Size: 3in x 1.75in x 0.91in (76.2mm x 44.5mm x 23.1mm)

## FEATURES

- Wide Input Range of 90-264VAC
- Compact Size
- Efficiency Between 84%~86%
- Over Load, Over Voltage, and Short Circuit Protection
- Compatible to Class I/II Safety and EMC
- Useful in Dental, Lab Products, Pumps, Monitors, and Other Devices
- UL/CSA/IEC60950-1 2nd Edition, and ANSI/AAMI/CSA/IEC60601-1 3rd Edition Safety Approvals

## DESCRIPTION

The PSSNP-G04 series of AC/DC open frame power supply offers rated 40 watts, max of 48 watts, and a peak of 56 watts of output power in a compact 3" x 1.75" x 0.91" frame. This series consists of single output models with a wide input range of 90-264VAC. Each model in this series has over load, over voltage and short circuit protection, is compatible to Class I/II safety, and will have efficiency between 84% and 86%. This series also has UL/CSA/IEC60950-1 2nd Edition and ANSI/AAMI/CSA/IEC60601-1 3rd Edition safety approvals. Please call factory for order details.

## MODEL SELECTION TABLE

| Model Number(1) | Input Voltage Range | Output Voltage | Output Current | | | Voltage Accuracy | Output Power | | | Ripple & Noise |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Min Load | Rated Load | Peak Load | | Rated | Max | Peak | |
| PSSNP-G047(M) | 90~264VAC | 12 | 0A | 3.33A | 4.7A | +11.8~12.2V | 40W | 48W | 56W | 100mVp-p |
| PSSNP-G048(M) | | 15 | 0A | 2.66A | 3.8A | +14.8~15.2V | 40W | 48W | 56W | 100mVp-p |
| PSSNP-G045(M) | | 18 | 0A | 2.22A | 3.2A | +17.8~18.2V | 40W | 48W | 56W | 100mVp-p |
| PSSNP-G049(M) | | 24 | 0A | 1.66A | 2.4A | +23.7~24.3V | 40W | 48W | 56W | 150mVp-p |
| PSSNP-G04G(M) | | 28 | 0A | 1.42A | 2.0A | +27.7~28.2V | 40W | 48W | 56W | 150mVp-p |
| PSSNP-G04J(M) | | 36 | 0A | 1.11A | 1.6A | +35.6~36.4V | 40W | 48W | 56W | 150mVp-p |
| PSSNP-G04T(M) | | 48 | 0A | 0.83A | 1.16A | +47.6~48.4V | 40W | 48W | 56W | 150mVp-p |

## 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 | | 90 | | 264 | VAC |
| Input Frequency | | 47 | | 63 | Hz |
| Inrush Current | @115VAC | | | 30 | A |
| | @230VAC | | | 60 | A |
| OUTPUT SPECIFICATIONS | | | | | |
| Output Voltage | | See Table | | | |
| Voltage Accuracy | | See Table | | | |
| Line Regulation | | | ±0.5 | | % |
| Load Regulation | | | ±1 | | % |
| Output Power | | See Table | | | |
| Output Current | | See Table | | | |
| Ripple & Noise (20MHz bandwidth) | | See Table | | | |
| Hold Up Time | @Rated Load and 115VAC | | 18 | | mS |
| Standby Power Consumption | | | | 0.5 | W |
| PROTECTION | | | | | |
| Short Circuit Protection | | Automatic Recovery | | | |
| Over Load Protection | | Automatic Recovery | | | |
| Over Voltage Protection | | Latch Off | | | |
| ENVIRONMENTAL SPECIFICATIONS | | | | | |
| Operating Case Temperature | Derating: 2.5%/ºC>50ºC | -20 | | 70 | ºC |
| Storage Temperature | | -40 | | 85 | ºC |
| Cooling | | 40W Free Air Convection | | | |

## 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.

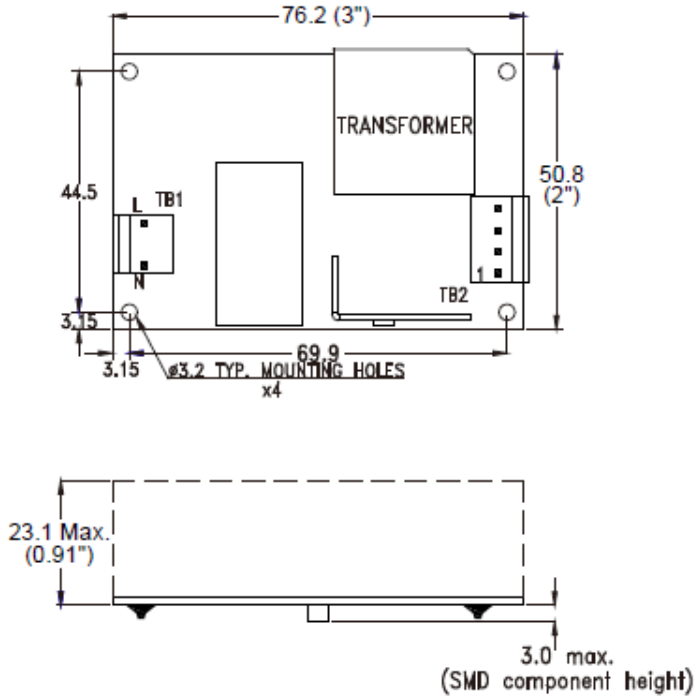
| SPECIFICATION | TEST CONDITIONS | Min | Typ | Max | Unit |
|---|---|---|---|---|---|
| **GENERAL SPECIFICATIONS** | | | | | |
| Efficiency | | 84 | | 86 | % |
| Isolation Grade | Primary ←→ Ground | | 1MOPP (1500VAC) | | |
| | Primary ←→ Secondary | | 2MOPP (4000VAC) | | |
| | Secondary ←→ Ground | | 1MOPP (1500VAC) | | |
| Leakage Current | Earth Leakage Current | | | 300 | uA |
| | Touch Current | | | 100 | |
| **PHYSICAL SPECIFICATIONS** | | | | | |
| Weight | | | 3.12oz (88.5g) | | |
| Dimensions (L x W x H) | | | 3in x 1.75in x 0.91in (76.2mm x 44.5mm x 23.1mm) | | |
| **SAFETY & EMC CHARACTERISTICS** | | | | | |
| Safety Approvals | UL/CSA/IEC60950-1 2nd Edition(5) ANSI/AMMI/CSA/IEC60601-1 3rd Edition | | | | |
| EMI(4) | EN55022 "B", EN61000-3-3 | | | | |
| Harmonics | EN61000-3-2 | | | | Class A |
| EMS | EN61000-4-2, 3, 4, 5, 6, 8, 11 | | | | |

## NOTES

1. Add "M" to the end of model number for medical version. Model number without "M" indicates the ITE application.
2. Output Load: 40W for convection cooling; 48W for forced air cooling.
3. Peak 56W can last for 5 seconds.
4. If there is a metal sheet under the power supply, connect the EMI ground to the metal sheet.
5. This product is Listed to applicable standards and requirements by UL.

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

## MECHANICAL DRAWINGS




Notes:

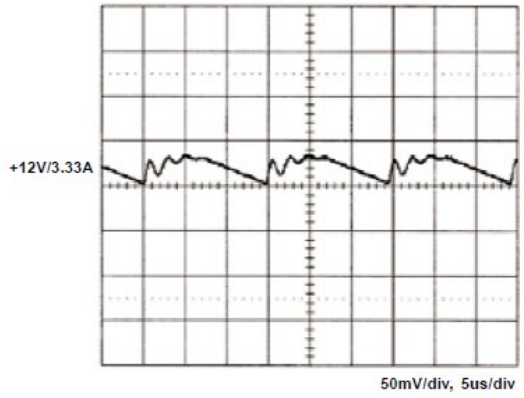
1. Mounting Hole: 44.5mm x 69.9mm
2. Connectors:
   AC Input: Molex 5277-02A or equivalent
   DC Output: Molex 5273-04A or equivalent
3. Output Pin Assignment:

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

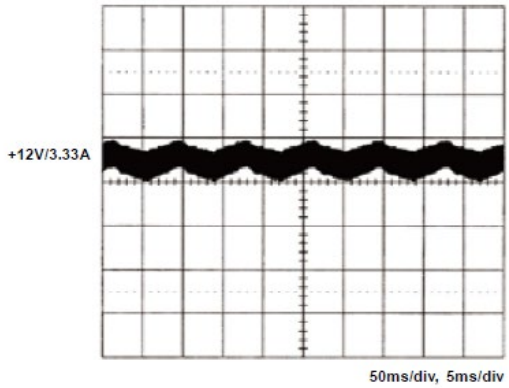
4. Packing:
   Gross Weight: approx.11.4kg/carton, 100 units/carton
   Carton Size: 412mm x 382mm x 225mm

## DERATING CURVES

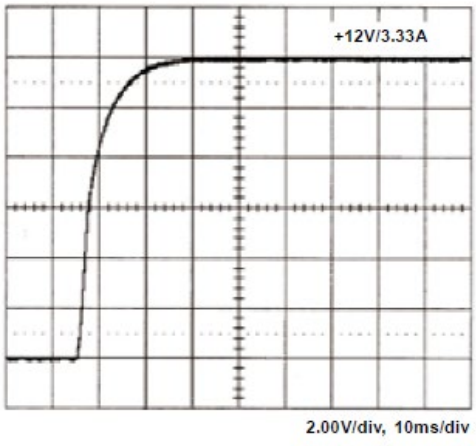
### Switching Frequency Ripple



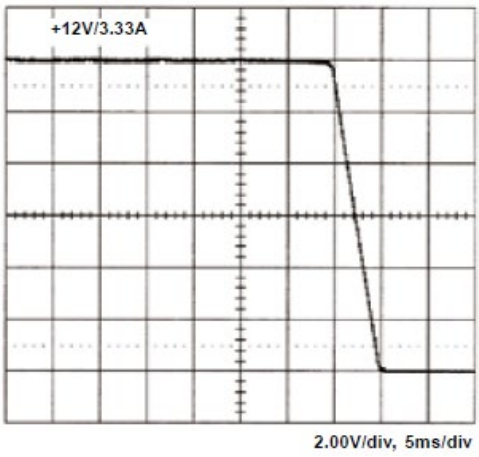

### Line Frequency Ripple



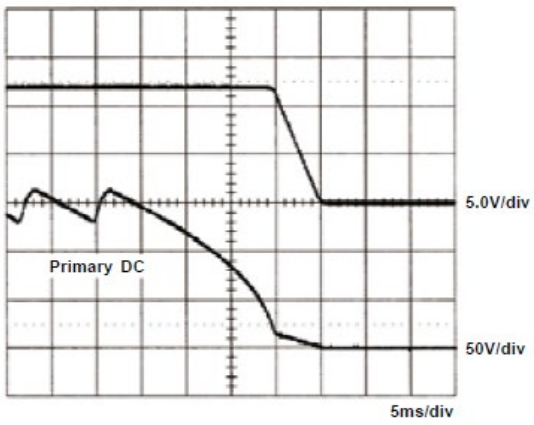

### Output Turn On Wave Form



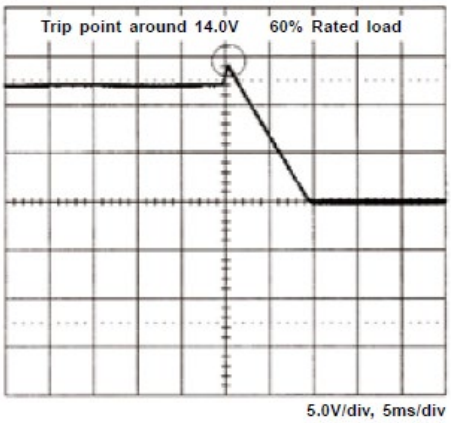

### Output Turn Off Wave Form



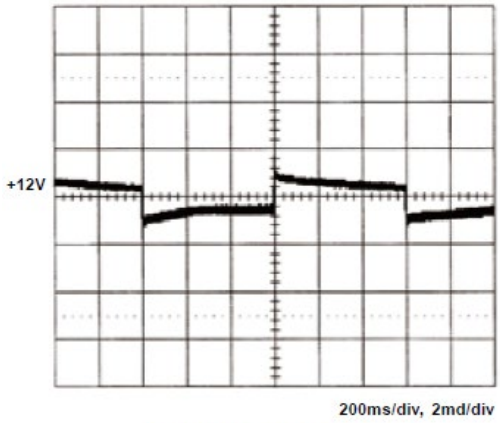

### Hold-Up Time



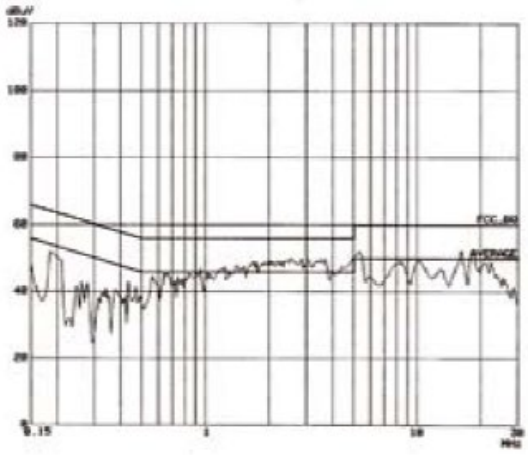

### Over Voltage Protection



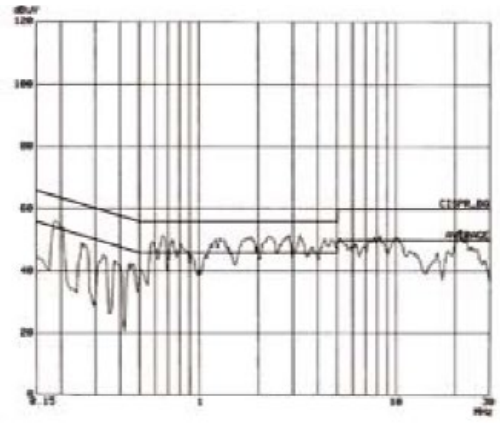
## +12V Step Response



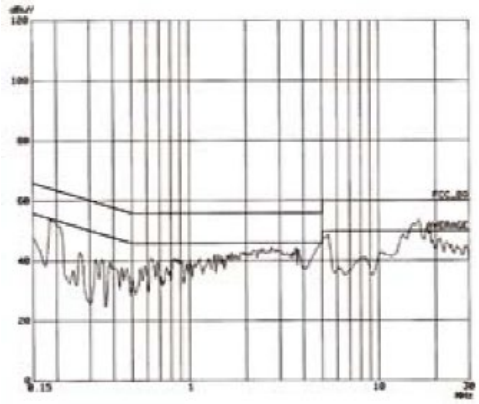

## FCC B Class I



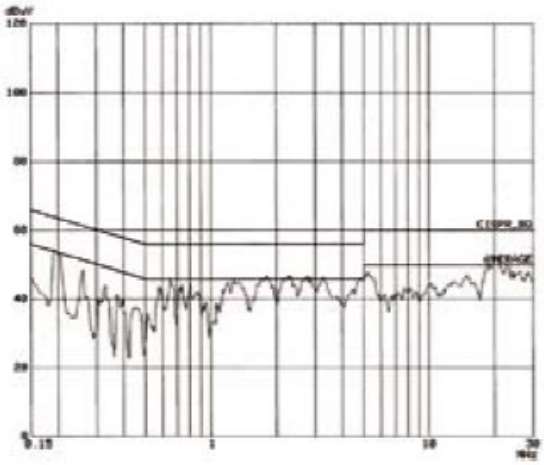
## CISPR 22 B Class I



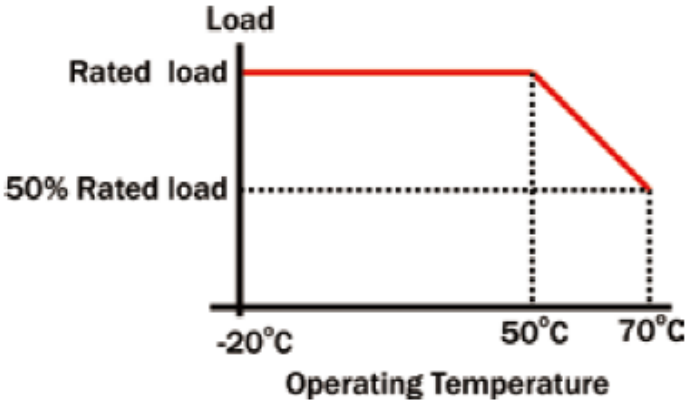
## FCC B Class II



## CISPR 22 B Class II



## Power Derating Curve



## 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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