

Size:
4.00 x 1.99 x 1.16 inches
101.5 x 50.5 x 29.5 mm

Weight:
7.05oz (200g)

FEATURES

- Class I
- RoHS Compliant
- Internal EMI Filter
- Single Output
- 30 Watts Output Power
- Input to Output: 2MOPP
- Up to 85% High Efficiency
- Wide Input Voltage Range: 90~264VAC, 47~63Hz
- Over Voltage & Over Load Protection
- Output Voltage Protection (Crowbar Design)
- Meets FCC Part-18 Class B & CISPR-11 EN55011 Class B Emission Limits
- ANSI/AAMI ES 60601-1: 2005 (UL/cUL 3rd Edition) & EN 60601-1: 2006 (TUV/T-mark 3rd Edition)
- 100% Burn-in Tested

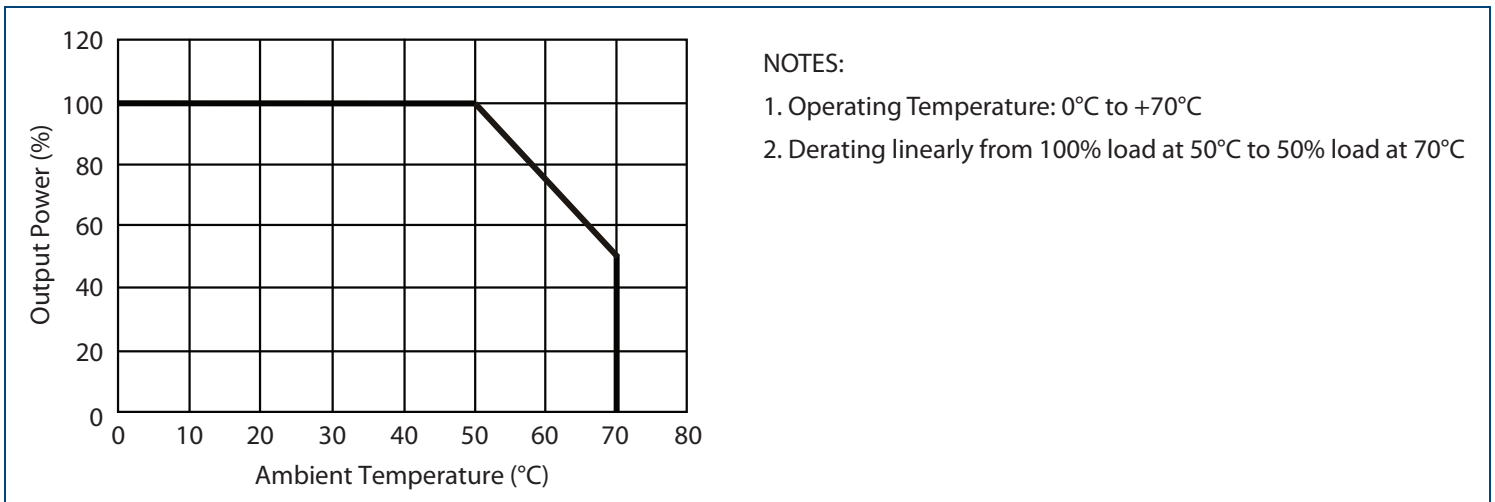
DESCRIPTION

The PSMBU31 series of class I medical AC/DC switching power supplies provides 30 Watts of continuous output power in a 4.00" x 1.99" x 1.16" open frame package. This series consists of single output models with a wide input voltage range of 90~264VAC. Some features include high efficiency up to 85%, internal EMI filter, 2MOPP insulation, and over load and over voltage protection. All models meet FCC Part-18 class B and CISPR-11 EN55011 class B emission limits. This series also has ANSI/AAMI ES 60601-1: 2005 (UL/cUL 3rd edition) and EN 60601-1: 2006 (TUV/T-mark 3rd edition) medical approvals. All models are RoHS compliant and have been 100% burn-in tested.

MODEL SELECTION TABLE

Model Number	Input Voltage Range	Output Voltage	Output Current	Ripple & Noise	Total Regulation	Output Power
PSMBU31-102	90 ~ 264 VAC	5 VDC	6000mA	50mVp-p	5%	30W
PSMBU31-103		7 VDC	4280mA	70mVp-p	5%	30W
PSMBU31-104		9 VDC	3330mA	90mVp-p	5%	30W
PSMBU31-105		12 VDC	2500mA	120mVp-p	5%	30W
PSMBU31-106		15 VDC	2000mA	150mVp-p	5%	30W
PSMBU31-107		18 VDC	1660mA	180mVp-p	5%	30W
PSMBU31-108		24 VDC	1250mA	240mVp-p	3%	30W
PSMBU31-109		30 VDC	1000mA	300mVp-p	3%	30W
PSMBU31-110		36 VDC	830mA	360mVp-p	3%	30W

DERATING



NOTES:

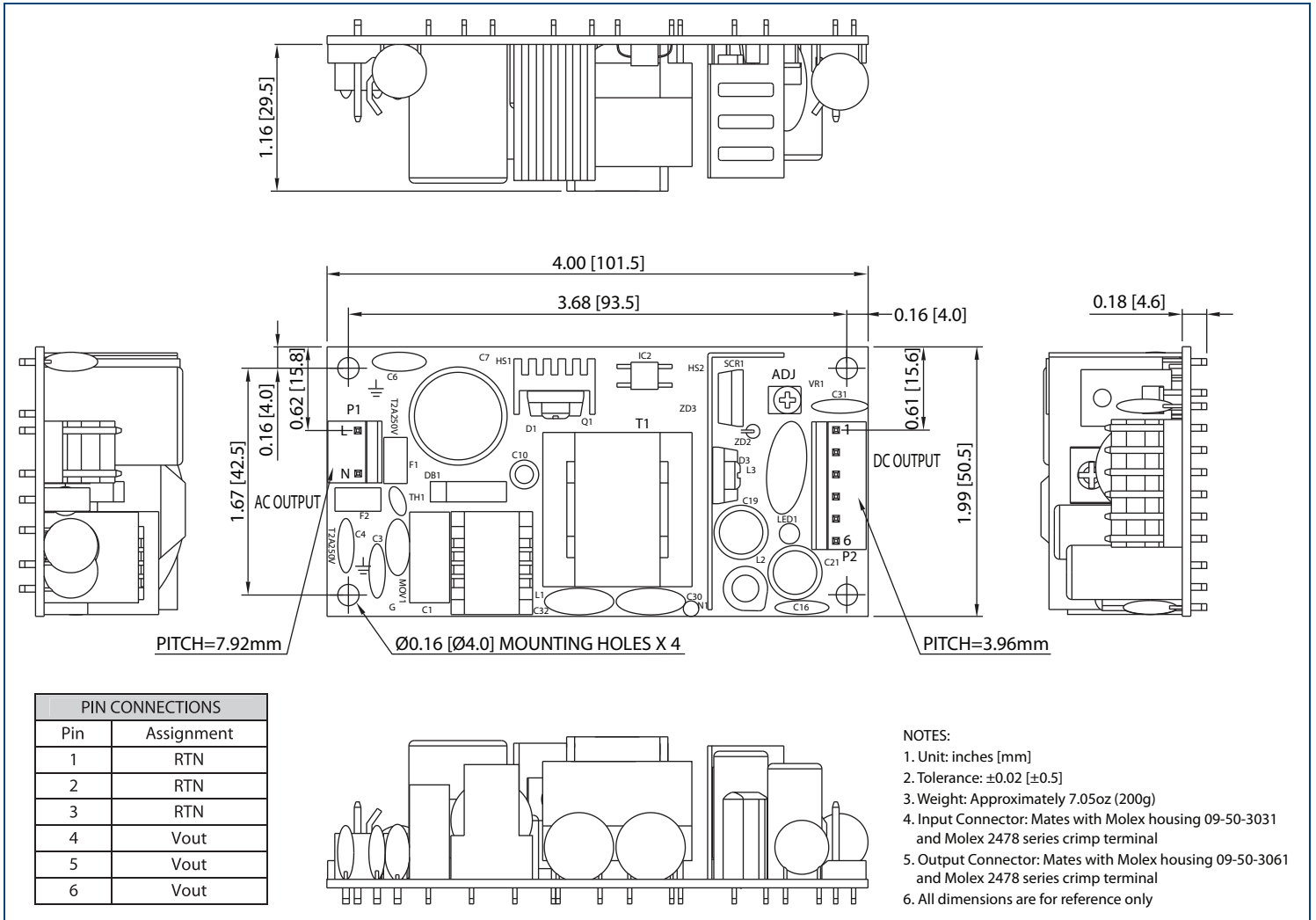
1. Operating Temperature: 0°C to +70°C
2. Derating linearly from 100% load at 50°C to 50% load at 70°C

SPECIFICATIONS: PSMBU31 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		264	
Input Frequency		47		63	Hz
Input Current	100VAC, full load		0.7		A
	240VAC, full load		0.3		
Inrush Current	115VAC, full load, 25°C, cold start			15	A
	230VAC, full load, 25°C, cold start			30	
No Load Power Consumption	230VAC, no load			0.5	W
OUTPUT SPECIFICATIONS					
Output Voltage		See Table			
Line Regulation	LL to HL, full load			1	%
Load Regulation	230VAC			5	%
Output Power				30	W
Output Current		See Table			
Ripple & Noise (peak to peak)	90VAC, full load			1	%
Hold-up Time	110VAC, full load	10			ms
Start-up Time	100VAC, full load	0.3		2	s
Transient Response Time	100VAC, Full load to half load			4	ms
Temperature Coefficient	0~50°C	-0.04		+0.04	%/°C
PROTECTION					
Over Voltage Protection		112		132	%
Over Current Protection		110		150	%
GENERAL SPECIFICATIONS					
Efficiency	230VAC, full load	76.4		85	%
Dielectric Withstanding Voltage	Primary to Secondary (2MOPP Insulation)	6578			VDC
	Primary to PE	2121			
Isolation Resistance	Test Voltage = 500VDC	50			MΩ
Leakage Current	240VAC/60Hz			0.1	mA
ENVIRONMENTAL SPECIFICATIONS					
Operating Temperature	Derating linearly from 100% Load at 50°C to 50% load at 70°C	0		+70	°C
Storage Temperature		-40		+85	°C
Operating Humidity		0		95	%
Storage Humidity		0		95	%
Operating Altitude				3000	m
Cooling		Free air convection			
MTBF	MIL-HDBK-217F, 25°C	100,000			hours
PHYSICAL SPECIFICATIONS					
Weight		7.05oz (200g)			
Dimensions (L x W x H)		4.00 x 1.99 x 1.16 inch (101.5 x 50.5 x 29.5 mm)			
Input Connector		Mates with Molex housing 09-50-3031 and Molex 2478 series crimp terminal			
Output Connector		Mates with Molex housing 09-50-3061 and Molex 2478 series crimp terminal			
SAFETY & EMC					
Safety Approvals		ANSI/AAMI ES 60601-1: 2005 (UL/cUL 3rd edition); EN 60601-1:2006 (TUV/T-mark 3rd edition); CE			
EMI Requirements for CISPR-11	220VAC	B			Class
EMI Requirements for FCC PART-18	110VAC	B			Class

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.

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