



Size: 5.00 x 3.00 x 1.46 inches  
(127.0 x 76.2 x 37.1 mm)

**FEATURES**

- Class I
- RoHS Compliant
- Active Power Factor Correction
- Flammability Rating of UL94V-1
- 12VDC & 24VDC Single Outputs
- 150 Watts Output Power
- Input to Output: 2MOPP
- Up to 86% High Efficiency
- Wide Input Voltage Range: 90~260VAC, 47~63Hz
- Short Circuit, Over Voltage, & Over Load Protection
- Meets FCC Part-18, CISPR-11, and EN55011 Class B Emission Limits
- IEC60601-1 Edition 3.1, ES60601-1:2005(R2012), CSAC22.2 NO. 60601-1:14, and EN60601-1:2006/A1:2013 Safety Approvals
- 100% Burn-in Tested

**DESCRIPTION**

The PSMBU152 series of class I medical AC/DC switching power supplies provides 150 Watts of continuous output power in a 5.00" x 3.00" x 1.46" open frame package. This series consists of 12VDC and 24VDC single output models with a wide input voltage range of 90~260VAC. Some features include high efficiency up to 89%, active power factor correction, 2MOPP insulation, and short circuit, over current and over load protection. All models meet FCC Part-18, CISPR-11, and EN55011 Class B class B emission limits. This series also has IEC60601-1 Edition 3.1, ES60601-1:2005(R2012), CSAC22.2 NO. 60601-1:14, and EN60601-1:2006/A1:2013 safety approvals. All models are RoHS compliant and have been 100% burn-in tested.

**SPECIFICATIONS: PSMBU152 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
<b>INPUT SPECIFICATIONS</b>					
Input Voltage	Safety Approvals Input Voltage Range	100		240	VAC
	Operating Input Voltage Range	90		260	
Input Frequency		47		63	Hz
Input Current	Low Line, 100VAC, full load	1.74	1.76		A
	High Line, 240VAC, full load	0.71	0.73		
Inrush Current	Low Line, 100VAC, full load, 25°C, cold start			50	A
	High Line, 240VAC, full load, 25°C, cold start			100	
No Load Power Consumption	230VAC, no load			1.2	W
Power Factor Correction	240VAC, full load	0.95		1	
<b>OUTPUT SPECIFICATIONS</b>					
Output Voltage		See Table			
Line Regulation <sup>(3)</sup>	Full load, Vin=100~120VAC or 200~240VAC	0.5		1	%
Total Regulation <sup>(4)</sup>	12VDC Model		±5		%
	24VDC Model		±3		
Output Power				150	W
Output Current		See Table			
Ripple & Noise <sup>(5)</sup>		See Table			
Hold-up Time <sup>(6)</sup>	110VAC, full load	20			ms
Start-up Time	100~240VAC, full load			3	s
Transient Response Time	110VAC, Full load to half load			4	ms
Temperature Coefficient	0~50°C	-0.04		+0.04	%/°C
<b>PROTECTION</b>					
Over Voltage Protection		112		132	%
Over Load Protection	Recovers automatically after fault condition is removed	110		150	%
Short Circuit Protection		Automatic Recovery			
<b>GENERAL SPECIFICATIONS</b>					
Efficiency	230VAC, full load	See Table			
Dielectric Withstanding Voltage	Primary to Secondary (Limit Current <10mA)			4000	VAC
	Primary to PE (Limit Current <10mA)			1500	
Insulation Resistance	Primary to Secondary, 500VDC, 25°C/70% RH	50			MΩ
Safety Ground Leakage Current	240VAC/60Hz			0.1	mA
<b>ENVIRONMENTAL SPECIFICATIONS</b>					
Operating Temperature	Derating linearly from 100% Load at 50°C to 50% load at 70°C	-10		+70	°C
Storage Temperature		-40		+85	°C
Operating Humidity	Non-Condensing	0		95	%
Storage Humidity		0		95	%
Operating Altitude				3000	m
Cooling		Free air convection			
MTBF	MIL-HDBK-217F, 25°C	200,000			hours
<b>PHYSICAL SPECIFICATIONS</b>					
Weight		14.82oz (420g)			
Dimensions (L x W x H)		5.00 x 3.00 x 1.46 inches (127.0 x 76.2 x 37.1 mm)			
<b>SAFETY &amp; EMC</b>					
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			
		B			Class
Electro Static Discharge	Air Discharge, IEC61000-4-2			15	kV
	Contact Discharge, IEC61000-4-2			8	

**MODEL SELECTION TABLE**

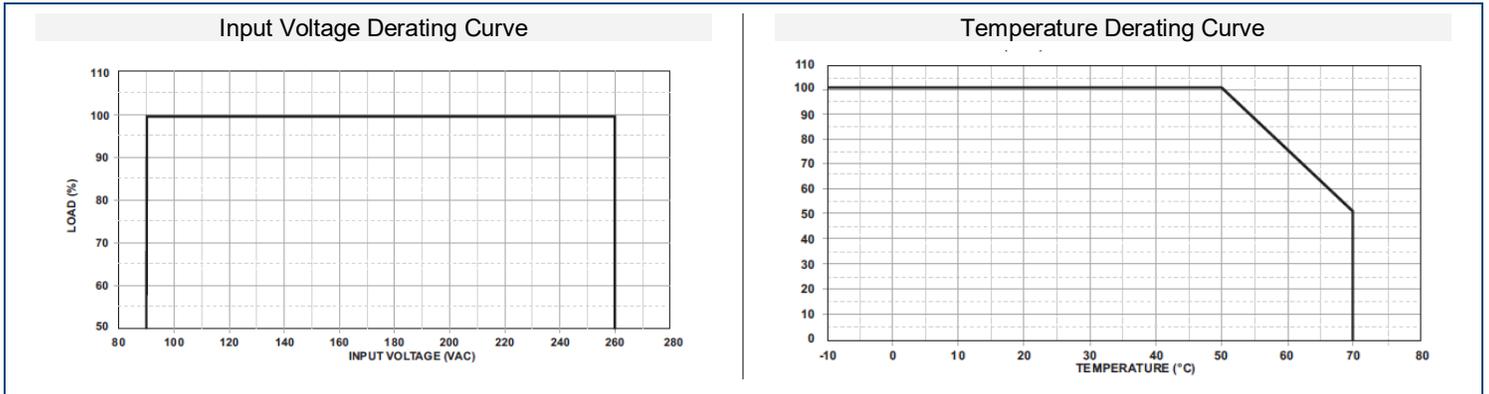
Model Number	Input Voltage Range	Output Voltage	Output Current	Ripple & Noise	Efficiency	Total Regulation	Output Power
PSMBU152-105	90 ~ 260 VAC	12 VDC	12.5A	100mVp-p	84%	±5%	150W
PSMBU152-108		24 VDC	6.25A	100mVp-p	86%	±3%	150W

**NOTES**

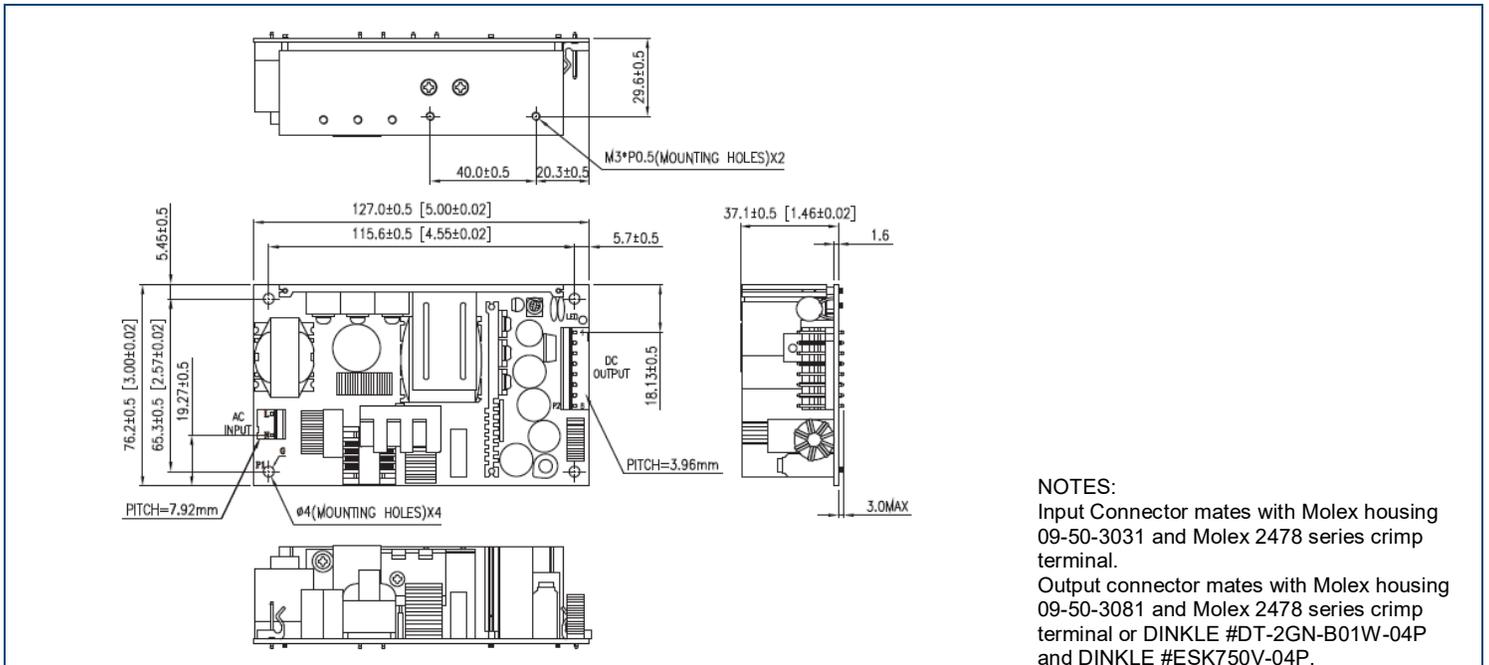
1. Output can provide up to peak load when power supply starts up. Staying in more than rated load continually is not allowed.
2. At factory in 60% rated load condition, each output is checked to be within voltage accuracy.
3. Line regulation is defined by changing ±10% of input voltage from nominal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



**MECHANICAL DRAWING**



- NOTES:**
- Input Connector mates with Molex housing 09-50-3031 and Molex 2478 series crimp terminal.
  - Output connector mates with Molex housing 09-50-3081 and Molex 2478 series crimp terminal or DINKLE #DT-2GN-B01W-04P and DINKLE #ESK750V-04P.

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## 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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