



Wall Industries, Inc.

PSAFC Series  
10 Watt Single Output  
Encapsulated PCB Mount  
AC/DC Switching Power Supply

## FEATURES

- High Efficiency
- Regulated Output
- Low Ripple and Noise
- Universal Input Range
- CE, CB, cUL, TUV Approvals
- Fully Encapsulated Plastic Case
- Switching Power Module for PCB Mounting



## 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.

INPUT SPECIFICATIONS	
Input Voltage Range	90 ~ 264VAC
Input Frequency	47 ~ 440Hz
Input Current (Full Load)	220mA max @ 115VAC, 150mA max @ 230VAC
Inrush Current (< 2ms)	10A max @ 115VAC, 20A max @ 230VAC
Leakage Current	12mA max 0.6W @ 115VAC, 14mA max 0.9W @ 230VAC
OUTPUT SPECIFICATIONS	
Output Voltage	See Table
Output Power Range	10 Watts max.
Voltage Accuracy	±2%
Line Regulation (LL – HL)	±0.3% typical
Load Regulation (5% to 100%)	±0.5% typical
Output Current	See Table
Ripple (Vp-p)	< 0.2% Vout +40mV max.
Noise (Vp-p)	< 0.5% Vout +50mV max.
Minimum Load	0%
Maximum Capacitive Load	470-23,000µF depending on model.
Hold Up Time	15ms min.
Temperature Coefficient	±0.02%/°C
PROTECTION	
Over Current Protection	Hiccup technique, auto-recovery
Over Voltage Protection	Zener diode clamp
Short Circuit Protection	Hiccup mode, indefinite (automatic recovery)
External Fuse Recommendation for Input	1.5A slow blow type
GENERAL SPECIFICATIONS	
Switching Frequency	125KHz
Efficiency	See Table
Isolation Voltage (Input to Output)	3000VAC
ENVIRONMENTAL SPECIFICATIONS	
Operating Temperature	-25°C to +70°C (with derating)
Storage Temperature	-40°C to +85°C
Humidity	20 - 85% RH
Vibration	10-55Hz 0.5mm width/ 1 minute cycle.
Shock	20 G (3 directions each 3 times)
Cooling	Free air convection
MTBF	> 330,000 hours @ 25°C (MIL-HDBK-217F)
PHYSICAL SPECIFICATIONS	
Case Material	Plastic resin with Fiberglass (flammability to UL 94V-0)
Weight	54g
Dimensions	2.06(L) x 1.07(W) x 0.93(H) inches (52.4(L) x 27.2(W) x 23.5(H) mm)
SAFETY & EMC	
Agency Approvals	UL/cUL, CE, CB
EMI (Conducted & Radiated Emission)	EN 55022 class B
EMS (Noise Immunity)	EN 55024

### OUTPUT VOLTAGE / CURRENT RATING CHART

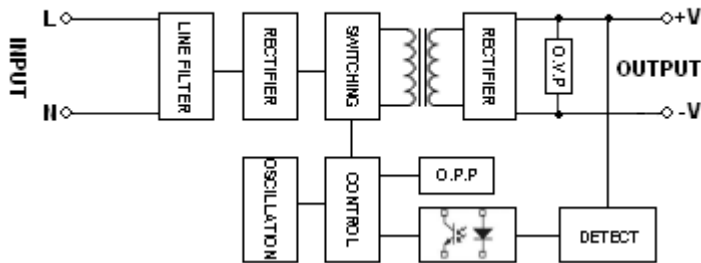
Model Number	Input Voltage	Output Voltage	Output Current	Output Power	Efficiency
PSAFC-3.3S	90 –264 VAC	3.3 VDC	2500mA	10W	70%
PSAFC-5S	90 –264 VAC	5 VDC	2000mA	10W	72%
PSAFC-12S	90 –264 VAC	12 VDC	833mA	10W	79%
PSAFC-15S	90 –264 VAC	15 VDC	667mA	10W	79%
PSAFC-24S	90 –264 VAC	24 VDC	417mA	10W	79%

### NOTES

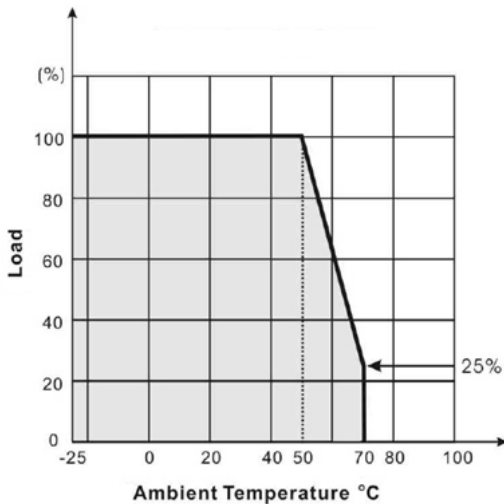
1. Dimensions of the mechanical drawing are shown in millimeters.
2. Weight of the unit is 54 grams.

### BLOCK DIAGRAM

#### Single Output



### DERATING CURVE

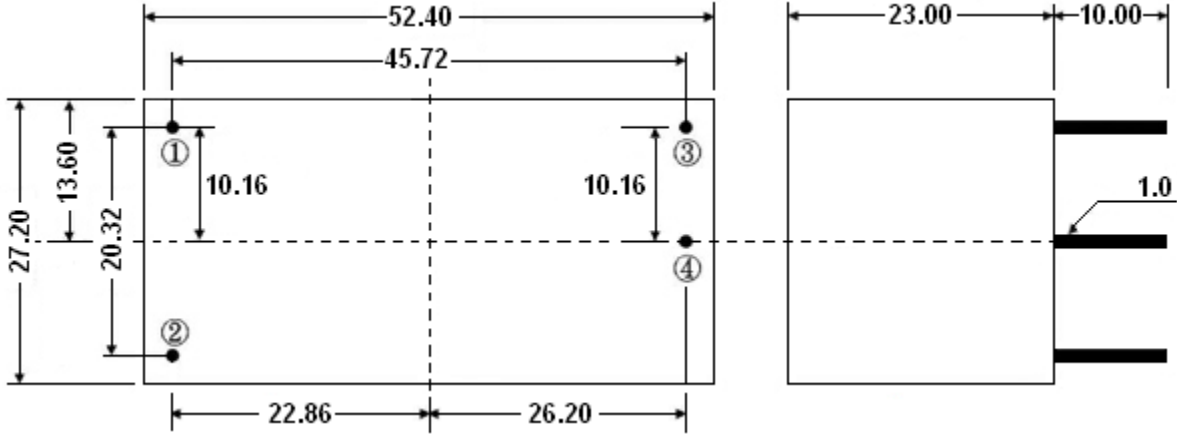




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MECHANICAL DRAWING



PIN CONNECTION	
PIN #	SINGLE
1	AC IN (N)
2	AC IN (L)
3	+DC OUT
4	-DC OUT