



# RHINO POWER SUPPLIES – PSC SERIES

## INSTALLATION INSTRUCTIONS PSC Series Industrial Power Supply

| PSC Series Industrial Power Supplies Technical Specifications |                                    |                   |                 |                                   |  |
|---|------------------------------------|-------------------|-----------------|-----------------------------------|--|
| Part Number   | AC-Input Voltage Range             | Output Power Max. | Output          | * Output Voltage Adjustment Range | Recommended Circuit Breaker (Characteristic C) |
| PSC-05-012  | 100VAC to 240VAC                   | 12 Watt           | 5.0VDC / 2.4A   | 5.0 to 5.2VDC                     | 6A   |
| PSC-12-015  |                                    | 15 Watt           | 12.0VDC / 1.25A | 12.0 to 16.0VDC                   |  |
| PSC-24-015  |                                    |                   | 24.0VDC / 0.63A | 24.0 to 28.0VDC                   |  |
| PSC-12-030  | 85VAC to 263VAC<br>Universal Input | 30 Watt           | 12.0VDC / 2.5A  | 12.0 to 16.0VDC                   |  |
| PSC-24-030  |                                    |                   | 24.0VDC / 1.25A | 24.0 to 28.0VDC                   |  |
| PSC-12-060  | 47 to 63Hz                         | 54 Watt           | 12.0VDC / 4.5A  | 12.0 to 16.0VDC                   |  |
| PSC-24-060  |                                    | 60 Watt           | 24.0VDC / 2.5A  | 24.0 to 28.0VDC                   |  |
| PSC-24-090  |                                    | 90 Watt           | 24.0VDC / 3.75A |                                   |  |

\*Adjustable by potentiometer with a screwdriver.

### Input Signals

| Input current: | @ Vin=115VAC | @ Vin=230VAC | Power Consumption: | @ Vin=115VAC   | @ Vin=230VAC    |
|----------------|--------------|--------------|--------------------|----------------|-----------------|
| PSC-05-012     | 0.25A typ.   | 0.17A typ.   | PSC-05-012         | 16.3 Watt typ. | 16.6 Watt typ.  |
| PSC-xx-015     | 0.29A typ.   | 0.20A typ.   | PSC-xx-015         | 18.7 Watt typ. | 19.3 Watt typ.  |
| PSC-xx-030     | 0.57A typ.   | 0.39A typ.   | PSC-xx-030         | 35.8 Watt typ. | 36.3 Watt typ.  |
| PSC-12-060     | 1.00A typ.   | 0.68A typ.   | PSC-12-060         | 64.4 Watt typ. | 65.5 Watt typ.  |
| PSC-24-060     | 1.10A typ.   | 0.70A typ.   | PSC-24-060         | 68.0 Watt typ. | 69.0 Watt typ.  |
| PSC-24-090     | 1.60A typ.   | 1.07A typ.   | PSC-24-090         | 104 Watt typ.  | 104.5 Watt typ. |

### General Specifications:

|   |  |
|---|--|
| <b>Operating Temperature Range<br/>Natural Air Convection Cooling</b> | -25°C to +60°C max at nominal load, above +60°C see derating below<br>-13°F to +140°F max at nominal load, above +140°F see derating below   |
| <b>Output Power Derating</b>  | Above +60°C ..... 2.5% / °C up to +70°C<br>Above 140°F ..... 1.4% / °F up to +158°F<br><90VAC input voltage output power has to be derated by 5% / V for continuous operation  |
| <b>Storage temperature range</b>                                      | -25°C to +85°C max<br>-13°F to +185°F max  |
| <b>Wire recommendation</b>  | Input wire: 0.518 to 2.08mm <sup>2</sup> AWG: 24 to 12<br>Output wire: 0.518 to 2.08mm <sup>2</sup> AWG: 24 to 12<br>Use: Single or Stranded Wire<br>Wire temperature specification: 70°C minimum (>70°C)<br>Wire material: Copper |
| <b>Connections</b>  | Screw type terminal COMBICON, Recommended tightening torque 0.5 to 0.7Nm (4.5 to 6.2lb.in).  |
| <b>Case Material</b>  | Grey plastic ..... FR2010-110C (UL 94V - 0 rated)  |

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## 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 datasheets, 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/EN/UL60950-1, and UL508. They comply with the requirements for “Limited Power Sources” UL1310, are approved (BG-mark) in accordance with EN60950-1, EN50178 and fulfil the requirements of the Low Voltage Directive (LVD). They are UL and cUL approved by UL in accordance to UL1310 class 2 (listed) and UL508. For UL1310 the leakage current measurements shall be performed on the combination at the equipment connection in the end-use product.
- Before any installation, maintenance or modification work, ensure that the main switch is switched off and prevented from being switched on again. Non-observance, touching of any live components or improper handling of this power supply can result in death, severe personal injury or substantial property damage. Proper and safe operation is dependent on proper storage, handling, installation and operation.
- Compliance with the relevant national regulations (in the USA, Europe and other countries) must be ensured. Before operation is started the following conditions must be ensured:
  - Connection to mains supply in compliance with national regulations (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 II to IEC536. (Protection Class II).
  - 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 connected!** There is 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.
- The correct mounting position for optimal cooling performance must be observed. **Do not cover any ventilation holes.** Please allow minimum free space of 50mm (2”) above and below the power supply for air convection. Observe power derating.
- The internal fuse is not accessible, as it may not be replaced by the user. If this internal fuse has blown, the power supply has most properly an internal defect and, for safety reasons, must be discarded, or, if under warranty, returned. In case this internal fuse has to be replaced in the field, replace only with same type and rating of fuse for continued protection against risk of fire.
- **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 in an environmentally friendly way 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 operations.
  - 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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