

Size: 6in x 3.5in x 1.42in
 (152.4mm x 88.9mm x 36.1mm)

FEATURES

- Input Voltage Range of 90 to 264VAC
- ITE and Medical Safety
- Single Side PCB
- Useful in Medical or Dental Equipment or ITE Equipment
- Single, Dual, Triple, or Quad Outputs
- Short Circuit, Over Load, and Over Voltage Protection
- Rated Output Power of 110W, Peak Output Power of 160 Watts
- UL 60950-1, UL 60601-1, CSA C22.2 No. 60950-1, 601.1, EN60950-1, and EN 60601-1 Safety Approvals

DESCRIPTION

The PSSNP-Y11 series of AC/DC open frame power supplies offers rated output power of 110 watts and peak output power of 160 watts in a 6" x 3.5" x 1.42" package. This series consists of single, dual, triple, and quad outputs with an input voltage range of 90 to 264VAC. Each model in this series has short circuit, over load, and over voltage protection and is useful in both medical and ITE applications. This series has UL 60905-1, UL 60601-1, CSA C22.2 No. 60905-1, 601.1, EN60950-1, and EN60601-1 safety approvals.

MODEL SELECTION TABLE

Single Output Models

Model Number	Input Voltage Range	Output Voltage	Output Current				Ripple & Noise	Voltage Accuracy	Output Power		Load Regulation	Efficiency
			Min	Rated	Max.	Peak			Rated	Peak		
PSSNP-Y116	90~264VAC	5V	6A	19A			1%	4.95V~5.05V	110W	160W	±1%	80%
PSSNP-Y117-1		12V	0A	9A		13A	1%	11.88V~12.12V	110W	160W	±1%	84%
PSSNP-Y118-1		15V	0.1A	7A		10.5A	1%	14.85V~15.15V	110W	160W	±1%	84%
PSSNP-Y119-1		24V	0.1A	4.5A		6.5A	1%	23.75V~24.24V	110W	160W	±1%	86%
PSSNP-Y11T		48V	0A	2.3A		3.5A	1%	47.6V~48.4V	110W	160W	±1%	87%

MODEL SELECTION TABLE

Dual Output Models

Model Number	Input Voltage Range	Output Voltage	Output Current				Ripple & Noise	Voltage Accuracy	Output Power		Load Regulation	Efficiency
			Min	Rated	Max.	Peak			Rated	Peak		
PSSNP-Y117	90~264VAC	12V	0A	8.5A		13A	1%	11.8V~12.12V	110W	160W	±1%	83%
		5V	0A	1A			1%	4.75V~5.25V				
PSSNP-Y118		15V	0A	7A		10.5A	1%	14.85V~15.15V	110W	160W	±1%	83%
		5V	0A	1A		1A	1%	4.75V~5.25V				
PSSNP-Y119		24V	0A	4.5A		6.5A	1%	23.75V~24.24V	110W	160W	±1%	85%
	5V	0A	1A		1A	1%	4.75V~5.25V					

MODEL SELECTION TABLE

Triple Output Models

Model Number	Input Voltage Range	Output Voltage	Output Current				Ripple & Noise	Voltage Accuracy	Output Power		Load Regulation	Efficiency
			Min	Rated	Max.	Peak			Rated	Peak		
PSSNP-Y111	90~264VAC	5V	0A	7A	13A	20A	1%	4.95V~5.05V	110W	160W	±3%	82%
		12V	0A	5A	7A	11A	1%	11.4~12.6V				
		-12V	0A	0.5A			1%	-11.4V~-12.6V				

MODEL SELECTION TABLE

Quad Output Models

Model Number	Input Voltage Range	Output Voltage	Output Current				Ripple & Noise	Voltage Accuracy	Output Power		Load Regulation	Efficiency
			Min	Rated	Max.	Peak			Rated	Peak		
PSSNP-Y11E	90~264VAC	3.3V	0A	10A	12A		50mV	3.2V~3.4V	110W	160W	±3%	78%
		5V	0A	8A	10A		1%	4.75V~5.25V				
		12V	0A	2A			1%	11.4V~12.6V				
		-12V	0A	0.2A			1%	-11.4~-12.6V				
PSSNP-Y110		5V	0A	6A	13A	20A	1%	4.95V~5.1V	110W	160W	±3%	82%
		12V	0A	5A	7A	11A	1%	11.4V~12.6V				
		-12V	0A	0.5A			1%	-11.4V~-12.6V				
		-5V	0A	0.5A			1%	-4.75~-5.25V				
PSSNP-Y11F		5V	0A	6A	10A	15A	1%	4.9V~5.1V	110W	160W	±3%	82%
		24V	0A	2A	3A	5.5A	1%	22.8V~25.2V				
		12V	0A	2A			1%	11.4V~12.6V				
		-12V	0A	0.3A			1%	-11.4V~-12.6V				

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, Cold Start 25°C			30	A
	@230VAC, Cold Start 25°C			60	A
OUTPUT SPECIFICATIONS					
Output Voltage			See Table		
Voltage Accuracy			See Table		
Line Regulation ⁽⁴⁾			±1		%
Load Regulation ⁽⁵⁾			See Table		
Output Power			See Table		
Output Current			See Table		
Ripple & Noise ⁽⁶⁾			See Table		
Hold Up Time ⁽⁷⁾	@Rated Load and 115VAC		20		mS
PROTECTION					
Short Circuit Protection			Automatic Recovery		
Over Load Protection			Automatic Recovery		
Over Voltage Protection			Latch Off		
ENVIRONMENTAL SPECIFICATIONS					
Operating Temperature (Open Frame)	Derating: 2.5%/°C>50°C	0		70	°C
Storage Temperature		-40		85	°C
Cooling		Free Air Convection			
GENERAL SPECIFICATIONS					
Efficiency ⁽⁸⁾	@Rated load and 115VAC		See Table		
Earth Leakage Current				300	uA
PHYSICAL SPECIFICATIONS					
Weight		12.70oz (360g)			
Dimensions (L x W x H)		6in x 3.5in x 1.42in (152.4mm x 88.9mm x 36.1mm)			
Connectors	TB1-AC Input	Single to Triple Outputs		Molex 5277-02A or Equivalent	
	TB2-DC Output	Quad Outputs		Molex 5277-10A or Equivalent	
				Molex 5277-12A or Equivalent	
	TB3-LED	Molex 5045-02A or Equivalent			
TB4-FAN	Molex 5405-02A or Equivalent				
SAFETY CHARACTERISTICS					
Safety Approvals		UL 60950-1, UL60601-1 ⁽⁹⁾ CSA C22.2 No. 60905-1, 601.1 EN 60950-1, EN60601-1			
EMI		FCC "B" EN55022 "B", EN55011 "B"			
EMS		EN61000-4-2, 3, 4, 5, 6, 8, 11			
Harmonics		EN61000-3-2			
					Class A

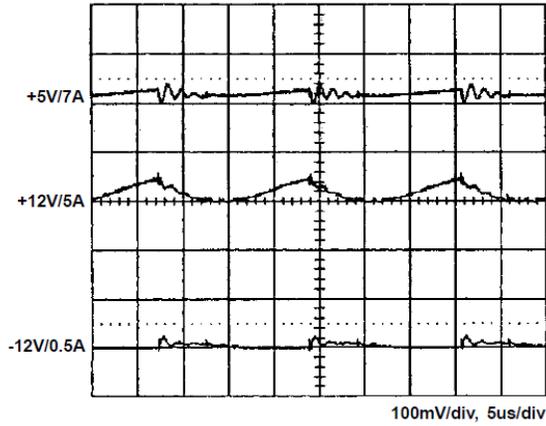
NOTES

- At peak load, output can last for 8 seconds without shut down.
- At factory, all outputs in 60% rated load condition, each output is checked to be within the accuracy range while the main output is set to within the specified accuracy range at rated load.
- PSSNP-Y09x is for both ITE and Medical Applications
- Line regulation is defined by changing ±10% of input voltage from nominal line at rated load.
- Load regulation is defined by changing ±40% of measured output load from 60% rated load at another output set to 60% rated load.
- Ripple and Noise is measured by using 15MHz bandwidth limited oscilloscope and terminated each output with a 0.47uF capacitor at rated load and nominal line.
- Hold up time is measured from the end of the last charging pulse to the time which the main output drops down to regulation limit at rated load and nominal line.
- Efficiency is measured at nominal line and rated load.
- This product is Listed to applicable standards and requirements by UL.

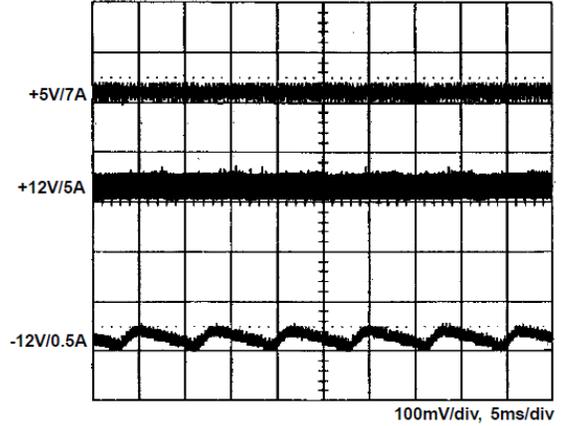
*Due to advances in technology, specifications subject to change without notice.

PERFORMANCE CURVES

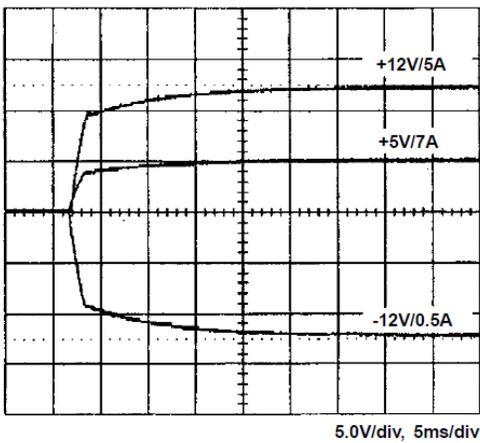
Switching Frequency Ripple



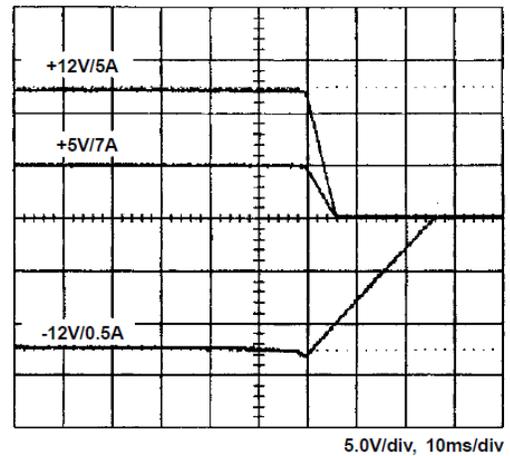
Line Frequency Ripple



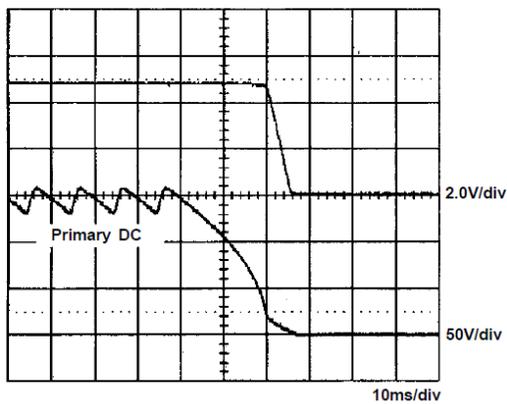
Output Turn On Wave Form



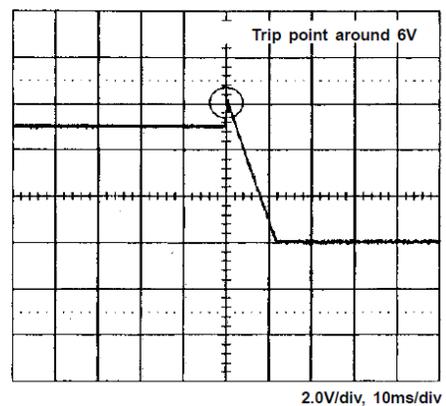
Output Turn Off Wave Form



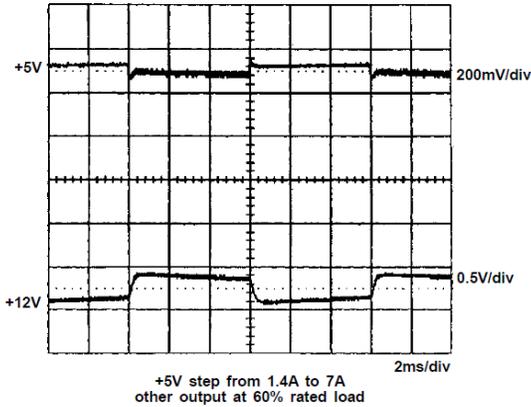
Hold-Up Time



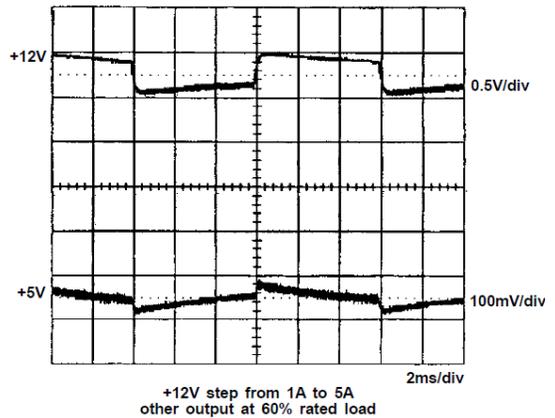
Over Voltage Protection



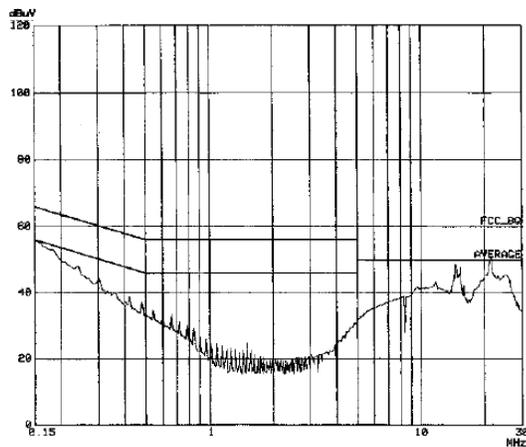
+5V Step Response



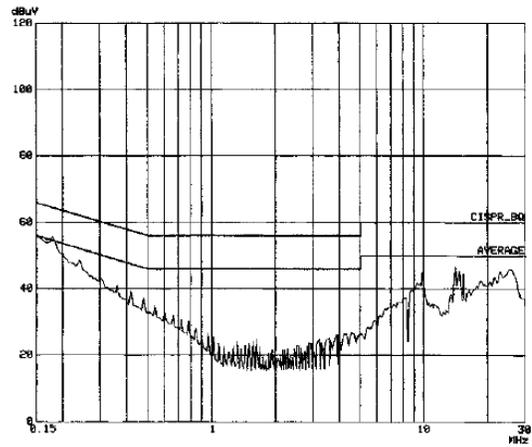
+12V Step Response



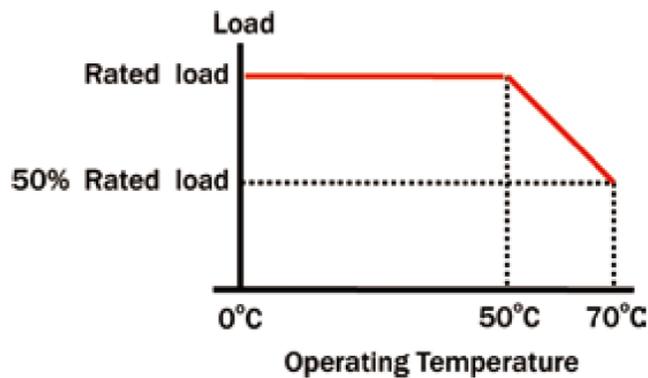
FCC B



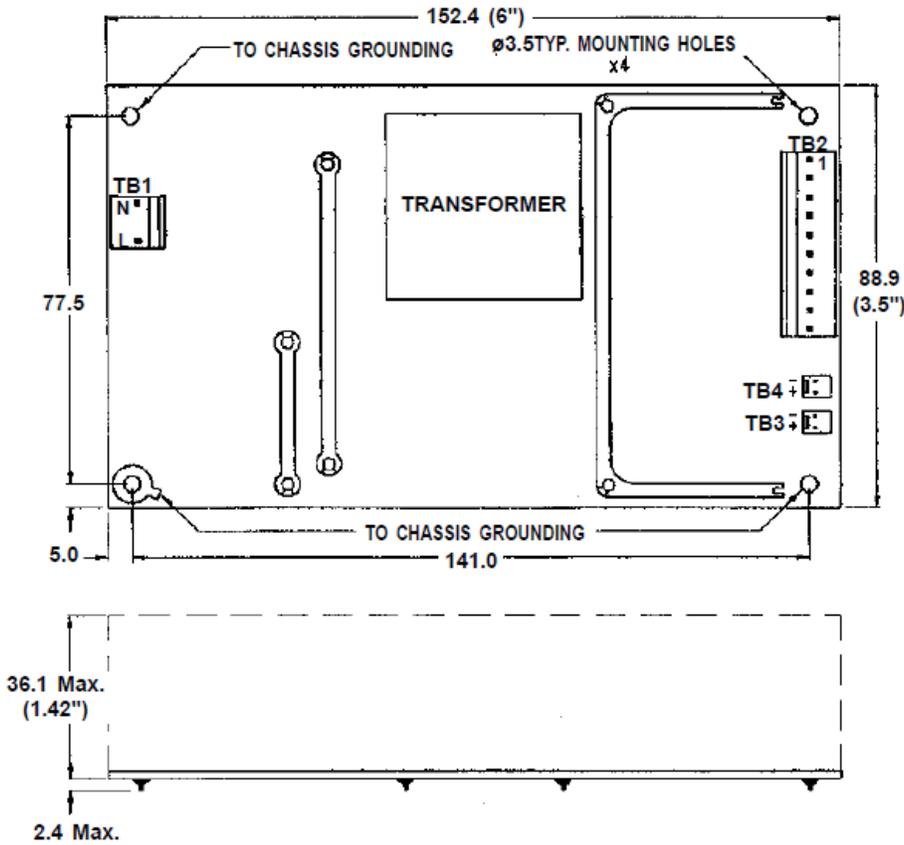
EN 55011 B



Power Derating Curve



MECHANICAL DRAWINGS



NOTES

1. Mounting Hole: 77.5mm x 141mm
2. Connectors:
 - a. TB1-AC Input: Molex 5277-02A or equivalent
 - b. TB2-DC Output: Single to Triple Outputs: Molex 5277-10A or equivalent
 Quad Outputs: Molex 5277-12A or equivalent
 - c. TB3-LED: Molex 5045-02A or equivalent
 - d. TB4-FAN: Molex 5045-02A or equivalent

3. Output Pin Assignment

Pin No.	1	2	3	4	5	6	7	8	9	10	11	12
PSSNP-Y11	+5V	+5V	+5V	GND	GND	GND	+12V	+12V	-12V	NC		
PSSNP-Y117	+12V	+12V	+12V	+12V	GND	GND	GND	GND	+5V	NC		
PSSNP-Y117-1	+12V	+12V	+12V	+12V	GND	GND	GND	GND	NC	NC		
PSSNP-118	+15V	+15V	+15V	+15V	GND	GND	GND	GND	+5V	NC		
PSSNP-118-1	+15V	+15V	+15V	+15V	GND	GND	GND	GND	+5V	NC		
PSSNP-119	+24V	+24V	+24V	+24V	GND	GND	GND	GND	+5V	NC		
PSSNP-119-1	+24V	+24V	+24V	+24V	GND	GND	GND	GND	NC	NC		
PSSNP-Y11T	+48V	+48V	+48V	+48V	GND	GND	GND	GND	NC	NC		
PSSNP-Y110	+5V	+5V	+5V	GND	GND	GND	+12V	+12V	-12V	GND	-5V	NC
PSSNP-Y11F	+5V	+5V	+5V	GND	GND	GND	+24V	+24V	+12V	GND	-12V	NV
PSSNP-Y11E	+3.3V	+3.3V	+3.3V	GND	GND	GND	GND	GND	+5V	+5V	+12V	-12

5. Packing: Net weight: 360g approx./unit
 Gross weight: 74kg approx./carton, 32 units/carton
 Carton size: 477mm x 290mm x 397mm

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.

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

©2019 Wall Industries, Inc. Specifications subject to change without notice. Wall Industries is not responsible for typographical errors. The information contained herein is for informational purposes only. This information is provided by Wall Industries and we make no representations or warranties of any kind, express or implied, about the completeness, accuracy, reliability, suitability or availability with respect to the information contained in this document for any purpose. All product and manufacturer names are trademarks or registered trademarks of their respective companies.