


**Size:**  
4.00 x 2.00 x 1.02 in

**Weight:**  
6.3~8.8oz  
(180~250g)

## FEATURES

- Class I
- RoHS Compliant
- Internal EMI Filter
- 100 Watts Output Power
- Active Power Factor Correction
- 100% Burn-in Tested
- Single Output Voltages Available from 11VDC to 55VDC
- Short Circuit, Over Voltage, and Over Load Protection
- Wide Input Voltage Range: 90~260VAC, 47~63Hz
- Meets FCC Part-15 Class B and CISPR-22 Class B Emission Limits
- UL 60950-1:2<sup>nd</sup> Edition, CSA C22.2 No.60950-1-07, IEC60950-1:2005/A2:2013, and EN60950-1:2006/A2:2013 Safety Approvals

## DESCRIPTION

The PSSBU99 series of Class I AC/DC switching mode power supplies provides 100 Watts of continuous output power in a 4.00" x 2.00" x 1.09" open frame package. This series consists of single output models ranging from 11VDC to 55VDC with a wide input voltage range of 90~260VAC. These power supplies have active PFC, an internal EMI filter, and over load, over voltage, and short circuit protection. This series also has UL 60950-1:2<sup>nd</sup> Edition, CSA C22.2 No.60950-1-07, IEC60950-1:2005/A2:2013, and EN60950-1:2006/A2:2013 safety approvals and meets FCC Part-15 class B and CISPR-22 Class B emission limits. These supplies are well suited for use in industrial equipment as well as many other applications.

## MODEL SELECTION TABLE

Model Number	Input Voltage Range	Output Voltage	Output Current	Total Regulation	Ripple & Noise	Output Power	Typ. Efficiency
PSSBU99-105	90 ~ 260 VAC	11~13 VDC	7.69~8.33A	±3%	100mVp-p	100W	87%
PSSBU99-106		13~16 VDC	6.25~7.69A	±3%	120mVp-p	100W	87%
PSSBU99-107		16~21 VDC	4.76~6.25A	±3%	150mVp-p	100W	88%
PSSBU99-108		21~27 VDC	3.70~4.76A	±3%	150mVp-p	100W	88%
PSSBU99-109		27~33 VDC	3.03~3.70A	±3%	200mVp-p	100W	88%
PSSBU99-110		33~40 VDC	2.50~3.03A	±3%	200mVp-p	100W	88%
PSSBU99-111		40~48 VDC	2.00~2.50A	±3%	200mVp-p	100W	89%
PSSBU99-112		50~55 VDC	1.81~2.00A	±3%	200mVp-p	100W	89%

## TECHNICAL SPECIFICATIONS: PSSBU99 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	Safety Approvals Input Voltage Range	100		240	VAC
	Operating Input Voltage Range	90		260	
Input Frequency	Sine Wave	47		63	Hz
Input Current	100VAC, full load		1.4		A
	240VAC, full load		0.58		
Inrush Current	100VAC, full load, 25°C, cold start			50	A
	240VAC, full load, 25°C, cold start			120	
No Load Power Consumption	230VAC, no load			0.5	W
Power Factor Correction	240VAC, full load	0.95		1	
OUTPUT SPECIFICATIONS					
Output Voltage		See Table			
Line Regulation <sup>(3)</sup>	Full Load, Vin=100~120VAC			1	%
Load Regulation <sup>(4)</sup>	230VAC, 10~90% Load Change at Condition	1		3	%
Output Power				100	W
Output Current		See Table			
Ripple & Noise <sup>(5)</sup>		See Table			
Hold-Up Time <sup>(6)</sup>	100VAC, Full Load	16			ms
Start-Up Time	100~240VAC, Full Load			1	s
Transient Response Time	110VAC, Full Load			4	ms
Temperature Coefficient	Full Load, Vin=100~240VAC			±0.04	%/°C
PROTECTION					
Over Voltage Protection	Crowbar Mode	112		132	%
Over Load Protection	Recovers Automatically after fault condition is removed	110		150	%
Short Circuit Protection		Automatic Recovery			
GENERAL SPECIFICATIONS					
Efficiency	230VAC, full load	See Table			
Dielectric Withstanding Voltage	Primary to Secondary			4242	VDC
	Primary to PE			2121	
Surge Voltage	Line-Neutral			1	kV
	Line-PE			2	
Safety Leakage Current	240VAC/60Hz			0.75	mA

**TECHNICAL SPECIFICATIONS: PSSBU99 SERIES**

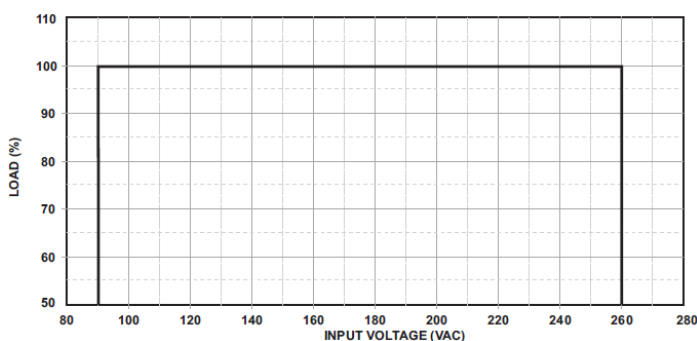
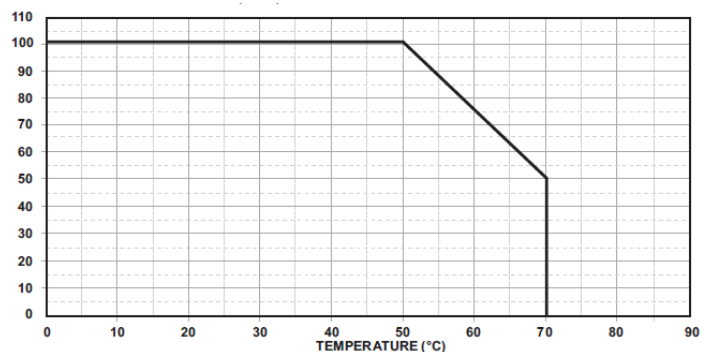
All specifications are based on 25°C, Nominal Input Voltage, and Maximum Output Current unless otherwise noted.  
We reserve the right to change specifications based on technological advances.

SPECIFICATION	TEST CONDITIONS		Min	Typ	Max	Unit
ENVIRONMENTAL SPECIFICATIONS						
Operating Temperature	Derating linearly from 100% Load at 25°C to 50% load at 70°C		0		+70	°C
Storage Temperature	10~95%		-40		+85	°C
Operating Humidity	Non-Condensing		0		95	%
Storage Humidity			0		95	%
Operating Altitude	All Conditions				2000	m
Vibration	10~500Hz, 10min./1cycle, 60min. each along X, Y, Z axes				5	G
Cooling			Free air convection			
MTBF	Operating Temperature at 25°C, MIL-HDBK-217F, 25°C		100,000			hours
PHYSICAL SPECIFICATIONS						
Weight			6.3~8.8oz (180~250g)			
Dimensions (L x W x H)			4.00 x 2.00 x 1.09 inches (138.0 x 87.0 x 44.6 mm)			
Input Connector			Mates with JST housing VHR-3N and JST SVH series crimp terminal			
Output Connector			Mates with JST housing VHR-6N and JST SVH series crimp terminal			
SAFETY & EMC						
Safety Approvals			UL 60950-1:2 <sup>nd</sup> Edition CSA C22.2 No.60950-1-07 IEC60950-1:2005/A2:2013 EN60950-1:2006/A2:2013			
EMC Emission			Compliance to EN55022 (CISPR22)		Class B	
Production Classes					Class I	
Flammability Rating					UL94V-1	
Electrostatic Discharge	IEC61000-4-2	Air Discharge			8	kV
		Contact Discharge			4	

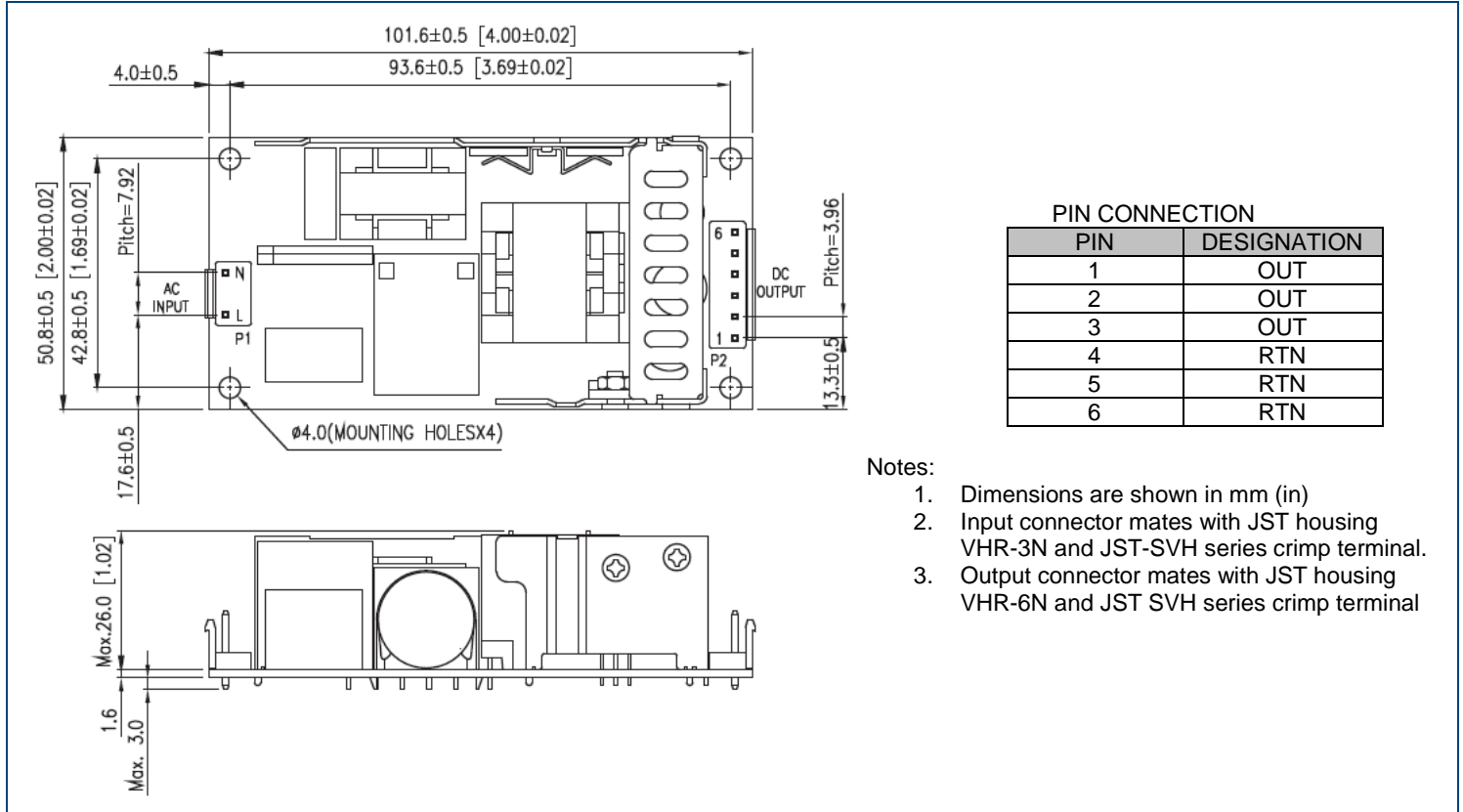
**NOTES**

- Output can provide up to peak load when power supply starts up. Staying in more than rated load continually is prohibited.
- At factory, in 60% rated load, each output is checked to be within voltage accuracy.
- Line regulation is defined by changing  $\pm 10\%$  of input voltage from nominal line at rated load.
- Load regulation is defined by changing  $\pm 40\%$  of measured output load from 60% rated load.
- Ripple & Noise is measured by using 20MHz 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 low limit of main output at rated load and nominal line.

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

**DERATING CURVES**
**Input Voltage Derating Curve**

**Temperature Derating Curve**


## MECHANICAL DRAWING



## 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](mailto:sales@wallindustries.com)  
Web: [www.wallindustries.com](http://www.wallindustries.com)  
Address: 37 Industrial Drive  
Exeter, NH 03833