



Size: 3.17in x 2in x 0.95in (80.5mm x 50.8mm x 24mm)

**FEATURES**

- Input Voltage Range of 90-264VAC
- Design for BF Application
- Meets 2 X MOPP and Contact Leakage < 100uA
- High Mechanical Torque Start-Up
- Safety Class II & EMI Class B
- High Efficiency up to 89%
- Follow ErP Directive of EU
- Convection Cooling for Rated Load
- Forced air for Max. Load
- Over Load, Short Circuit, Over Voltage Protection
- UL/CSA/EN60950-1, 2<sup>nd</sup> Edition and ANSI/AMMI/CSA/EN60601-1, 3.1 Edition

**DESCRIPTION**

The PSSNP-HF6 series of AC/DC medical open frame power supplies offers rated output power of 60 watts, a max output power of 72 watts, and a peak output power of 96 watts in a 3.17" x 2" x 0.95" package. This series consists of single output models with a wide input voltage range of 90-264VAC. Each model in this series has high mechanical torque start-up as well as over load, short circuit, and over voltage protection. This series has UL/CSA/EN60950-1, 2<sup>nd</sup> Edition and ANSI/AMMI/CSA/EN60601-1, 3.1 edition safety approvals. Please call factory for order details.

**MODEL SELECTION TABLE**

| Model Number <sup>(1)</sup>              | Input Voltage Range | Output Voltage | Output Current |       |       |       | Initial Accuracy | Output Power |      |      | Step Efficiency |          |           | Average Efficiency |
|--|---------------------|----------------|----------------|-------|-------|-------|------------------|--------------|------|------|-----------------|----------|-----------|--------------------|
|  |                     |                | Min            | Rated | Max.  | Peak  |                  | Rated        | Max. | Peak | 20% Load        | 50% Load | 100% Load |                    |
| PSSNP-HF67<br>PSSNP-HF67A                | 90-264VAC           | 12V            | 0A             | 5A    | 6.67A | 7.5A  | 11.8~12.2V       | 60W          | 72W  | 96W  | 88%             | 89%      | 86%       | 87%                |
| PSSNP-HF68<br>PSSNP-HF68A                |                     | 15V            | 0A             | 4A    | 5.33A | 6A    | 14.8~15.2V       | 60W          | 72W  | 96W  | 78%             | 83%      | 84%       | 82%                |
| PSSNP-HF69<br>PSSNP-HF69A                |                     | 24V            | 0A             | 2.5A  | 3.33A | 3.75A | 23.8~24.2V       | 60W          | 72W  | 96W  | 75%             | 85%      | 85%       | 82%                |
| PSSNP-HF6T<br>PSSNP-HF6TA <sup>(2)</sup> |                     | 48V            | 0A             | 1.25A | 1.67A | 1.88A | 47.5~48.5V       | 60W          | 72W  | 96W  | 88%             | 89%      | 86%       | 87%                |
|  |                     |                |                |       |       |       |                  |              |      |      |                 | 79%      | 84%       | 87%                |

**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 |
|-------------------------------------|--------------------------|-----|-------|--------------------|------|
| <b>INPUT SPECIFICATIONS</b>         |                          |     |       |                    |      |
| Input Voltage Range                 |                          | 90  |       | 264                | VAC  |
| Input Frequency                     |                          | 47  |       | 63                 | Hz   |
| Inrush Current                      | @115VAC                  |     |       | 30                 | A    |
|                                     | @230VAC                  |     |       | 60                 |      |
| <b>OUTPUT SPECIFICATIONS</b>        |                          |     |       |                    |      |
| Output Voltage                      |                          |     |       | See Table          |      |
| Voltage Accuracy                    |                          |     |       | See Table          |      |
| Output Power                        |                          |     |       | See Table          |      |
| Output Current                      |                          |     |       | See Table          |      |
| Hold-Up Time                        |                          |     | 16    |                    | ms   |
| <b>PROTECTION</b>                   |                          |     |       |                    |      |
| Short Circuit Protection            |                          |     |       | Automatic Recovery |      |
| Over Load Protection                |                          |     |       | Automatic Recovery |      |
| Over Voltage Protection             |                          |     |       | Latch Off          |      |
| <b>ENVIRONMENTAL SPECIFICATIONS</b> |                          |     |       |                    |      |
| Operating Case Temperature          | Derating: 2.5%/°C > 50°C | -40 |       | +70                | °C   |
| Storage Temperature                 |                          | -40 |       | +85                | °C   |
| Operating Altitude                  |                          |     | 5,000 |                    | M    |
| Cooling                             | Rated Load               |     |       | Convection Cooling |      |
|                                     | Max. Load                |     |       | Forced Air         |      |

**SPECIFICATIONS**

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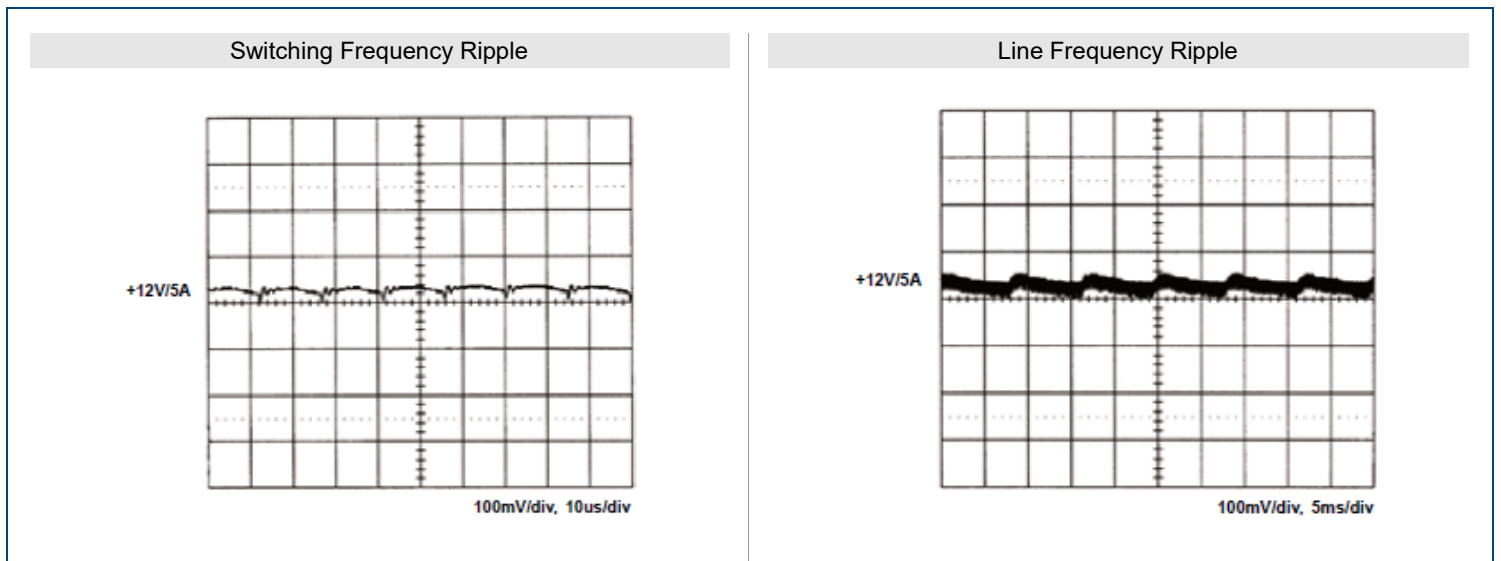
| SPECIFICATION                  | TEST CONDITIONS    | Min  | Typ   | Max | Unit |
|--------------------------------|--------------------|--|---|-----|------|
| <b>GENERAL SPECIFICATIONS</b>  |                    |  |   |     |      |
| Efficiency                     |                    |  | See Table   |     |      |
| Isolation Grade                | Primary←→Ground    |  | 1MOPP(1500VAC)                                      |     |      |
|                                | Primary←→Secondary |  | 2MOPP(4000VAC)                                      |     |      |
|                                | Secondary←→Ground  |  | 1MOPP(1500VAC)                                      |     |      |
| Leakage Current                | Earth Leakage      |  |   | 300 | uA   |
|                                | Touch Current      |  |   | 100 |      |
| <b>PHYSICAL SPECIFICATIONS</b> |                    |  |   |     |      |
| Weight                         |                    |  | 4.02oz (114g)                                       |     |      |
| Dimensions (L x W x H)         |                    |  | 3.17in x 2in x 0.95in<br>(80.5mm x 50.8mm x 24.0mm) |     |      |
| <b>SAFETY CHARACTERISTICS</b>  |                    |  |   |     |      |
| Safety Approvals               |                    | UL/CSA/EN60950-1, 2 <sup>nd</sup> Edition <sup>(7)</sup><br>ANSI/AMMI/CSA/EN60601-1, 3.1 Edition<br>CB Report<br>CE Mark<br>RM Report/File |   |     |      |
| EMI <sup>(6)</sup>             |                    | EN55011 "B", EN61000-3-3   |   |     |      |
| Harmonics                      |                    | EN61000-3-2  |   |     |      |
| EMS                            |                    | EN61000-4-2, 3, 4, 5, 6, 8, 11   |   |     |      |
| Energy Saving                  |                    | Energy Star 6.0 For computers and displays<br>ErP Regulation EC(No) 1275/2008  |   |     |      |

**NOTES**

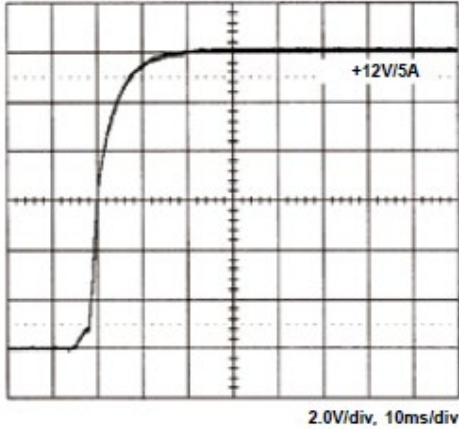
- Most of the power supplies will create audible burst sound at light load, if the application wants to meet input power <0.5W at standby mode. PSSNP-HF6x is for ITE & Medical applications which require standby mode. PSSNP-HF6xA is for ITE & Medical applications but without burst sound and no standby mode.
- The safety application will be proceeded upon request.
- Standby power consumption with system: for computers and displays, Energy Star in U.S. and ErP regulation in Europe require the input power to be less than 0.5W at standby mode.
- Output Load: 60W for convection cooling; 72W for forced air cooling
- Peak load duration: Peak 96W can last for 5 sec.
- EMI Grounding: If there is a metal sheet under the power supply, connect the EMI ground to that metal sheet.
- This product is Listed to applicable standards and requirements by UL.

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

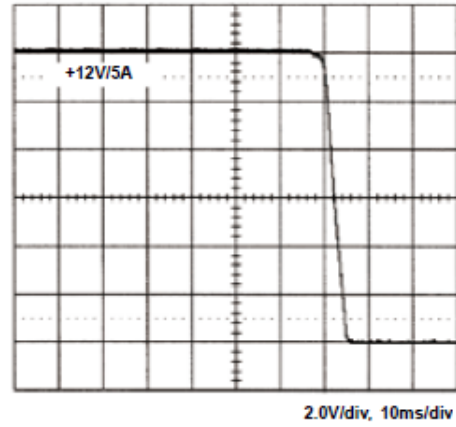
**PERFORMANCE CURVES (PSSNP-HF67-A)**



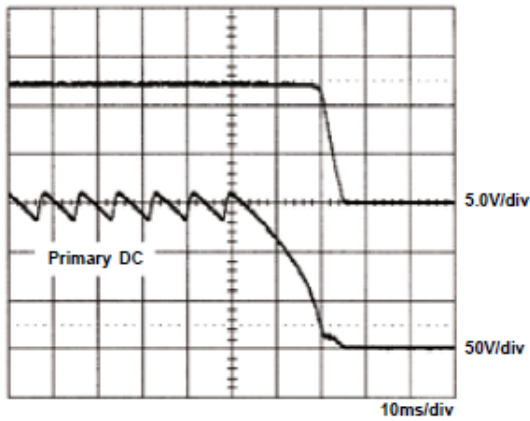
Output Turn On Wave Form



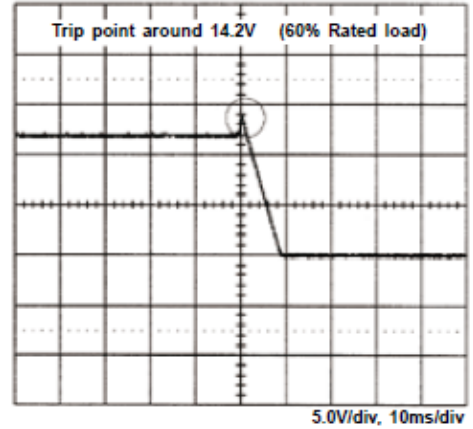
Output Turn Off Wave Form



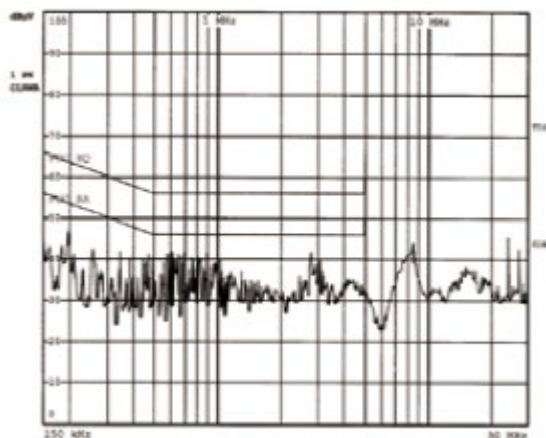
Hold-Up Time



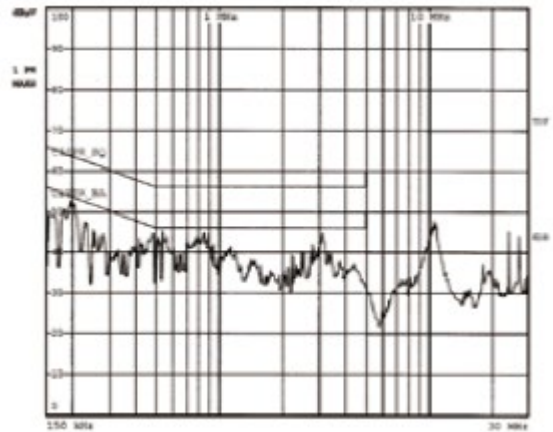
Over Voltage Protection



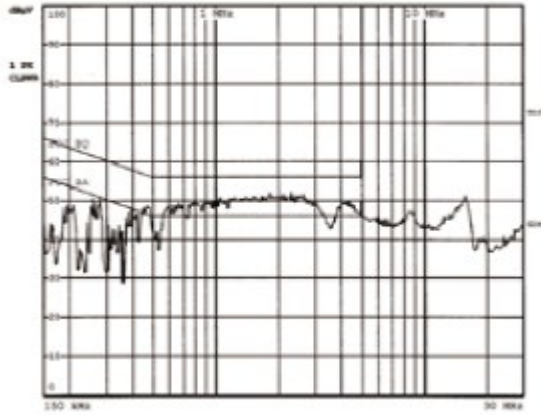
FCC B Class I



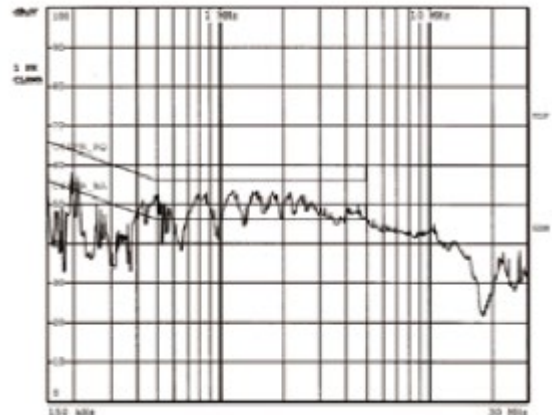
EN55011 22 B Class I



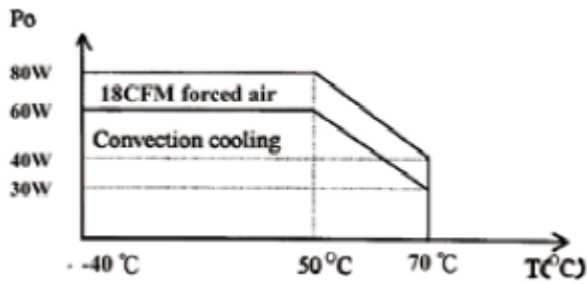
FCC Class II



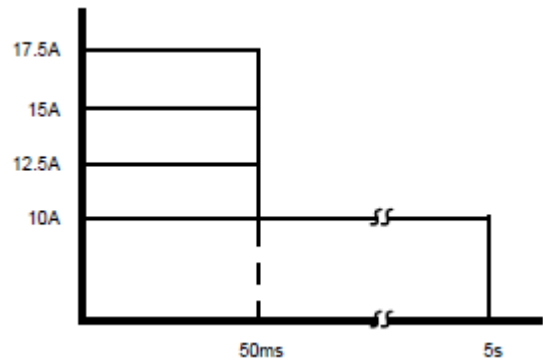
EN55011 22 B Class II



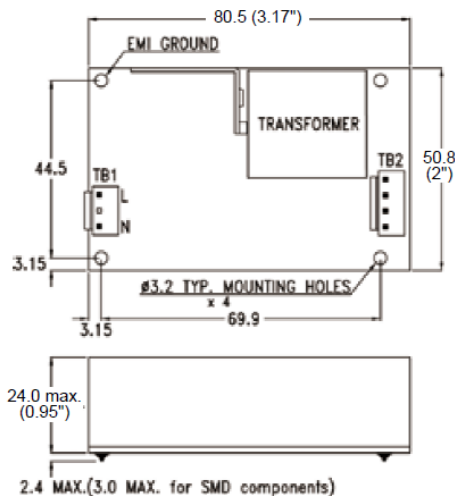
Power Derating



Power Derating Curve



**MECHANICAL DRAWINGS**



**Notes:**

1. Mounting Hole: 44.5mm x 69.9mm
2. Connectors:  
AC Input: JST B2P3-VH or equivalent  
DC Output: JST B4P-VH or equivalent
3. Output Pin Assignment:

|    |    |     |     |
|----|----|-----|-----|
| 1  | 2  | 3   | 4   |
| Vo | Vo | GND | GND |

4. Packing:  
Net Weight: Approx. 114g/unit  
Gross Weight: Approx. 14kg/carton, 100units/carton  
Carton Size: 437mm (L) x 402mm (W) x 240mm (H)

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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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