



# RHINO POWER SUPPLIES – PS SERIES

## INSTALLATION INSTRUCTIONS

### PS Series Industrial Power Supply

Part Number	AC-Input Voltage Range	Output Power max.	Output	** Output Voltage Adjustment Range	Recommended Circuit Breaker (Characteristic C)
PS12-050D	93 - 264V AC Universal Input	50 Watt	12.0VDC / 3.5A	12.0 - 14.0VDC	5A
PS24-050D			24.0VDC / 2.0A	24.0 - 28.0VDC	
PS12-075D	115V AC/230V AC selectable 93 - 132V AC 187 - 264V AC 50 / 60Hz	75 Watt	12.0VDC / 6.0A	12.0 - 14.0VDC	
PS24-075D			24.0VDC / 3.0A	24.0 - 28.0VDC	
PS24-150D*		150 Watt	24.0VDC / 6.0A	24.0 - 28.0VDC	10A
PS24-300D*		300 Watt	24.0VDC / 12.0A	24.0 - 28.0VDC	16A
PS24-600D	115V AC 93 - 132V AC	600 Watt	24.0VDC / 20.0A	24.0 - 28.0VDC	20A
PS24-500D		500 Watt	24.0VDC / 20.0A	24.0 - 28.0VDC	

\* For CE compliance to EN 61000-3-2 (PFHC: Power Factor Harmonic Current) use on 115VAC or with a transformer providing isolation from the public power mains.

\*\* Adjustable by potentiometer with a screwdriver.

<b>Operating temperature range: Natural Air Convection Cooling</b>	-25°C - +70°C max -13°F - +158°F max	Free Space Requirements: Top and Bottom: 3.15 in (80 mm) Both Sides: 1.97in (50mm)
<b>Output Power Derating:</b>	above +50°C (122°F) → 2%/°C .....	Ambient air temperature measured 0.39in (10mm) below power supply
<b>Storage temperature range:</b>	-25°C - +85°C max -13°F - +185°F max	
<b>Connections:</b>	Pluggable screw type terminal COMBICON 22-10 AWG (0.5-6.0mm <sup>2</sup> ) wire Recommended tightening torque 0.5 to 0.7Nm (4.5 to 6.2lb.in.) Use all terminals. Use a screwdriver with 0.1378" (3.5 mm) blade width (AutomationDirect part DN-SS3).	
<b>Case material:</b>	Aluminum (chassis) and Zinc-plated steel (cover)	

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Input current:	@ Vin=115VAC	@ Vin=230VAC	Power Consumption	@ Vin=115VAC	@ Vin=230VAC
PS12-050D	1.2A typ.	0.7A typ.	PS12-050D	62 Watt typ.	60 Watt typ.
PS24-050D	1.2A typ.	0.7A typ.	PS24-050D	62 Watt typ.	60 Watt typ.
PS12-075D	1.7A typ.	0.9A typ.	PS12-075D	87 Watt typ.	86 Watt typ.
PS24-075D	1.7A typ.	0.9A typ.	PS24-075D	87 Watt typ.	86 Watt typ.
PS24-150D	3.0A typ.	1.7A typ.	PS24-150D	168 Watt typ.	165 Watt typ.
PS24-300D	5.4A typ.	3.3A typ.	PS24-300D	338 Watt typ.	330 Watt typ.
PS24-500D	9.5A typ.		PS24-500D	545 Watt typ.	
PS24-600D	10.5A typ.	6.4A typ.	PS24-600D	660 Watt typ.	652 Watt typ.

### To Install

1. Read and follow Safety and Installation instructions on the back of this page.
2. Hook top of power supply's DIN rail clip on DIN rail
3. Push down tab on top of power supply to open DIN rail clip.
4. Rotate power supply into DIN rail and release tab.
5. Verify the DIN rail clip is securely fastened on DIN rail.
6. Connect wires as indicated on power supply.

## Safety Instructions:

Before installation read these instructions carefully and completely. These installation instructions cannot cover every possible installation, operation or maintenance situation. Further information can be obtained from the product data sheets, which can be downloaded, from the Internet at <http://www.automationdirect.com>.

The power supplies are constructed in accordance with the safety requirements of IEC/EN60950, UL 1950, UL508 and UL 1604. They are approved (BG-mark) in accordance with EN60950, EN50178 and fulfill the requirements of the Low Voltage Directive (LVD). They are UL and cUL listed in accordance to UL 1950 (recognized), UL508 (listed) and UL 1604 class I, Div. 2 Groups A, B, C and D hazardous locations (listed). Before any installation, maintenance or modification work ensure that power source is off and properly secured to remain off. Touching of any live components or improper handling of this power supply can result in death, severe personal injury or substantial property damage. Safe operation is dependent on proper storage, handling, installation and operation.

Compliance with the relevant national regulations (in the USA, Europe or other countries) must be ensured. Before operation is started the following conditions must be ensured:

- Connections to mains supply in compliance with national regulations (NEC, NEMA, VDE0100 and EN50178).
- Use of stranded wires; all strands must be fastened in the terminal blocks (Potential danger of contact with the case).
- Power supply and mains cables must be sufficiently fused.
- Degree of protection I to IEC536. The non-fused protective earth connection must be connected to the FG terminal.
- All output wires must be rated for the power supply output current and must be connected with the correct polarity.
- Sufficient cooling must be ensured.

Never work on the power supply if power is applied! Risk of electric arcs and electrical shock, which can cause death, severe personal injury or substantial property damage.

**Warning:** Hazardous voltages and components storing a very substantial amount of energy are present in this power supply during normal operating conditions. However, these are inaccessible. Improper handling may result in an electric shock or serious burns! *Do not open the power supply until at least 5 minutes after it has been disconnected from the mains on all poles.*

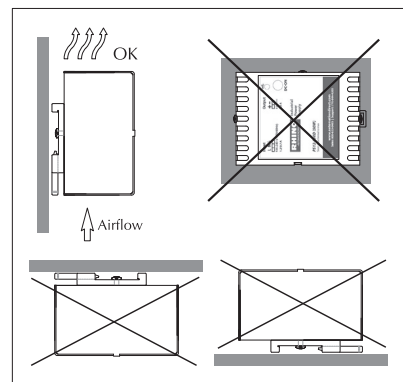
- Only trained personnel may open the power supply.
- Do not introduce any objects into the power supply. The output voltage adjustment potentiometer may only be actuated using an insulated screwdriver.
- Keep away from fire and water

## Installation Instructions:

This power supply is designed for professional indoor systems. In operation the power supply must not be accessible. It may be installed and put into service by qualified personnel only.

Do not operate without Protective Earth (PE) connection! To comply with EMC and safety standards (CE mark, approvals) the power supply must be operated only if PE terminal is connected to the non-fused earth conductor.

These power supplies are designed for DIN-rail mounting upright on horizontally mounted DIN-rail on a flat vertical surface, as shown. Do not cover any ventilation holes. Observe free space requirements and power derating for temperatures above 122°F (50° C).



The internal fuse is not accessible, as it is not intended user replace it. If this internal fuse has blown, the power supply has an internal defect and, for safety reasons, must be discarded or, if under warranty, returned. For continued protection against risk of fire, do not replace internal fuse with a fuse of different type or rating.

**Recycling:** The unit contains elements that are suitable for recycling, and components that need special disposal. You are therefore requested to make sure that the power supply will be recycled at the end of its service life.

**WARNING:** To minimize the risk of potential safety problems, follow all applicable local and national codes that regulate the installation and operation of your equipment. These codes vary from area to area and it is your responsibility to determine which codes should be followed, and to verify that the equipment, installation, and operation are in compliance with the latest revision of these codes.

- Equipment damage or serious injury to personnel can result from the failure to follow all applicable codes and standards. We do not guarantee the products described in this publication are suitable for your particular application, nor do we assume any responsibility for your product design, installation, or operation.
- If you have any questions concerning the installation or operation of this equipment, or if you need additional information, please call us at 770-844-4200.
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