Size: 4in x 2in x 1.18~1.34in
(101.6mm x 50.8mm x 29.97~34.04mm)

FEATURES

- Input Voltage Range of 90 to 264VAC
- Design for BF application
- Convection Cooling for Rated Power
- Peak Load (1.5 x rated current, Vo=rated for 5 sec)
- Safety Class II & EMI Class B
- Over Load, Short Circuit, Over Voltage Protection
- UL/CSA/EN60950-1, 2nd Edition and ANSI/AMMI/CSA/EN60601-1, 3.1 Edition Safety Approvals
- CE Mark

DESCRIPTION

The PSSNP-HFA series of AC/DC medical open frame power supply offers rated output power of 100 watts, max output power of 130 watts, or peak output power of 150 watts in a compact 4" x 2" x 1.18~1.34" package. This series consists of single output models with input voltage range of 90 to 264VAC. Each model in this series is designed for BF applications and has over load, short circuit, and over voltage protection. This series has UL/CSA/EN60950-1, 2nd edition and ANSI/AMMI/CSA/EN60601-1, 3rd edition safety approvals as well as CE mark.

MODEL SELECTION TABLE

Model Number(1)	Input Voltage Range	Output Voltage	Output Current				Initial Accuracy	Output Power			Step Efficiency			Efficiency
			Min	Rated	Max.	Peak		Rated	Max	Peak	20% Load	50% Load	100% Load	
PSSNP-HFA7 PSSNP-HFA7-A PSSNP-HFA7-H	90-264VAC	12V	0A	8.5A	10A	12.5A	11.8~12.2V	100W	130W	150W	85% 80%	86% 83%	87% 83%	86% 82%
PSSNP-HFA8 PSSNP-HFA8-A PSSNP-HFA8-H		15V	0A	6.66A	8A	9.4A	14.8~15.2V	100W	130W	150W	85% 77%	86% 83%	87% 83%	86% 81%
PSSNP-HFA9 PSSNP-HFA9-A PSSNP-HFA9-H		24V	0A	4.17A	5.42A	6.25A	23.8~24.2V	100W	130W	150W	85% 82%	86% 84%	87% 85%	86% 84%
PSSNP-HFAT PSSNP-HFAT-A PSSNP-HFAT-H		48V	0A	2.1A	2.7A	2.92A	47.8~48.2V	100W	130W	150W	85% 81%	86% 86%	87% 86%	86% 84%

SPECIFICATIONS

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 Range		90		264	VAC
Input Frequency		47		63	Hz
Inrush Current	@115VAC			30	A
	@230VAC			60	
OUTPUT SPECIFICATIONS					
Output Voltage		See Table			
Voltage Accuracy		See Table			
Output Power		See Table			
Output Current		See Table			
Hold-Up Time			16		ms
PROTECTION					
Short Circuit Protection		Automatic Recovery			
Over Load Protection		Automatic Recovery			
Over Voltage Protection		Latch Off			
ENVIRONMENTAL SPECIFICATIONS					
Operating Case Temperature	Derating: 2.5%/°C >50°C for Convection Cooling	-40		+70	ºC
Storage Temperature		-40		+85	ºC
Operation Altitude			5,000		m
Cooling	Rated Load	Convection Cooling			
	Max. Load	Forced Air			

SPECIFICATIONS

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
GENERAL SPECIFICATIONS					
Efficiency		See Table			
Isolation Grade	Primary ←→ Ground	1MOPP (1500VAC)			
	Primary ←→ Secondary	2MOPP (4000VAC)			
	Secondary ←→ Ground	1MOPP (1500VAC)			
Leakage Current	Earth Leakage Current			300	uA
	Touch Current			100	
PHYSICAL SPECIFICATIONS					
Weight		Approx. 5.82oz (165g)			
Dimensions (L x W x H)	PSSNP-HFA7/-A/-H	4in x 2in x 1.32in (101.6mm x 50.8mm x 33.53mm)			
	PSSNP-HFA8/-A/-H	4in x 2in x 1.34in (101.6mm x 50.8mm x 34.04mm)			
	PSSNP-HFA9/-A/-H	4in x 2in x 1.18in (101.6mm x 50.8mm x 29.97mm)			
	PSSNP-HFAT/-A/-H	4in x 2in x 1.20in (101.6mm x 50.8mm x 30.48mm)			
SAFETY CHARACTERISTICS					
Safety Approvals	UL/CSA/EN60950-1, 2nd Edition(7) ANSI/AMMI/CSA/EN60601-1, 3.1 Edition CB Report CE Mark RM Report/File				
EMI	EN55011 "B", EN61000-3-3				
Harmonics	EN61000-3-2				Class A
EMS	EN61000-4-2, -3, -4, -5, -6, -8, -11				
Energy Saving	Energy Star 6.0 for computers and displays ErP Regulation EC(No) 1275/2008				

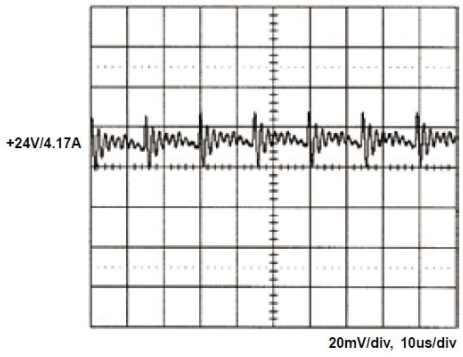
NOTES

1. Most power supplies will create audible burst sound at light load, if the application meets input power <0.5W at standby mode
   PSSNP-HFAx is for ITE & Medical applications which require standby mode.
   PSSNP-HFAx-A is for ITE & Medical applications but without burst sound and no standby mode.
   PSSNP-HFAx-H is for Home Healthcare application, input class II and EMI class B.
2. Standby Power Consumption with system:
   For computers and displays, Energy Star in U.S. and ErP regulation in Europe require the input power should be less than 0.5W at standby mode.
3. Output Load: 100W for Convection cooling, 130W for forced air cooling.
4. Peak Load Duration: Peak 150W can last for 5 sec.
5. EMI Grounding: if there is metal sheet under the power supply, connect the EMI ground to that metal sheet.
6. Safety application will be proceeded upon request.
7. This product is Listed to applicable standards and requirements by UL.

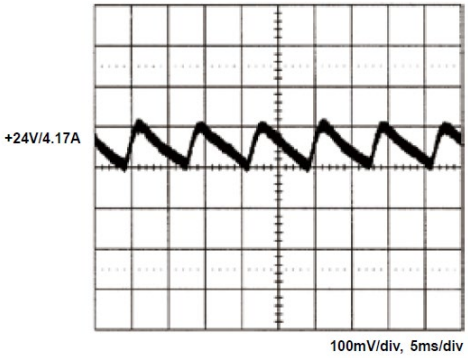
**Due to advances in technology, specifications subject to change without notice.*

PERFORMANCE CURVES

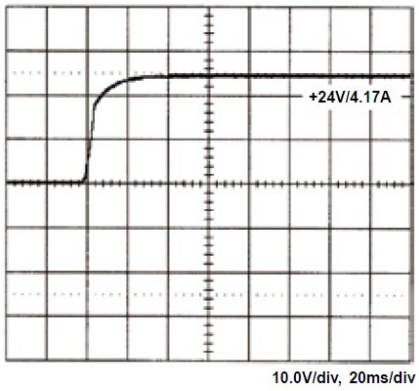
Switching Frequency Ripple



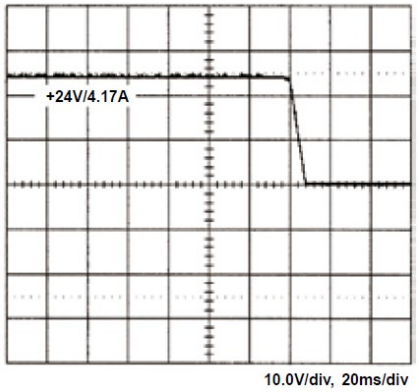
Line Frequency Ripple



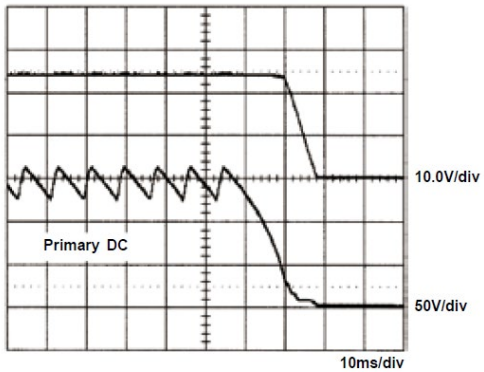
Output Turn On Wave Form



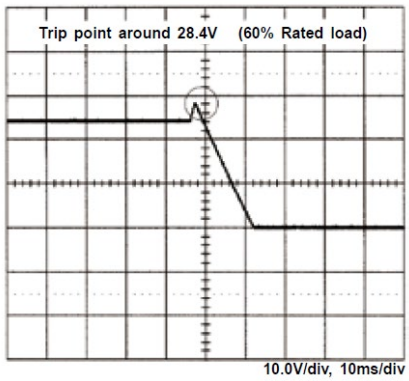
Output Turn Off Wave Form



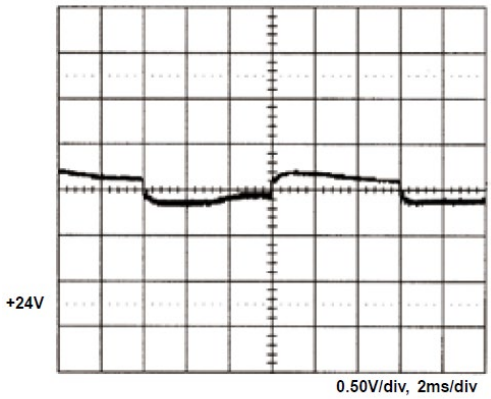
Hold Up Time



Over Voltage Protection

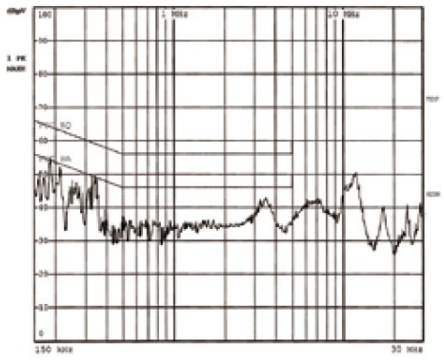


+24V Step Response

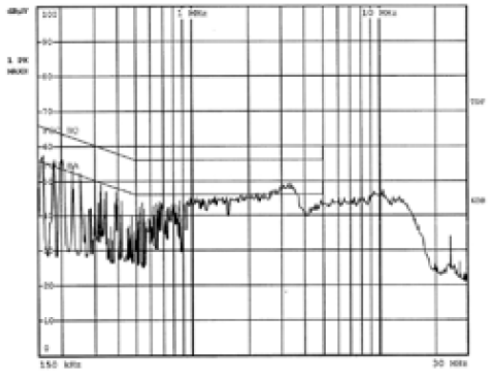


+24V step from 0.83A to 4.17A

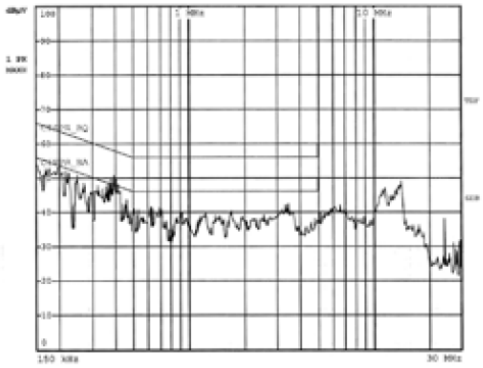
FCC B (Class I)



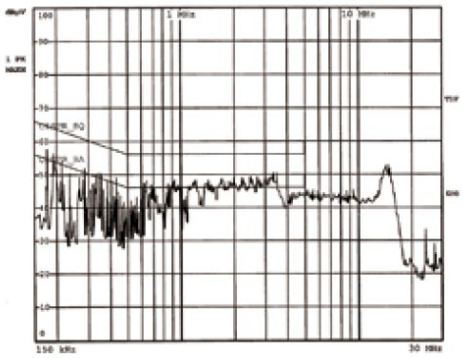
FCC B (Class II)



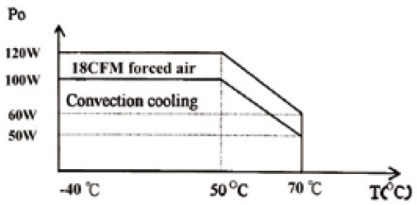
EN55011 22 B (Class I)



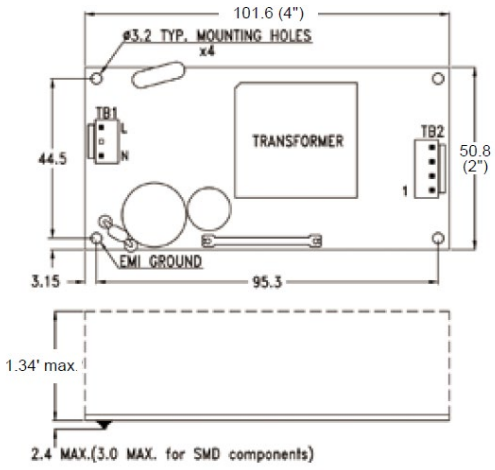
EN55011 22B (Class II)



Power Derating Curve



MECHANICAL DRAWINGS



Notes:

1. Mounting Hole: 44.5mm x 95.3mm
2. Connectors:
   AC Input: JST B2P3-VH or equivalent
   DC Output: JST B4P-VH or equivalent
3. Output Pin Assignment:

1	2	3	4
GND	GND	Vo	Vo

4. Packing:
   Net Weight: Approx. 165g/unit
   Gross Weight: Approx. 15.5kg/carton, 80 units/carton
   Carton Size: 382mm (L) x 374mm (W) x 277mm (H)

MODEL NUMBER SETUP

PSSNP	-	HFA	8	-	A
Series Name			Input Voltage		Applications
			7: 12V **8:** 15V **9:** 24V **T:** 48V		**Blank:** ITE & Medical Applicatons that Require Standby Mode **A:** ITE & Medical Applictaions without Burst Sound and No Standby Mode **H:** Home Healthcare Applications, Input Class II and EMI Class B

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: 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.

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