

FEATURES

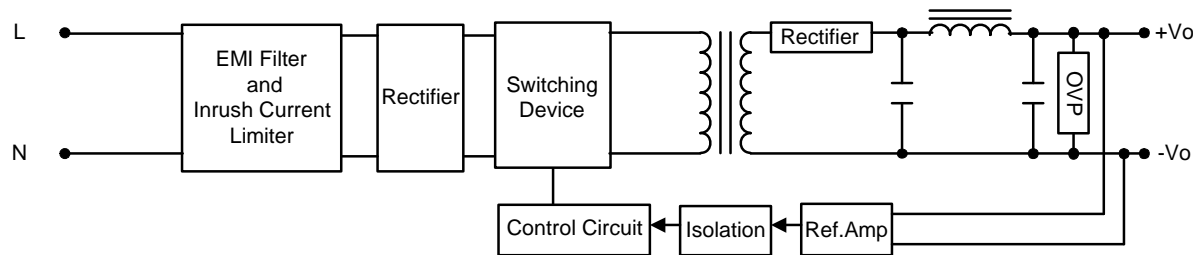
- Single Output
- I/O Isolation 3000VAC
- MTBF > 330,000 Hours
- High Efficiency up to 78%
- EMC Complies with EN61000
- IEC61140 Safety Class II Approved
- 85~265VAC, 47~440Hz Universal Input Range
- IEC / EN / UL 60950-1 Safety Standards Approved
- Operating Temperature 71°C (Refer to Derating Curve)
- EMI Complies with EN55022 Class B and FCC part 15, level B



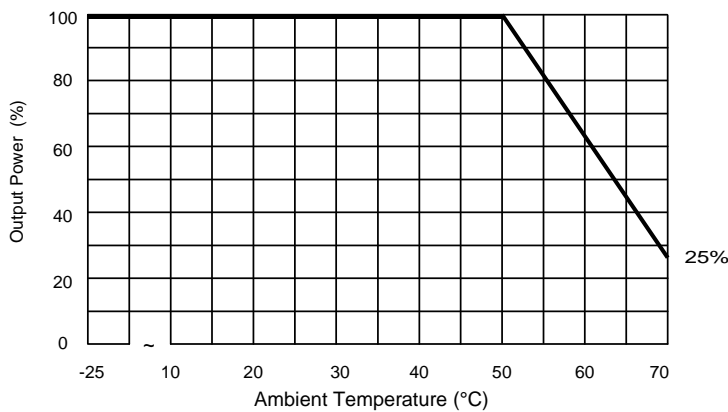
DESCRIPTION

The PSADF series of AC/DC power supplies offers 7 Watts of output power in an encapsulated design. These modules have a single output and a universal input range of 85-265VAC. Other features include continuous short circuit protection, over voltage protection, and output current limiting. These units are also EMC EN61000-4 (-2,-3,-4) and EMI EN55022 level B approved. The compliance to these EMI specifications minimizes system design time, cost, and eliminates the need for external filter components. The PSADF series has IEC/ EN/UL 60950-1 safety approvals, which qualifies this product for worldwide markets. This series has a wide variety of applications including both commercial and industrial with a MTBF of 330,000 hours.

BLOCK DIAGRAM



DERATING CURVE



MODEL SELECTION GUIDE

Model Number	Output Voltage	Output Current		Input Current (115VAC, 60Hz)		Output Power	Efficiency (typ)	Capacitive Load (max)
		Min	Max	Nom	Max			
PSADF-07S03	3.3 VDC	140mA	1400mA	10mA	96mA	4.62W	70%	2200µF
PSADF-07S05	5 VDC	140mA	1400mA	10mA	139mA	7W	73%	2200µF
PSADF-07S12	12 VDC	58mA	583mA	10mA	130mA	7W	78%	1000µF
PSADF-07S15	15 VDC	47mA	466mA	10mA	130mA	7W	78%	1000µF
PSADF-07S24	24 VDC	29mA	291mA	10mA	130mA	7W	78%	680µF

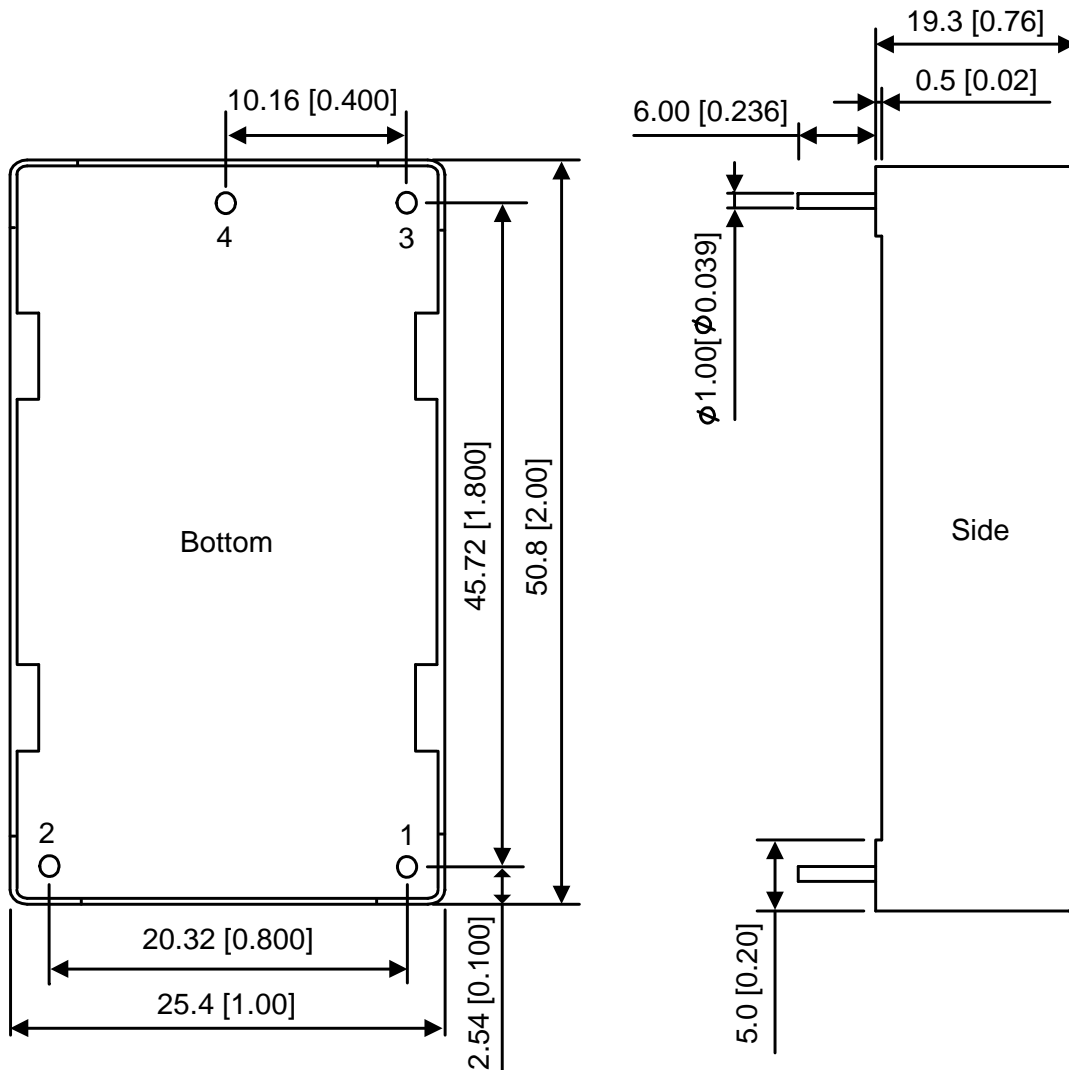
SPECIFICATIONS: PSADF Series						
All specifications are based on 25°C, Nominal Input Voltage, and Maximum Output Current unless otherwise noted. We reserve the right to change specifications based on technological advances.						
SPECIFICATIONS	TEST CONDITIONS		Min	Typ	Max	Unit
INPUT (V_{in})						
Operating Voltage Range			85		265	VAC
Input Frequency			47		440	Hz
Inrush Current	cold start at 25°C	115VAC			10	A
		230VAC			20	A
External Input Fuse (Recommended)			1.5A Slow – Blow Type			
OUTPUT (V_o)						
Output Voltage			See Table			
Output Voltage Accuracy				±1.0	±2.0	%
Load Regulation	I _o = min. to max.			±0.5	±1.0	%
Line Regulation	V _{in} = min. to max.			±0.5	±1.0	%
Overshoot					5.0	%
Output Power					7	W
Output Current			See Table			
Ripple & Noise (V _{p-p})	20MHz bandwidth	3.3VDC & 5.0VDC Outputs		1.5	1.8	% of V _o
		Other Outputs		0.8	1.0	% of V _o
Hold-up Time	115VAC, 60Hz			15		ms
PROTECTION						
Over Voltage Protection	Zener diode clamp			120		% of V _o
Current Limitation	85VAC, Hiccup technique, automatic recovery		105			%
Short Circuit Protection			Hiccup mode, indefinite (auto-recovery)			
GENERAL						
Efficiency			See Table			
Switching Frequency				100		KHz
Isolation Voltage	Input to output, 60 seconds		3000			VAC
Isolation Test Voltage	Input to output, flash tested for 1 second		4700			VDC
Isolation Resistance	Test Voltage = 500VDC		100			MΩ
ENVIRONMENTAL						
Operating Temperature	Ambient		-25		+71	°C
Storage Temperature			-40		+85	°C
Humidity					95	%
Cooling			free air convection			
Temperature Coefficient	All Outputs			±0.01	±0.02	%/°C
MTBF	MIL-HDBK-217F @ 25°C, Ground Benign		330,000 hours			
PHYSICAL						
Weight			Approximately 1.55oz (44g)			
Dimensions			2.00(L) x 1.00(W) x 0.76(H) inches 50.8(L) x 25.4(W) x 19.3(H) mm			
Flammability			UL94V-0			
Case Material			Plastic resin and Fiberglass			
SAFETY						
Safety Approvals			IEC/ EN / UL 60950-1			
Conducted EMI			EN55022 Class B			
Conducted EMC	Standard	Specification Requirement	Performance Criteria			
	EN61000-4-2	Air ±8KV Cont. ±4KV	B			
	EN61000-4-3	80 ~ 1000MHz 10V/m 80% AM 1KHz modulation	A			
	EN61000-4-4	AC port ±2KV DC, SL, TL±2KV Not less than 1 min.	B			
	EN61000-4-5	1.2/50µs (8/20µs) AC dif. ±1KV DC ±0.5KV	B			
	EN61000-4-6	0.15 ~ 80MHz 10Vrms (functional earth ports included) 80% AM 1KHz modulation	B			
	EN61000-4-11	30% 10ms 60% 100ms 95% 5000ms	B C C			

NOTES

1. Ripple & Noise measurement bandwidth is 0~20 MHz.
2. These power modules require a minimum output loading to maintain specified regulation.
3. Operation under no-load conditions will not damage these devices; however they may not meet all listed specifications.
4. All AC/DC modules should be externally fused at the front end for protection.
5. Other input and output voltage may be available, please contact factory.

MECHANICAL DRAWING

Unit: mm [inches]



Tolerance	Millimeters	Inches
	X.X±0.5	X.XX±0.02
	X.XX±0.25	X.XXX±0.01
Pin	±0.1	±0.004

PIN CONNECTIONS	
Pin	Single Output
1	AC (N) - AC Neutral
2	AC (L) - AC Line
3	+Vout
4	-Vout