

## **Wall Industries, Inc.**

### **PSSBU100 SERIES**

**90~260VAC Input Voltage Range**  
**Active Power Factor Correction**  
**Up to 100 Watts, Single Outputs**  
**AC/DC Open Frame Switching Power Supplies**



#### **FEATURES**

- Class I
- Active Power Factor Correction
- 5" x 3" x 1.18" Open Frame Package
- Single Outputs
- RoHS Compliant
- 100% Burn-in Tested
- Internal EMI Filter
- Wide Input Voltage Range: 90~260VAC, 47~63Hz
- Up to 100 Watts Output Power
- Over Voltage Protection (Crowbar Design)
- Input Surge Voltage, Over Voltage, and Over Load Protection
- Meets FCC Part-15 Class B and CISPR-22 Class B Emission Limits
- UL/cUL (UL 60950-1:2<sup>nd</sup> Ed), TUV/Bauart (EN60950-1:2<sup>nd</sup> Ed), and CE Approvals

#### **DESCRIPTION**

The PSSBU100 series of Class I AC/DC switching mode power supplies provides up to 100 Watts of continuous output power in a compact 5" x 3" x 1.18" open frame package. This series has single output models with a wide input voltage range of 90~260VAC. These power supplies have active power factor correction, an internal EMI filter, and input surge voltage, over load, and over voltage protection. All models meet FCC Part-15 Class B and CISPR-22 Class B Emission Limits. This series also has UL/cUL (UL 60950-1:2<sup>nd</sup> Edition) and TUV/Bauart (EN60950-1:2<sup>nd</sup> Edition) safety approvals and meets new CE requirements. All models are RoHS compliant and have been 100% burn-in tested.

## SPECIFICATIONS: PSSBU100 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	Nom	Max	Unit
INPUT SPECIFICATIONS							
Input Voltage Range		Safety Approvals Input Voltage Range		100		240	VAC
		Operating Input Voltage Range		90		260	
Input Frequency				47		63	Hz
Input Current	Low Line	Io = Full Load, Vin = 115VAC				1.6	A
	High Line	Io = Full Load, Vin = 230VAC				0.8	
Inrush Current	Low Line	Io = Full Load, 25°C, Cool Start, Vin = 115VAC			44	50	A
	High Line	Io = Full Load, 25°C, Cool Start, Vin = 230VAC			88	100	
Power Factor Correction (PFC)		Io = Full Load, Vin = 90~260VAC		0.95	0.97	1.0	
OUTPUT SPECIFICATIONS							
Output Voltage Range				See Table			
Load Regulation		Vin = 230VAC			3	5	%
Line Regulation		Io = Full Load			0.5	1	%
Output Power		Vin = 90~260VAC		0		100	W
Output Current Range				See Table			
Ripple & Noise (peak to peak)		< 3.3VDC output models	Full Load, Vin = 90VAC			2	%
		All other outputs			0.5	1	
Transient Response Time		Io = Full Load to Half Load, Vin = 100VAC				4	ms
Hold-Up Time		Io = Full Load, Vin = 110VAC		16			ms
Start-Up Time		Io = Full Load, Vin = 100VAC				2	s
Temperature Coefficient				-0.04		+0.04	%/°C
PROTECTION							
Over Voltage Protection				112		132	%
Over Current Protection				110		150	%
Input Surge Current Protection				yes			
GENERAL SPECIFICATIONS							
Efficiency		Io = Full Load, Vin = 230VAC		70	80	85	%
Dielectric Withstanding Voltage		Primary to Secondary		4242			VDC
		Primary to Ground		2121			
Isolation Resistance		Test Voltage = 500VDC		50			MΩ
Safety Ground Leakage Current		Io = Full Load, Vin = 240VAC			0.5	0.75	mA
ENVIRONMENTAL SPECIFICATIONS							
Operating Temperature		Derate linearly from 100% Load at 50°C to 50% load at 70°C		0	50	+70	°C
Storage Temperature				-40		+85	°C
Operating Humidity				0		95	%
Storage Humidity				0		95	%
MTBF		Operating Temperature at 25°C, calculated per MIL-HDBK-217F		100,000 hours			
PHYSICAL SPECIFICATIONS							
Weight				Approximately 12.2oz (345g)			
Dimensions (L x W x H)				5.00 x 3.00 x 1.18 inches (127.0 x 76.3 x 30.0 mm)			
SAFETY & EMI							
EMI Requirements for CISPR-22		Vin = 220VAC		B			Class
EMI Requirements for FCC PART-15		Vin = 110VAC		B			Class
Safety Approvals		UL/cUL (UL 60950-1:2 <sup>nd</sup> Edition), TUV/Bauart (EN60950-1:2 <sup>nd</sup> Edition), CE					

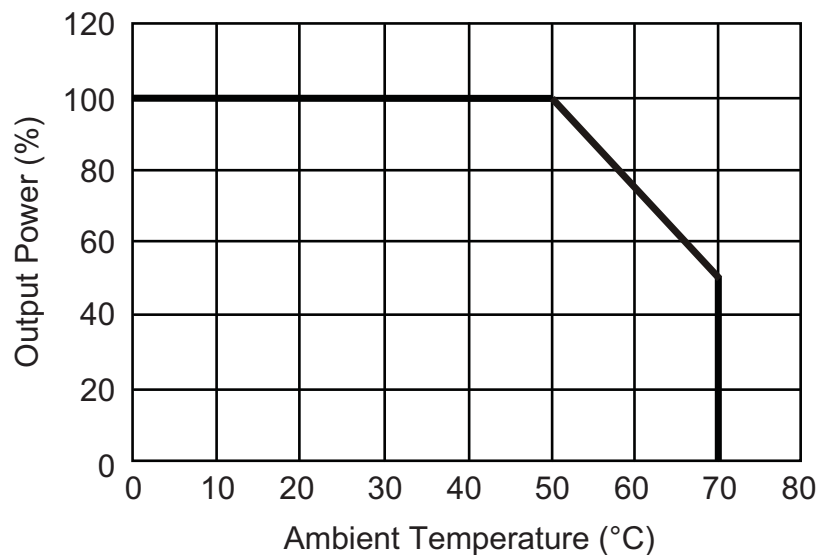
**MODEL SELECTION TABLE**

Model Number	Input Voltage Range	Output Voltage Range	Output Current Range	Total Regulation	Maximum Output Power
PSSBU100-101	90 ~ 260VAC	3 ~ 5 VDC	18.00 ~ 10.80 A	5%	54W
PSSBU100-102		5 ~ 6 VDC	14.00 ~ 11.66 A	5%	70W
PSSBU100-103		6 ~ 9 VDC	13.33 ~ 8.88 A	5%	80W
PSSBU100-104		9 ~ 11 VDC	11.11 ~ 9.09 A	5%	100W
PSSBU100-105		11 ~ 13 VDC	9.09 ~ 7.69 A	3%	100W
PSSBU100-106		13 ~ 16 VDC	7.69 ~ 6.25 A	3%	100W
PSSBU100-107		16 ~ 21 VDC	6.25 ~ 4.76 A	3%	100W
PSSBU100-108		21 ~ 27 VDC	4.76 ~ 3.70 A	2%	100W
PSSBU100-109		27 ~ 33 VDC	3.70 ~ 3.03 A	2%	100W
PSSBU100-110		33 ~ 40 VDC	3.03 ~ 2.50 A	2%	100W
PSSBU100-111		40 ~ 50 VDC	2.50 ~ 2.00 A	2%	100W

## NOTES

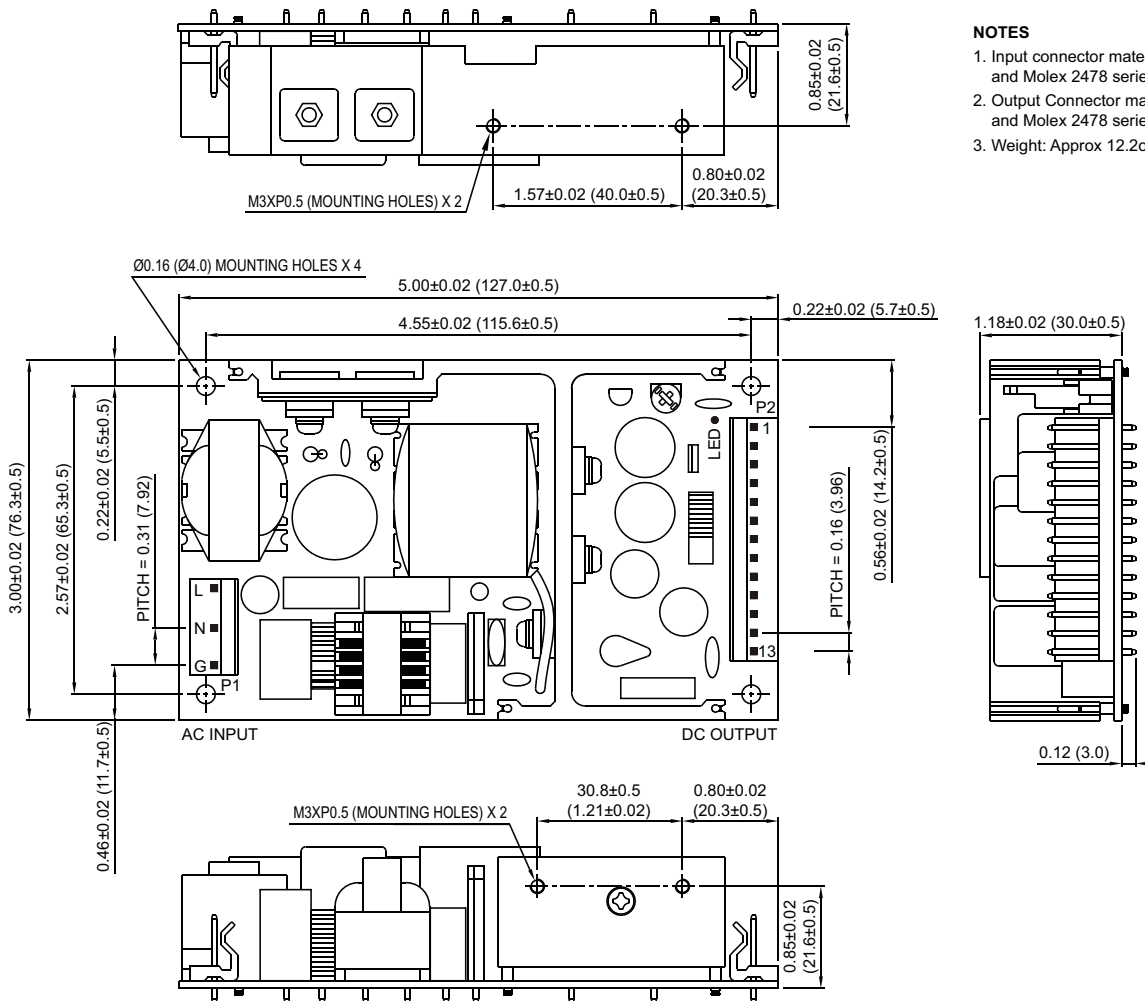
1. For single output models the output voltage is specified as a range (Ex: 40~50VDC); the customer must specify what they would like the output voltage set at. Please contact factory for ordering details.
2. Input connector mates with Molex housing 09-50-3051 and Molex 2478 series crimp terminal.
3. Output connector mates with Molex housing 09-50-3131 and Molex 2478 series crimp terminal.

## DERATING CURVE



## MECHANICAL DRAWING

Unit: inches (mm)



### NOTES

1. Input connector mates with Molex housing 09-50-3051 and Molex 2478 series crimp terminal
2. Output Connector mates with Molex housing 09-50-3131 and Molex 2478 series crimp terminal
3. Weight: Approx 12.2oz (345g)

PIN CONNECTIONS	
Pin	Assignment
1	OUT
2	OUT
3	OUT
4	OUT
5	OUT
6	OUT
7	RTN
8	RTN
9	RTN
10	RTN
11	RTN
12	RTN
13	N/C

## 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: 5 Watson Brook Rd.  
 Exeter, NH 03833