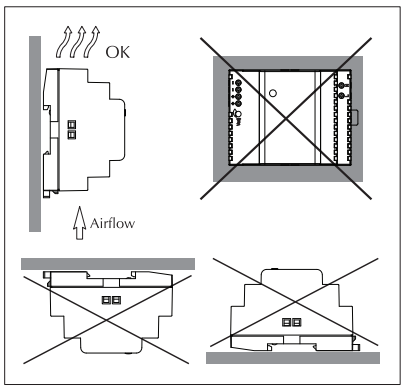
RHINO POWER SUPPLIES – PSC SERIES

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/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 requiremens 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 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.
- 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.*** 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 likely has 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.
  - This publication is based on information that was available at the time it was printed. At ***Automationdirect.com***™ we constantly strive to improve our products and services, so we reserve the right to make changes to the products and/or publications at any time without notice and without any obligation. This publication may also discuss features that may not be available in certain revisions of the product.

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)	Inrush Current 115/230VAC	Typ. Efficiency
PSC-05-012	100VAC to 240VAC 85VAC to 263VAC Universal Input 47 to 63Hz	12 Watt	5.0VDC / 2.4A	5.0 to 5.2VDC	6A	15/30A	73%
PSC-12-015		15 Watt	12.0VDC / 1.25A	12.0 to 16.0VDC			79%
PSC-24-015			24.0VDC / 0.63A	24.0 to 28.0VDC			83%
PSC-12-030		30 Watt	12.0VDC / 2.5A	12.0 to 16.0VDC		25/50A	81%
PSC-24-030			24.0VDC / 1.25A	24.0 to 28.0VDC			83%
PSC-12-060		54 Watt	12.0VDC / 4.5A	12.0 to 16.0VDC			83%
PSC-24-060		60 Watt	24.0VDC / 2.5A	24.0 to 28.0VDC			85%
PSC-24-090		90 Watt	24.0VDC / 3.75A				86%

**Adjustable by potentiometer with a screwdriver.*

Input Signals

Nominal Input current:	@ Vin=115VAC	@ Vin=230VAC	Power Consumption:	@ Vin=115VAC	@ Vin=230VAC
PSC-05-012	0.33A typ.	0.19A typ.	PSC-05-012	16.3 Watt typ.	16.6 Watt typ.
PSC-xx-015	0.38A typ.	0.24A typ.	PSC-xx-015	18.7 Watt typ.	19.3 Watt typ.
PSC-xx-030	0.9A typ.	0.5A typ.	PSC-xx-030	35.8 Watt typ.	36.3 Watt typ.
PSC-12-060	1.3A typ.	0.8A typ.	PSC-12-060	64.4 Watt typ.	65.5 Watt typ.
PSC-24-060	1.4A typ.	0.9A typ.	PSC-24-060	68.0 Watt typ.	69.0 Watt typ.
PSC-24-090	2.2A typ.	1.2A typ.	PSC-24-090	104 Watt typ.	104.5 Watt typ.

General Specifications:

Operating Temperature Range Natural Air Convection Cooling	-25°C to +60°C max at nominal load, above +60°C see derating below -13°F to +140°F max at nominal load, above +140°F see derating below
Humidity	5–95% no condensation
Max. Altitude	20000m
Output Power Derating	Above +60°C.....2.5% / °C up to +70°C Above 140°F.....1.4% / °F up to +158°F <90VAC input voltage output power has to be derated by 5% / V for continuous operation
Storage temperature range	-40°C to +85°C max -40°F to +185°F max
Wire recommendation	Input wire: 0.20 to 3.30mm² AWG: 24 to 12 Output wire: 0.20 to 3.30mm² AWG: 24 to 12 Use: Single or Stranded Wire Wire temperature specification: 70°C minimum (>70°C) Wire material: Copper
Connections	Screw type terminal COMBICON, Recommended tightening torque 0.5 to 0.7Nm (4.5 to 6.2lb.in).
Case Material	Grey plastic.....FR2010-110C (UL 94V - 0 rated)
Protection Class II	to IEC/EN 60536
Degree of Protection	IP20
Leakage Current	0.25 mA (max.)
Network Configuration	TN-S, TN-C, TT, IT

PSC series power supplies include a bicolor DC OK LED.

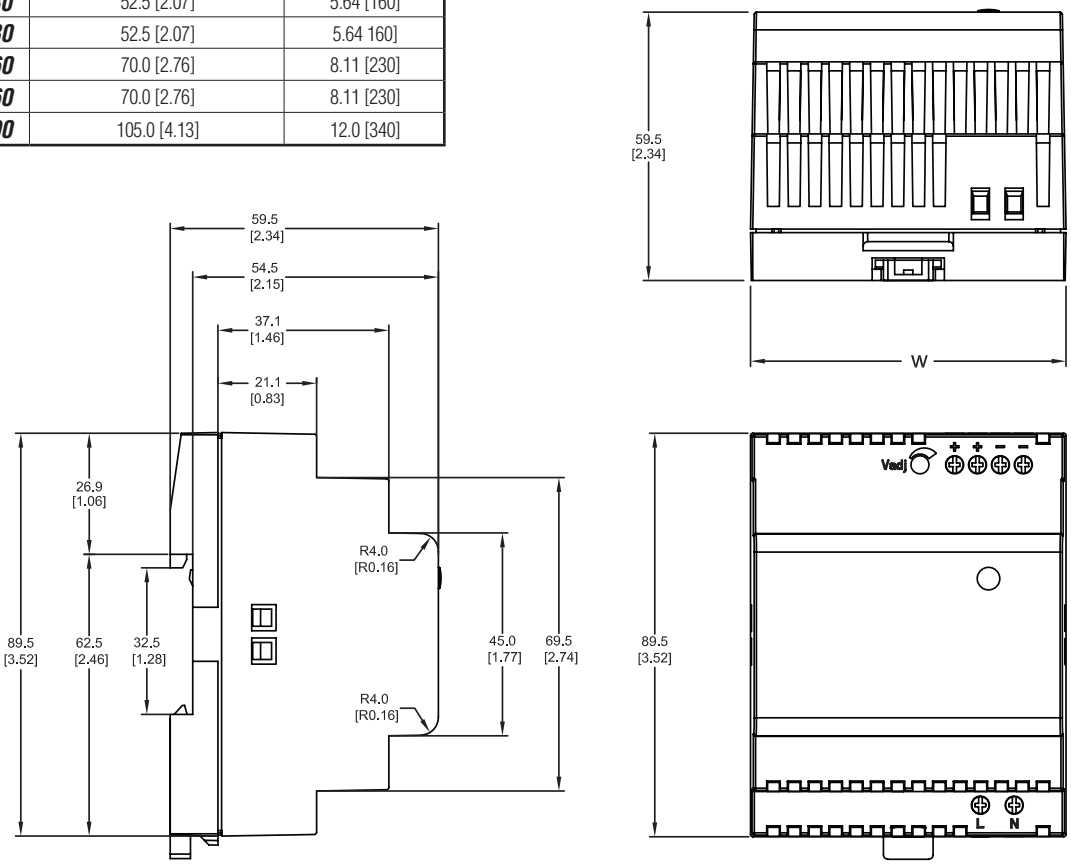
Green indicated output voltage OK.

Red indicates an output overload or short circuit condition.

Dimensions and Wiring:

Dimensions		
Part No.	**Width (W) - mm [inches]**	**Weight oz [g]**
PSC-05-012	26.3 [1.04]	3.53 [100]
PSC-12-015	26.3 [1.04]	3.53 [100]
PSC-24-015	26.3 [1.04]	3.53 [100]
PSC-12-030	52.5 [2.07]	5.64 [160]
PSC-24-030	52.5 [2.07]	5.64 160]
PSC-12-060	70.0 [2.76]	8.11 [230]
PSC-24-060	70.0 [2.76]	8.11 [230]
PSC-24-090	105.0 [4.13]	12.0 [340]

Wiring		
Input/Output	**Description**	**Wire size**
AC Input	all models: L, N only (2 pin terminal)	24 -12 AWG / 3.30mm² max
DC Output	15 -30 Watt models: single + and - terminals	24 -12 AWG / 3.30mm² max
DC Output	60 - 90 Watt models: double + and - terminals	24 -12 AWG / 3.30mm² max



TOLERANCE +/- 0.5mm [0.02"]

Derating Charts: