



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 |
|-------------------------------------|--|--|------|-------|-------|
| INPUT SPECIFICATIONS | | | | | |
| 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 | |
| OUTPUT SPECIFICATIONS | | | | | |
| Output Voltage | | See Table | | | |
| Line Regulation ⁽³⁾ | Full load, Vin=100–120VAC or 200–240VAC | 0.5 | | 1 | % |
| Total Regulation ⁽⁴⁾ | 12VDC Model | | ±5 | | % |
| | 24VDC Model | | ±3 | | |
| Output Power | | | | 150 | W |
| Output Current | | See Table | | | |
| Ripple & Noise ⁽⁵⁾ | | See Table | | | |
| Hold-up Time ⁽⁶⁾ | 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 |
| PROTECTION | | | | | |
| Over Voltage Protection | | 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 (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 |
| ENVIRONMENTAL SPECIFICATIONS | | | | | |
| Operating Temperature | Derating linearly from 100% Load at 50°C to 50% load at 70°C | -10 | | +70 | °C |
| Storage Temperature | 10–95% RH | -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 |
| PHYSICAL SPECIFICATIONS | | | | | |
| 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) | | | |
| SAFETY & EMC | | | | | |
| 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 | | | |
| Electro Static Discharge | Air Discharge, IEC61000-4-2 | B | | 15 | Class |
| | Contact Discharge, IEC61000-4-2 | | | 8 | kV |

MODEL SELECTION TABLE

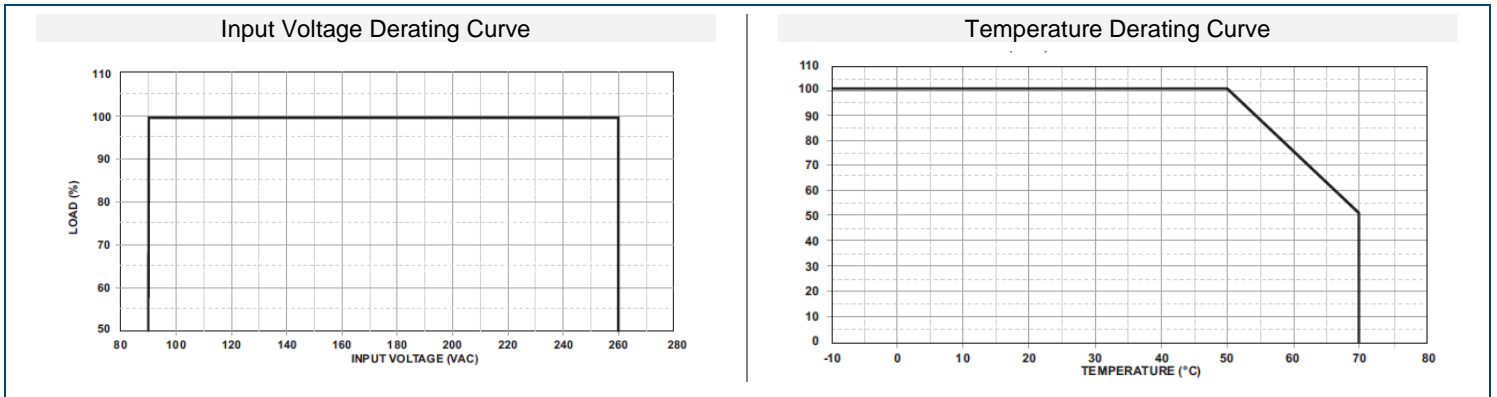
| Model Number | Input Voltage Range | Output Voltage | Output Current | Ripple & Noise | Efficiency | Total Regulation | Output Power |
|--------------|---------------------|----------------|----------------|----------------|------------|------------------|--------------|
| PSMBU152-105 | 90 ~ 260 VAC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

NOTES

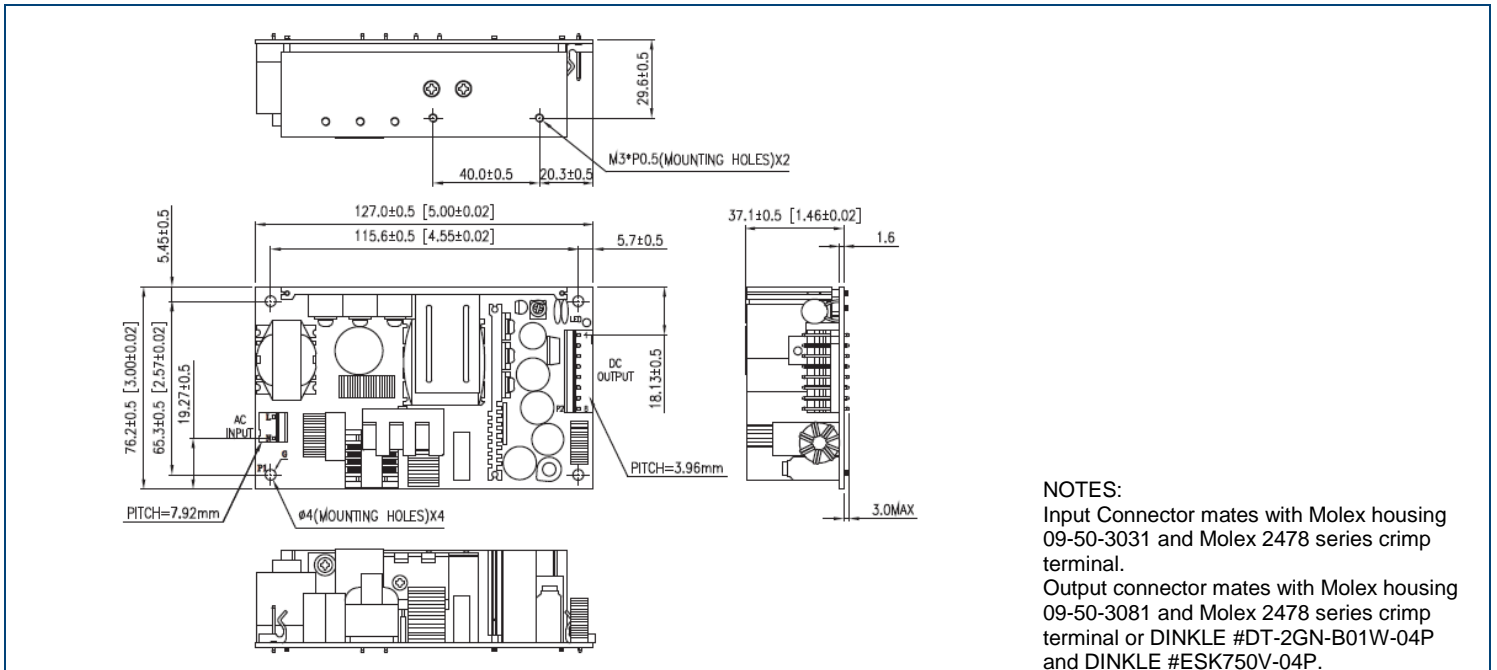
1. Output can provide up to peak load when power supply starts up. Staying in more than rated load continually is not allowed.
2. At factory in 60% rated load condition, each output is checked to be within voltage accuracy.
3. Line regulation is defined by changing ±10% of input voltage from nominal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

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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