

# RHINO PSS Series Panel Mount Power Supplies

AutomationDirect's RHINO PSS series of panel mount power supplies is perfect for applications that require a basic DC voltage power supply. These low cost power supplies offer high performance and reliability without all the additional features of higher cost full-featured power supplies. The RHINO PSS series is available with universal single-phase input and with output voltages of 12 and 24VDC from 35 to 100 Watts. The PSS0524-100 unit provides both a 24VDC and a 5VDC output. The rugged aluminum housing easily screw mounts in three different mounting orientations. These high-quality power supplies include overload, overvoltage and thermal protection, and are UL 60950 recognized, CE marked and RoHS compliant.

## Features

- Universal input voltage, 85–264 VAC / 100–375 VDC
- 12VDC, 24VDC or dual 5 and 24VDC, 35 to 100 Watts
- Adjustable output voltage
- Rugged aluminum housing, screw mounts in three different orientations
- Output voltage status LED
- Robust fixed-screw terminal strips
- Overload, overvoltage and thermal protection
- UL 60950 recognized, CE marked and RoHS compliant
- Two year warranty



| PSS Series Input Specifications |       |                    |  |                              |   |  |                 |                             |
|---------------------------------|-------|--------------------|--|------------------------------|---|--|-----------------|-----------------------------|
| Part No.                        | Price | Weight             | Input Voltage                              | Input Frequency Range        | Max. Input Current                          | Inrush Current Limitation $I_{\text{t}} @ 77^{\circ}\text{F} (+25^{\circ}\text{C})$ typ. | Leakage Current | Recommended Circuit Breaker |
| PSS12-035                       | <---> | 0.21 kg [0.46 lb]  | 85–264 VAC<br>(DC input range 100–375 VDC) | 47–63 Hz<br>(0Hz @ DC Input) | <0.75A Max @ 115VAC,<br><0.5A Max @ 230 VAC | <30A @ 115VAC, 60A @ 230VAC  | <1mA            | 16A<br>"B" Curve            |
| PSS12-050                       | <---> | 0.26 kg [0.57 lb]  |  |                              | <1.1A Max @ 115VAC,<br><0.7A Max @ 230VAC   | <30A @ 115VAC, 60A @ 230VAC  |                 |                             |
| PSS12-100                       | <---> | 0.45 kg [0.99 lb]  |  |                              | <2 A Max @ 115VAC,<br><1.1A Max @ 230VAC    | <60A @ 115VAC, 130A @ 230VAC   |                 |                             |
| PSS24-035                       | <---> | 0.237 kg [0.52 lb] |  |                              | <0.75A Max @ 115VAC,<br><0.5A Max @ 230VAC  | <30A @ 115VAC, 60A @ 230VAC  |                 | 10A<br>"B" Curve            |
| PSS24-050                       | <---> | 0.255 kg [0.56 lb] |  |                              | <1.1A Max @ 115VAC,<br><0.7A Max @ 230VAC   | <30A @ 115VAC, 60A @ 230VAC  |                 |                             |
| PSS24-100                       | <---> | 0.410 kg [0.90 lb] |  |                              | <2A Max @ 115VAC,<br><1.1A Max @ 230VAC     | <50A @ 115VAC, 100A @ 230VAC   |                 |                             |
| PSS0524-100                     | <---> | 0.52 kg [1.15 lb]  |  |                              | 85–264 VAC<br>(DC input range 125–375 VDC)  |  |                 |                             |

| PSS Series Output Specifications |   |              |                            |                                |                               |   |  |  |  |
|----------------------------------|---|--------------|----------------------------|--------------------------------|-------------------------------|---|--|--|--|
| Part No.                         | Output Voltage (Vnom) / Adjustment Range      | Output Power | Output Current             | Ripple and Noise (20MHz)       | Startup with Capacitive Loads | Start-Up Time   | Hold-Up Time at Nominal Load (Typ.) (Mains Buffering)          | Rise Time                                      | Efficiency   |
| PSS12-035                        | 12VDC / 11–14 VDC                             | 35W          | 3Amp                       | <100 mVpp                      | 6000 $\mu$ F                  | <2500ms @ 100% load (25°C [77°F]) and typical line input      | >15ms @ 115VAC,<br>>80ms @ 230VAC with 35W load (25°C [77°F])  | <30ms @ 100% load (25°C [77°F])                | >84% (typical)   |
| PSS12-050                        |   | 50W          | 4.17 Amp                   |                                |                               | >15ms @ 115VAC,<br>>80ms @ 230VAC with 50W load (25°C [77°F]) | >83% @ 115VAC & >84% @ 230VAC                                  |  |  |
| PSS12-100                        |   | 100W         | 8.33 Amp                   |                                |                               | <1000ms @ 100% load (25°C [77°F]) and typical line input      | >15ms @ 115VAC,<br>>80ms @ 230VAC with 100W load (25°C [77°F]) |  | >84% (typical)   |
| PSS24-035                        | 24VDC / 22–28 VDC                             | 35W          | 1.46 Amp                   | <150 mVpp                      | 8000 $\mu$ F                  | <2500ms @ 100% load (25°C [77°F]) and typical line input      | >15ms @ 115VAC,<br>>80ms @ 230VAC with 35W load (25°C [77°F])  | >85% @ 115VAC & >84% @ 230VAC                  |  |
| PSS24-050                        |   | 50W          | 2.1 Amp                    |                                |                               | >15ms @ 115VAC,<br>>80ms @ 230VAC with 50W load (25°C [77°F]) | >86% (typical)   |  |  |
| PSS24-100                        |   | 100W         | 4.17 Amp                   |                                |                               | <1000ms @ 100% load (25°C [77°F]) and typical line input      |  |  | >15ms @ 115VAC,<br>>90ms @ 230VAC with 100W load (25°C [77°F]) |
| PSS0524-100                      | V1: 24VDC / 22.8–26.4 VDC<br>V2: 5VDC / Fixed | 100W         | V1: 2.7 Amp<br>V2: 7.0 Amp | V1: <200 mVpp;<br>V2: <80 mVpp | 4000 $\mu$ F                  | <1000ms @ 100% load (25°C [77°F]) and typical line input      | >15ms @ 115VAC,<br>>80ms @ 230VAC with 100W load (25°C [77°F]) | V1: <30ms, V2: <20ms @ 100% load (25°C [77°F]) | >84% @ 115VAC & >86% @ 230VAC                                  |

# RHINO PSS Series Panel Mount Power Supply Specifications

| General Specifications                            |   |
|---|---|
| <b>Output Line Regulation</b>                     | <0.5% typical (@ 85–264 VAC input, 100% load)   |
| <b>Output Load Regulation</b>                     | <1% typical (@ 85–264 VAC input, 0-100% load)   |
| <b>Overload/Short Circuit Protection</b>          | >120% rated load current, hiccup mode with auto recovery (PSS0524-100: >150% of total rated output power, hiccup mode, non-latching, auto-recovery) |
| <b>Overvoltage Protection</b>                     | 32VDC max. (PSS0524-100 V1: <32.4 VDC max., V2: 6.75 VDC max.), hiccup mode, non-latching (auto recovery)   |
| <b>Case Cover</b>                                 | Aluminium (Al1100)  |
| <b>Signals</b>                                    | Green LED DC OK   |
| <b>MTBF</b>                                       | >700,000 hrs.   |
| <b>Noise</b>                                      | Sound pressure level (SPL) <40dBA   |
| <b>Cooling</b>                                    | Convection  |
| <b>Input/Output Terminal</b>                      | Terminal block 5-Pin rated 300V/20A (PSS0524-100: 7-Pin rated 300V/15A)   |
| <b>Shock Test</b>                                 | 30g half sine, 3 times per direction, 6 directions, per IEC60068-2-27   |
| <b>Vibration</b>                                  | 10 to 150Hz, 5g, 20 min. each axis per IEC60068-2-6   |
| <b>Operating Temperature</b>                      | -10°C to +70°C* [14°F to 158°F]   |
| <b>Storage Temperature</b>                        | -25°C to +85°C [-13°F to 185°F]   |
| <b>Humidity at +25 °C [77°F], no condensation</b> | <95% RH non-condensing  |

\* Operating to 70°C [158°F] possible with a linear derating to half power from 50°C to 70°C [122°F to 158°F]

| Safety and Agency Approvals |  |
|-----------------------------|--|
| <b>EMC / Emissions</b>      | FCC Title 47, Class B/EN 55022/CISPR22, Class B  |
| <b>Immunity</b>             | EN 61000-4-2,1995; EN 61000-4-3,1998; EN 61000-4-4,1995; IEC61000-4-5,1995; EN 61000-4-6,1996; EN 61000-4-8 or IEC61000-4-12 or IEEE C62.41; EN 61000-3-2,1994 |
| <b>Voltage Dips</b>         | Conform to EN 61000-4-11   |
| <b>Galvanic Isolation</b>   | Input to Output : 3 KVAC, Input to Ground : 1.5 KVAC, Output to Ground : 0.5 KVAC  |
| <b>Approvals</b>            | UR/cUR recognized to UL60950-1 (file no. E198298); CB test certificate and report to IEC60950-1, CE (EMC and Low Voltage directive)                            |
| <b>RoHS Compliant</b>       | Yes  |

| Additional Data    |   |   |                       |                          |
|--------------------|---|---|-----------------------|--------------------------|
| Part No.           | Wire Size / Torque  |   | Terminal Block Type   | Chassis Mounting Torque  |
|                    | Input   | Output  |                       |                          |
| <b>PSS12-035</b>   | 0.32-2.1 mm <sup>2</sup> [AWG 22–14] /<br>1.3 Nm [11.3 lb-in] | 0.32-2.1 mm <sup>2</sup> [AWG 22–14] /<br>1.3 Nm [11.3 lb-in] | Fixed screw terminals | 0.4–0.8 Nm [3.5–7 lb-in] |
| <b>PSS12-050</b>   |   |   |                       |                          |
| <b>PSS12-100</b>   |   |   |                       |                          |
| <b>PSS24-035</b>   | 0.32-3.3 mm <sup>2</sup> [AWG 22–12] /<br>1.3 Nm [11.3 lb-in] | 0.32-3.3 mm <sup>2</sup> (AWG 22–12) /<br>1.3 Nm [11.3 lb-in] |                       |                          |
| <b>PSS24-050</b>   |   |   |                       |                          |
| <b>PSS24-100</b>   |   |   |                       |                          |
| <b>PSS0524-100</b> |   |   |                       |                          |

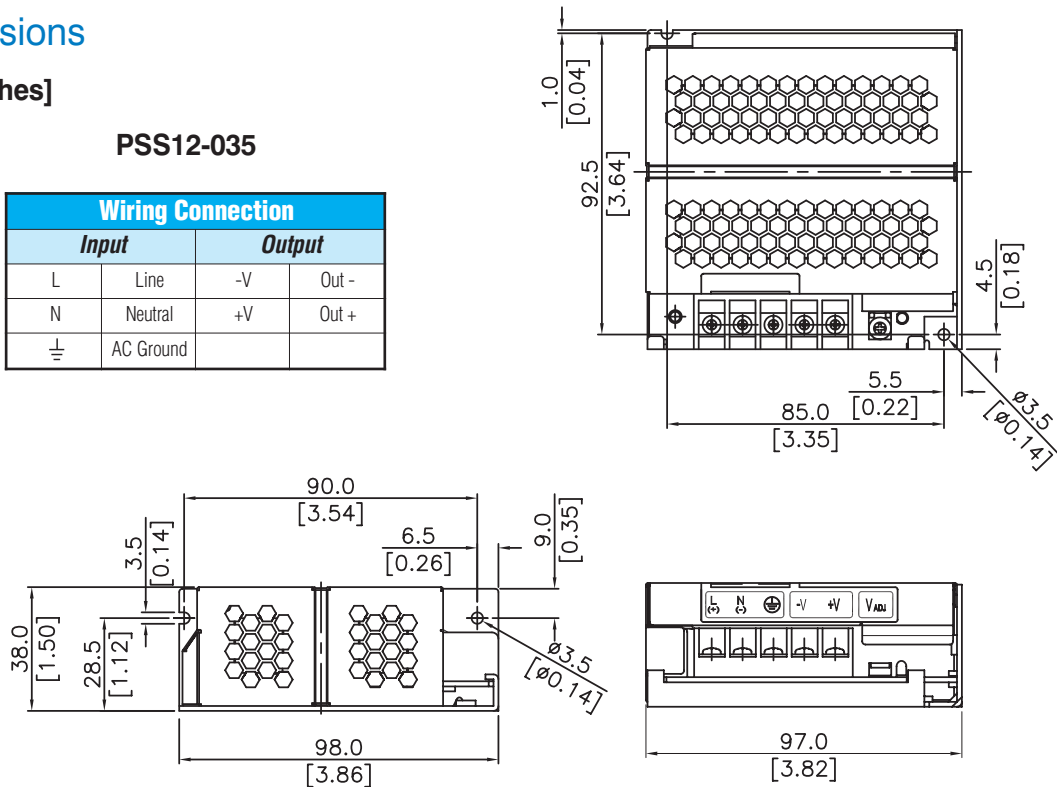
# RHINO PSS Series Panel Mount Power Supplies

## Dimensions

mm [inches]

### PSS12-035

| Wiring Connection |           |        |       |
|-------------------|-----------|--------|-------|
| Input             |           | Output |       |
| L                 | Line      | -V     | Out - |
| N                 | Neutral   | +V     | Out + |
|                   | AC Ground |        |       |

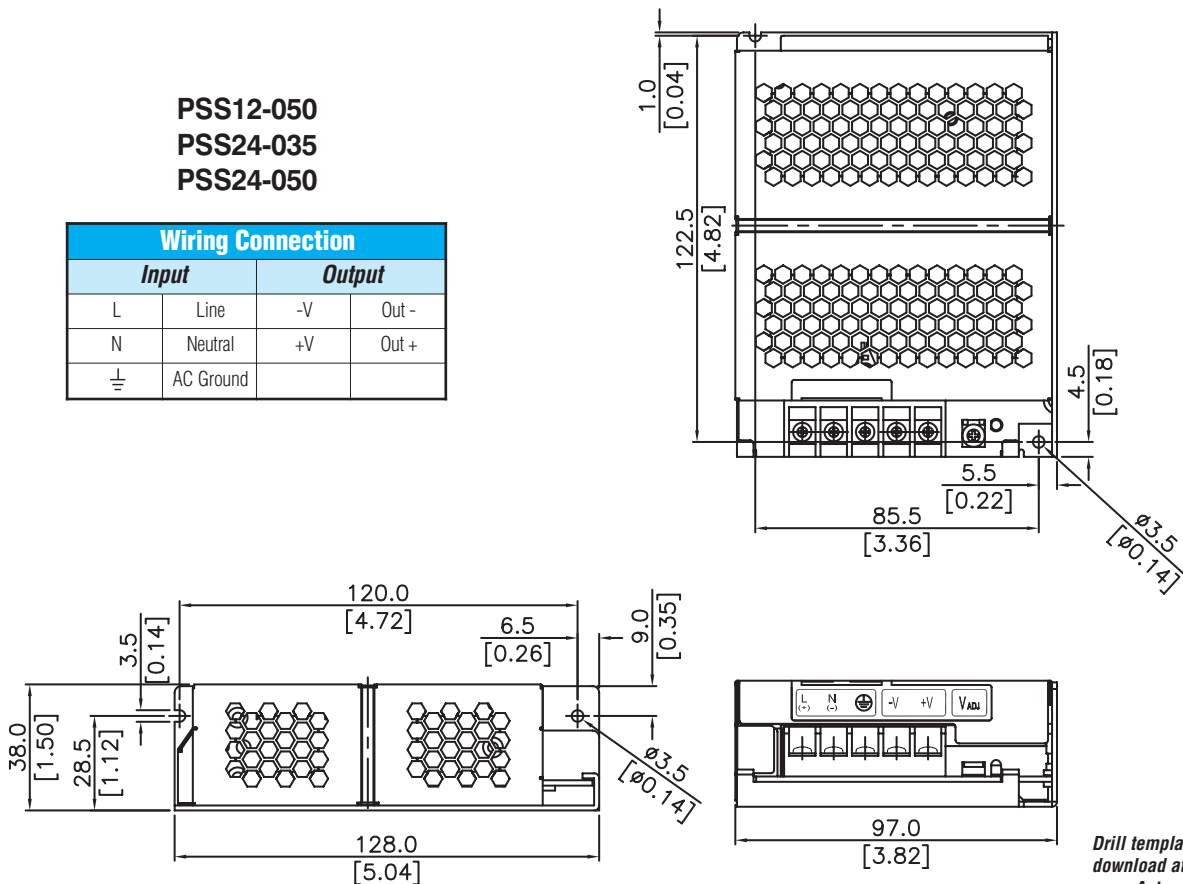


### PSS12-050

### PSS24-035

### PSS24-050

| Wiring Connection |           |        |       |
|-------------------|-----------|--------|-------|
| Input             |           | Output |       |
| L                 | Line      | -V     | Out - |
| N                 | Neutral   | +V     | Out + |
|                   | AC Ground |        |       |



Drill template available for download at [www.AutomationDirect.com](http://www.AutomationDirect.com)

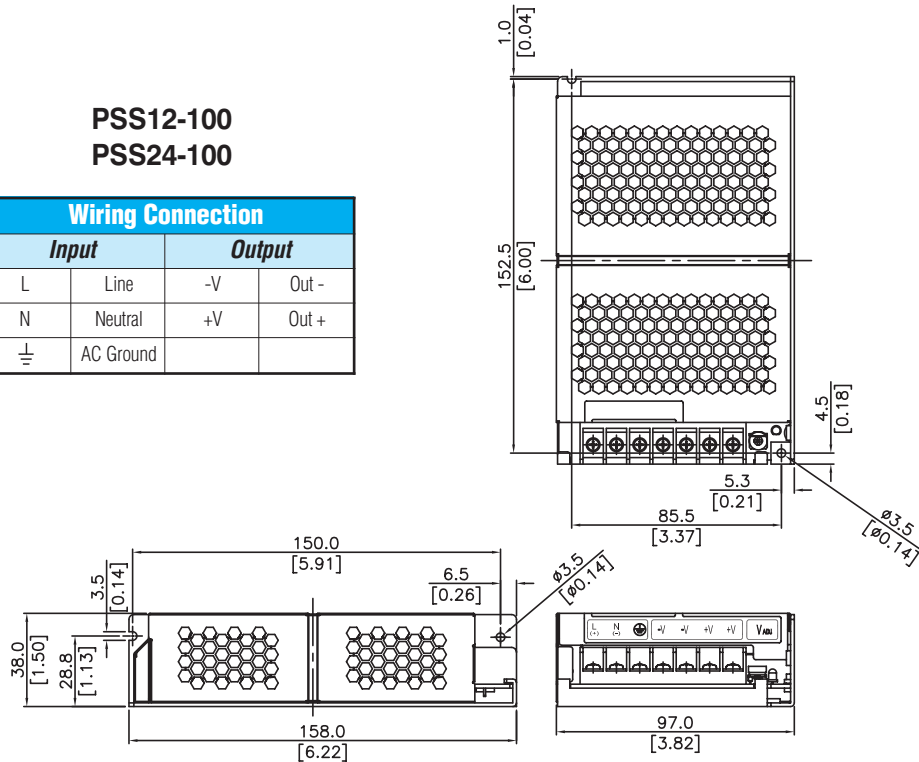
# RHINO PSS Series Panel Mount Power Supplies

## Dimensions

mm [inches]

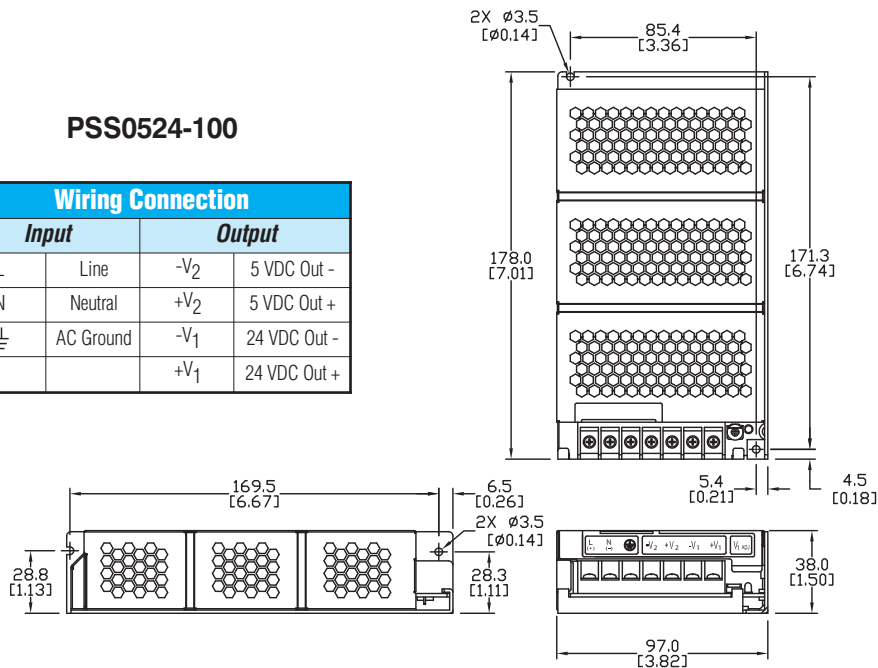
**PSS12-100**  
**PSS24-100**

| Wiring Connection |           |        |       |
|-------------------|-----------|--------|-------|
| Input             |           | Output |       |
| L                 | Line      | -V     | Out - |
| N                 | Neutral   | +V     | Out + |
|                   | AC Ground |        |       |



**PSS0524-100**

| Wiring Connection |           |                 |              |
|-------------------|-----------|-----------------|--------------|
| Input             |           | Output          |              |
| L                 | Line      | -V <sub>2</sub> | 5 VDC Out -  |
| N                 | Neutral   | +V <sub>2</sub> | 5 VDC Out +  |
|                   | AC Ground | -V <sub>1</sub> | 24 VDC Out - |
|                   |           | +V <sub>1</sub> | 24 VDC Out + |



Drill template available for download at [www.AutomationDirect.com](http://www.AutomationDirect.com)

Company Information

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Appendix

Product Index

Part # Index