Size: 4.02in x 1.50in x 0.83in (102mm x 38.1mm x 21mm)

FEATURES

- Wide Operating Voltage Range of 80~275VAC
- Input to Output: 2MOPP
- RoHS2 Compliant
- High ESD Immunity
- Over Load and Short Circuit Protection
- Supports Risk Management Process
- IEC60601-1 Edition 3.1, ES60601-1:2005 (R2012), CSAC22.2 No. 60601-1:14, and EN60601-1: 2006/A1:2013 Safety Approvals

APPLICATIONS

- Breathing Therapy Device
- Blood Pressure System
- Portable Medical Devices
- ECG, EEG
- Medical Tablet

DESCRIPTION

The PSMHBU32 series of AC/DC medical open frame power supplies offers up to 30 watts of output power in a 4.02” x 1.50” x 0.83” package. This series consists of single output models with a wide operating voltage range of 80~275VAC and high ESD immunity. Each model in this series is RoHS2 compliant, has over load and short circuit protection, and supports risk management process. This series has IEC60601-1 edition 3.1, ES60601-1:2005 (R2012), CSAC22.2 No. 60601-1:14, and EN60601-1: 2006/A1:2013 safety approvals Please contact factory for order details.

MODEL SELECTION TABLE

Model Number	Input Voltage Range	Output Voltage	Output Current		Ripple & Noise	Output Power	Efficiency
			Min Load	Max Load			
PSMHBU32-102	80~275VAC	5-6VDC	3.33A	4A	50mVp-p	20W	74%
PSMHBU32-103		6-8VDC	2.87A	3.83A	70mVp-p	23W	77%
PSMHBU32-104		8-11VDC	2.45A	3.37A	90mVp-p	27W	78%
PSMHBU32-105		11-13VDC	2.31A	2.72A	100mVp-p	30W	83%
PSMHBU32-106		13-16VDC	1.88A	2.31A	100mVp-p	30W	84%
PSMHBU32-107		16-21VDC	1.43A	1.88A	100mVp-p	30W	85%
PSMHBU32-108		21-27VDC	1.12A	1.43A	100mVp-p	30W	86%
PSMHBU32-109		27-33VDC	0.91A	1.12A	100mVp-p	30W	86%
PSMHBU32-110		33-40VDC	0.76A	0.91A	100mVp-p	30W	86%

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	Safety Approval Range	100		240	VAC
	Operate Voltage Range(1)	80		275	
Input Frequency	Sine Wave	47		63	Hz
Input Current	Low Line, Full Load, Vin=100VAC			0.7	A
	High Line, Full Load, Vin=240VAC			0.4	
Inrush Current	Low Line, Full Load, 25ºC, Vin=100VAC			25	A
	High Line, Full Load, 25ºC, Vin=240VAC			50	
OUTPUT SPECIFICATIONS					
Output Voltage		See Table			
Line Regulation(4)	Full Load, Vin=100~120VAC, or 200~240VAC			1	%
Total Regulation(5)	PSMHBU32-102 through PSMHBU32-107		±5		%
	PSMHBU32-108 through PSMHBU32-110		±3		
Output Power		See Table			
Output Current		See Table			
Ripple & Noise(6)		See Table			
Transient Response Time	Full Load, Vin=110VAC			4	mS
Start-Up Time	Full Load, Vin=100~240VAC			2	S
Hold-Up Time(7)	Full Load, Vin=110VAC		12		mS
Temperature Coefficient	All Condition			±0.04	%/ºC
PROTECTION					
Short Circuit Protection		Automatic Recovery			
Over Load Protection	Recovers automatically after fault condition is removed	110		150	%

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
ENVIRONMENTAL SPECIFICATIONS					
Operating Temperature	Derate linearly from 100% load at 40ºC to 50% load at 70ºC	-10		70	ºC
Storage Temperature	10~95% RH	-40		85	ºC
Operating Humidity	Non-Condensing	0		95	%RH
Storage Humidity		0		95	%RH
Operating Altitude	All Conditions			3000	
Vibration	10~500Hz, 10min./1cycle, 60 min. Each along X, Y, Z axes			5	G
Cooling		Free Air Convection			
MTBF	Operating temperature at 25ºC, per MIL-HDBK-217F	100,000			Hours
GENERAL SPECIFICATIONS					
Efficiency	Full Load, Vin=230VAC	See Chart			
Dielectric Withstanding Voltage	Primary to Secondary, limit current <10mA			4000	VAC
Surge Voltage	Line-Neutral			1	kV
	Line-PE & Neutral-PE			2	
Flammability Rating		UL94V-1			
PHYSICAL SPECIFICATIONS					
Weight		3oz (85g)			
Dimensions (L x W x H)		4.02in x 1.50in x 0.83in (102mm x 38.1mm x 21mm)			
SAFETY CHARACTERISTICS					
Safety Approvals	IEC60601-1 Edition 3.1, ES60601-1:2005 (R2012), CSAC22.2 No.60601-1:14, EN60601-1:2006/A1:2013				
EMC Emission	Compliance to EN55011 (CISPR11), EN60601-1-2				Class B
Electro Static Discharge	Air Discharge, IEC61000-4-2			15	kV
	Contact Discharge, IEC61000-4-2			8	
Protection Classes		Double Insulated, Class II			

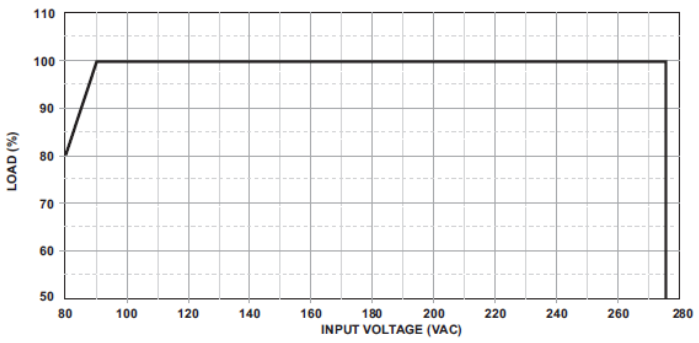
NOTES

1. Derate linearly from 100% load at 90VAC to 80% load at 80VAC.
2. Output can provide up to peak load when the power supply starts up. Continually staying in more than rated load is not allowed.
3. At factory, in 60% rated load condition, each output is checked to be within voltage accuracy.
4. Line regulation is defined by changing ±10% of input voltage from nominal line at rated load.
5. Load regulation is defined by changing ±40% of measured output load from 60% rated load.
6. 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.
7. 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.

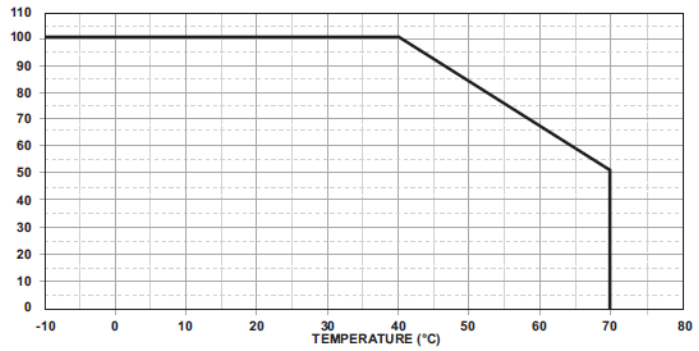
**Due to advances in technology, specifications subject to change without notice.*

DERATING CURVES

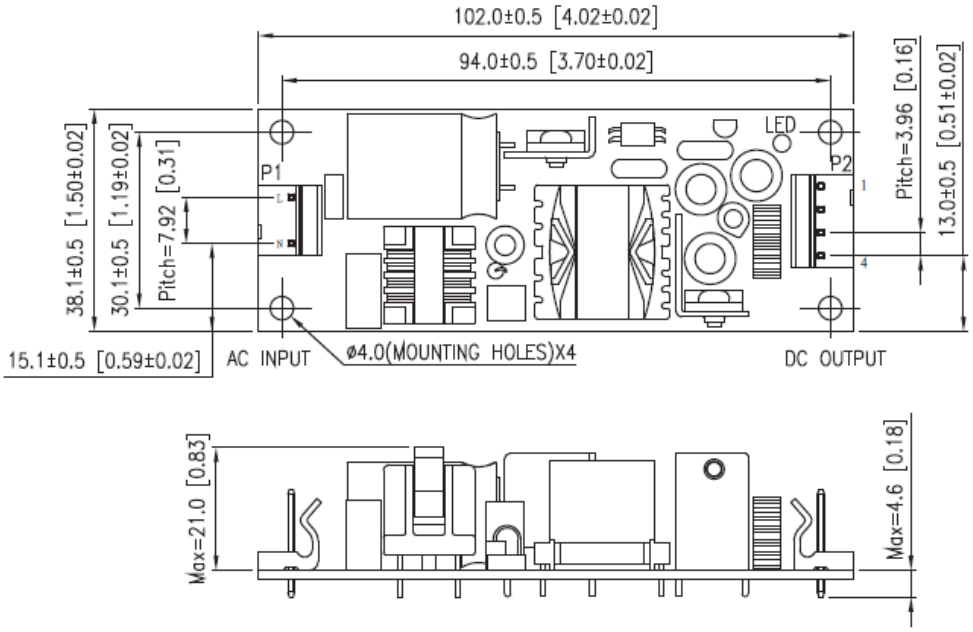
Input Voltage Derating Curve



Temperature Derating Curve



MECHANICAL DRAWINGS



PIN CHART

PIN	DEFINITION
1	Vout
2	Vout
3	RTN
4	RTN

Input Connector mates with Molex housing 09-50-3031 and Molex 2478 series crimp terminal.
Output Connector mates with Molex hosing 09-50-3041 and Molex 2478 series crimp terminal.

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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