

# 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, 120/240 VAC or 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 Number                 | Price   | Weight kg [lb] | Input Voltage                              | Input Frequency Range        | Max. Input Current                          | Inrush Current Limitation I2t @ 77°F [+25°C] typ. | Leakage Current | Recommended Circuit Breaker |
|-----------------------------|---------|----------------|--|------------------------------|---|---|-----------------|-----------------------------|
| <a href="#">PSS12-035</a>   | \$21.00 | 0.21 [0.46]    | 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,<br>60A @ 230VAC                    | <1mA            | 16A<br>"B" Curve            |
| <a href="#">PSS12-050</a>   | \$23.00 | 0.26 [0.57]    |  |                              | <1.1A Max @ 115VAC,<br><0.7A Max @ 230VAC   | <30A @ 115VAC,<br>60A @ 230VAC                    |                 |                             |
| <a href="#">PSS12-100</a>   | \$35.50 | 0.45 [0.99]    |  |                              | <2 A Max @ 115VAC,<br><1.1A Max @ 230VAC    | <60A @ 115VAC,<br>130A @ 230VAC                   |                 |                             |
| <a href="#">PSS24-035</a>   | \$21.00 | 0.237 [0.52]   |  |                              | <0.75A Max @ 115VAC,<br><0.5A Max @ 230VAC  | <30A @ 115VAC,<br>60A @ 230VAC                    |                 |                             |
| <a href="#">PSS24-050</a>   | \$23.00 | 0.255 [0.56]   |  |                              | <1.1A Max @ 115VAC,<br><0.7A Max @ 230VAC   | <30A @ 115VAC,<br>60A @ 230VAC                    |                 |                             |
| <a href="#">PSS24-100</a>   | \$35.50 | 0.410 [0.90]   |  |                              | <2A Max @ 115VAC,<br><1.1A Max @ 230VAC     | <50A @ 115VAC,<br>100A @ 230VAC                   |                 |                             |
| <a href="#">PSS0524-100</a> | \$49.50 | 0.52 [1.15]    | 85–264 VAC<br>[DC input range 125–375 VDC] |                              |   |   |                 | 16A<br>"B" Curve            |

## PSS Series Output Specifications

| Part Number                 | 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) @ 25°C [77°F] | Rise Time                                    | Efficiency [Typ @ 115VAC]                     |     |
|-----------------------------|---|--------------|----------------------------|-----------------------------|-------------------------------|--|---|--|---|-----|
| <a href="#">PSS12-035</a>   | 12VDC / 11–14 VDC                             | 35W          | 3Amp                       | <100 mVpp                   | 6000µF                        | <2500ms @ 100% load 25°C [77°F] and typical line input | >15ms @ 115VAC, >80ms @ 230VAC with 35W load )                      | <30ms @ 100% load 25°C [77°F]                | 85%   |     |
| <a href="#">PSS12-050</a>   |   | 50W          | 4.17 Amp                   |                             |                               |  |   |  | >15ms @ 115VAC, >80ms @ 230VAC with 50W load  | 84% |
| <a href="#">PSS12-100</a>   |   | 100W         | 8.33 Amp                   |                             |                               |  |   |  | >15ms @ 115VAC, >80ms @ 230VAC with 100W load | 84% |
| <a href="#">PSS24-035</a>   | 24VDC / 22–28 VDC                             | 35W          | 1.46 Amp                   | <150 mVpp                   | 8000µF                        | <2500ms @ 100% load 25°C [77°F] and typical line input | >15ms @ 115VAC, >80ms @ 230VAC with 35W load                        | <30ms @ 100% load 25°C [77°F]                | 85%   |     |
| <a href="#">PSS24-050</a>   |   | 50W          | 2.1 Amp                    |                             |                               |  |   |  | >15ms @ 115VAC, >80ms @ 230VAC with 50W load  | 86% |
| <a href="#">PSS24-100</a>   |   |              | 4.17 Amp                   |                             |                               |  |   |  | >15ms @ 115VAC, >90ms @ 230VAC with 100W load |     |
| <a href="#">PSS0524-100</a> | V1: 24VDC / 22.8–26.4 VDC<br>V2: 5VDC / Fixed | 100W         | V1: 2.7 Amp<br>V2: 7.0 Amp | V1: <200 mVpp; V2: <80 mVpp | 4000µF                        | <1000ms @ 100% load 25°C [77°F] and typical line input | >15ms @ 115VAC, >80ms @ 230VAC with 100W load                       | V1: <30ms, V2: <20ms @ 100% load 25°C [77°F] | 82%   |     |

# 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 to +70°C* [+14 to +158°F]   |
| <b>Storage Temperature</b>                        | -25 to +85°C [-13 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 to 70°C [122 to 158°F]

| Safety and Agency Approvals |  |
|-----------------------------|--|
| <b>EMC / Emissions</b>      | FCC Title 47, Class B/EN 55032;CISPR32, 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 Number                 | Wire Size / Torque   |  | Terminal Block Type   | Chassis Mounting Torque   | Drawing Link        |
|                             | Input  | Output   |                       |                           |                     |
| <a href="#">PSS12-035</a>   | 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 N•m [3.5–7 lb•in] | <a href="#">PDF</a> |
| <a href="#">PSS12-050</a>   |  |  |                       |                           | <a href="#">PDF</a> |
| <a href="#">PSS12-100</a>   |  |  |                       |                           | <a href="#">PDF</a> |
| <a href="#">PSS24-035</a>   | 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]  |                       |                           | <a href="#">PDF</a> |
| <a href="#">PSS24-050</a>   |  |  |                       |                           | <a href="#">PDF</a> |
| <a href="#">PSS24-100</a>   |  |  |                       |                           | <a href="#">PDF</a> |
| <a href="#">PSS0524-100</a> | 0.82-2.08 mm <sup>2</sup> (AWG 18-14) /<br>1.3 Nm (11.3 in-lb) | 0.82-2.08 mm <sup>2</sup> (AWG 18-14) /<br>1.3 Nm (11.3 in-lb) |                       |                           | <a href="#">PDF</a> |