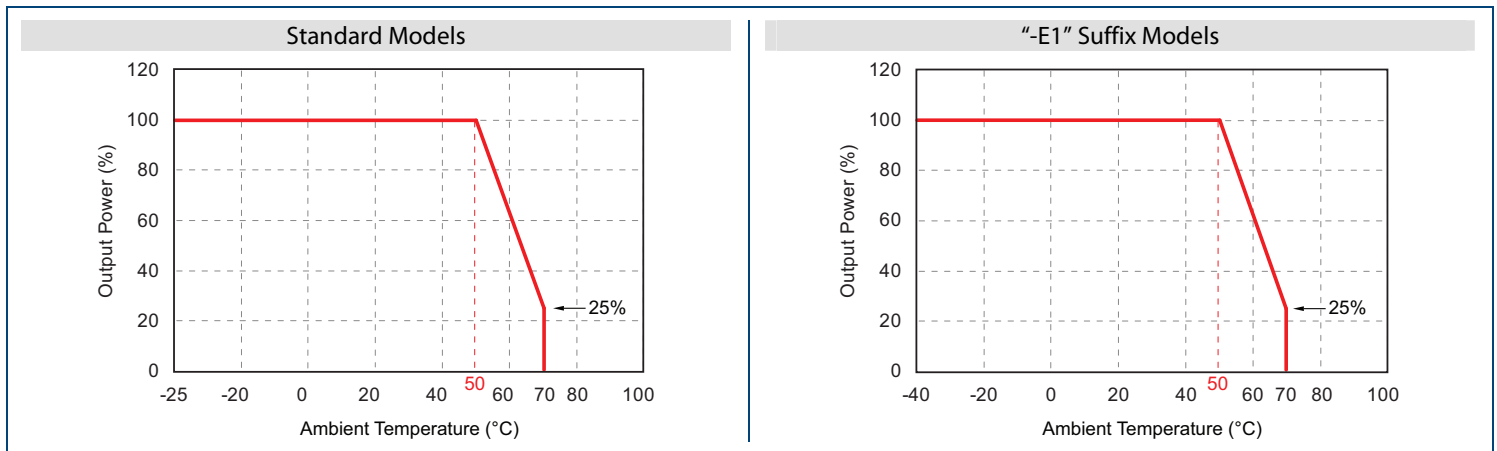
All specifications are based on 25°C, Nominal Input Voltage, and Maximum Output Current unless otherwise noted.
 We reserve the right to change specifications based on technological advances.

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				220	mA	
		At 230VAC and full load				150		
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)				2A slow blow type				
OUTPUT SPECIFICATIONS								
Output Voltage				See Table				
Voltage Accuracy				-2		+2	%	
Line Regulation		Low line to high line		-0.3		+0.3	%	
Load Regulation		10% - 100% load		-0.5		+0.5	%	
Output Power				See Table				
Output Current				See Table				
Minimum Load				0			%	
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		+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					125		KHz	
Isolation Voltage		Input to Output		3000			VAC	
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				20		85	% RH	
Vibration				10-55Hz 0.5mm width / 1 minute cycle				
Shock				20G (3 directions each 3 times				
Cooling				Free air convection				
MTBF		25°C (MIL-HDBK-217F)		330,000			hours	
PHYSICAL SPECIFICATIONS								
Weight				1.8oz (51g)				
Case Material				Plastic resin with fiberglass (Flammability to UL 94V-0)				
Dimensions (L x W x H)				2.06 x 1.07 x 0.93 inches (52.4 x 27.2 x 23.5 mm)				
SAFETY & EMC								
Safety Approvals				CE, UL/cUL, CE, CB				
EMC		EMI (Conducted and Radiated Emissions)		EN 55022 Class B				
		EMS (Noise Immunity)		EN 55024				

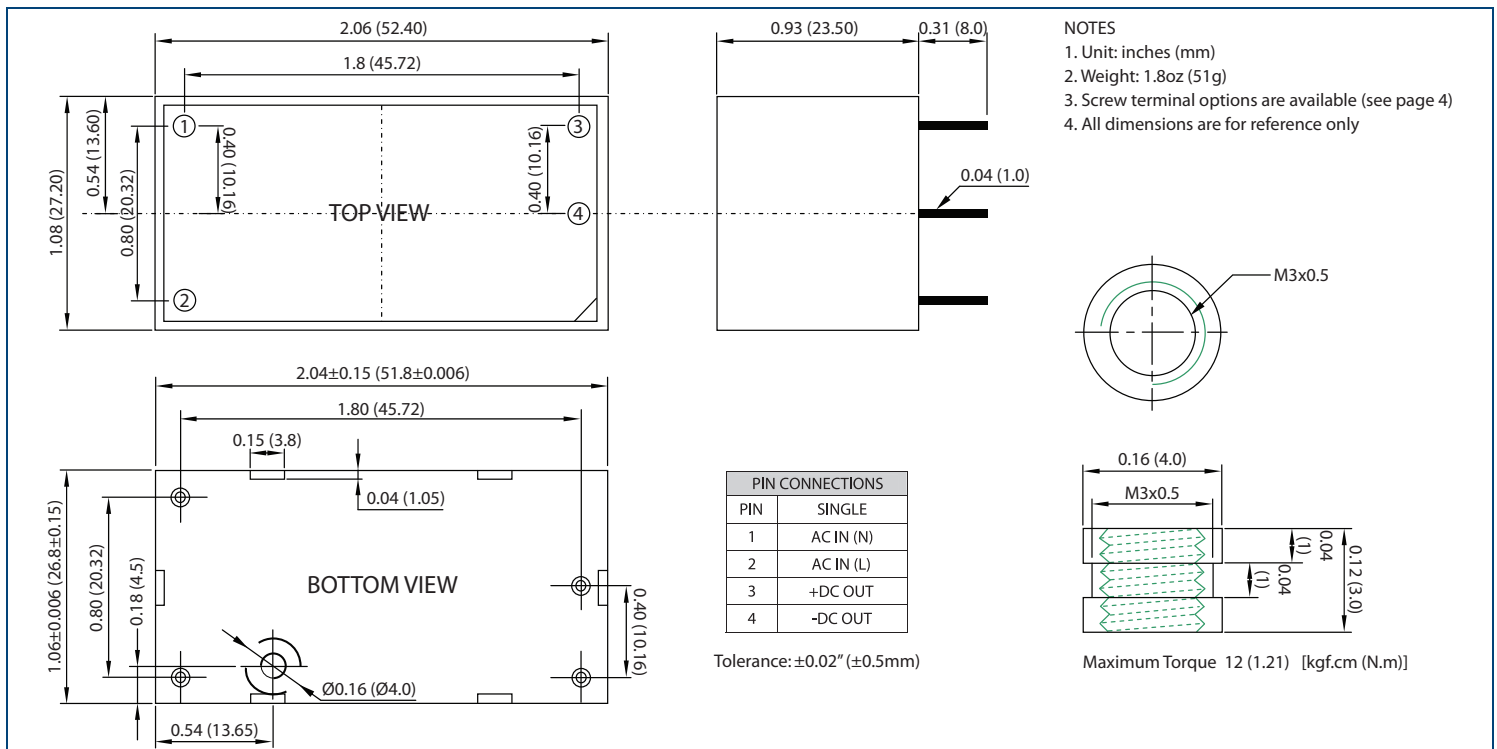
BLOCK DIAGRAM



DERATING CURVES



MECHANICAL DRAWING



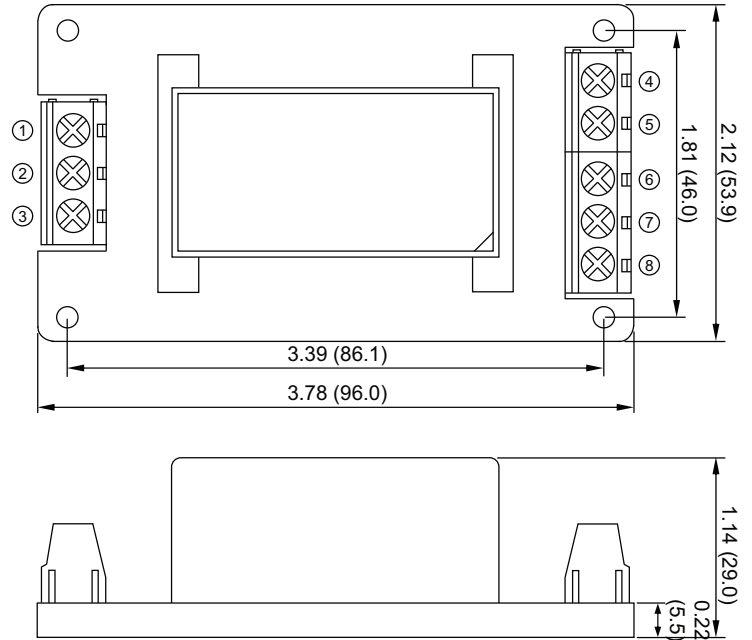
SCREW TERMINAL OPTIONS

PSAFC-A2



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

Unit: inches (mm)

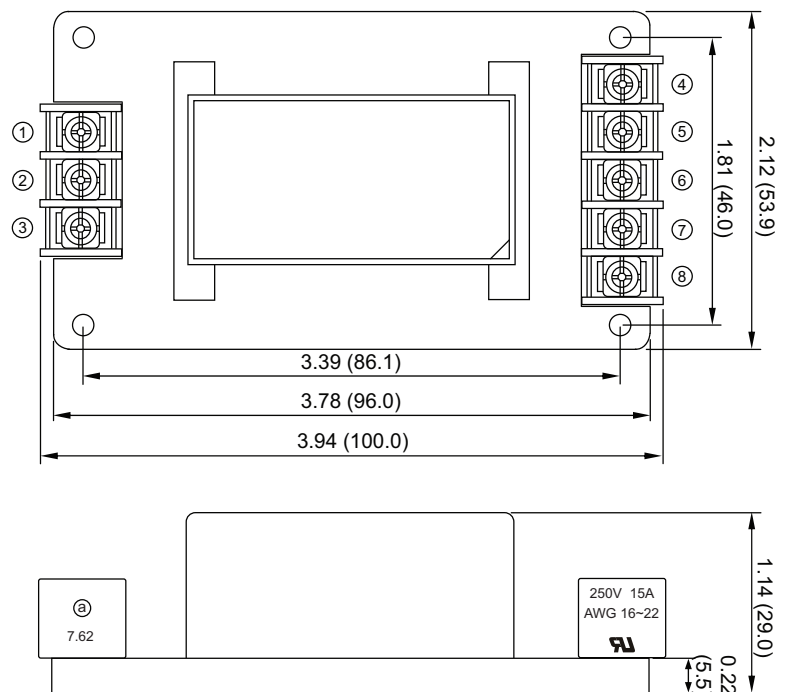


PSAFC-A5



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

Contact **Wall Industries** for further information:

Phone: ☎ (603) 778-2300
Toll Free: ☎ (888) 597-9255
Fax: ☎ (603) 778-9797
E-mail: sales@wallindustries.com
Web: www.wallindustries.com
Address: 37 Industrial Drive
Exeter, NH 03833