

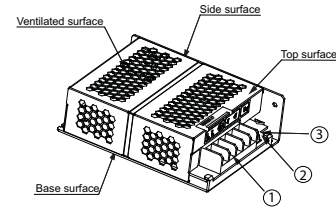
# **RHINO Installation Instructions for PSS12-050 Power Supply**



**READ INSTRUCTIONS BEFORE INSTALLING OR OPERATING THIS DEVICE. KEEP FOR FUTURE REFERENCE.**

## 1. Safety instructions

- To ensure sufficient convection cooling, always maintain a safety distance of  $\geq 20$  mm [.79in] from all ventilated surfaces while the device is in operation.
- The device is not recommended to be placed on low thermal conductive surface, for example, plastics.
- Note that the enclosure of the device can become very hot depending on the ambient temperature and load of the power supply. Do not touch the device while it is in operation or immediately after power is turned OFF. Risk of burning.
- Do not touch the terminals while power is being supplied. Risk of electric shock.
- Prevent any foreign material, particles or conductors from entering the device through the openings during installation. It can cause electric shock, safety hazard, fire, and/or product failure.
- Warning: When connecting the device, secure GND connection before connecting L and N. When disconnecting the device, remove the L and N connections before removing the GND connection.



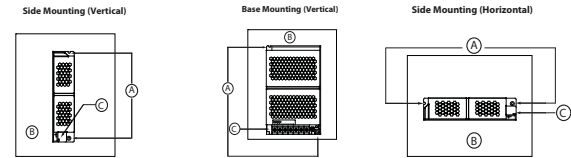
**Figure 1 - Device Descriptions**

## 2. Device description (Fig. 1)

- (1) Input & Output terminal block connector
- (2) DC voltage adjustment potentiometer
- (3) DC OK control LED (green)

## 3. Installation of the Device (Fig. 2)

- A. Mounting holes for power supply assembly onto the mounting surface. Power supply shall be mounted on minimum 2 mounting holes using M3 x 0.5 screw minimum 5 mm (0.19in) length.
- B. This surface belongs to customer's system or panel where the power supply is mounted.
- C. Connector.



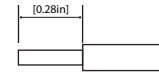
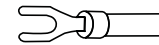
**Figure 2 - Mounting**

Use flexible (stranded wire) or solid wire 0.32-2.1 mm<sup>2</sup> (AWG 22-14). The torque at the connector shall not exceed 1.3 Nm (11.3 in-lb). The insulation stripping length should not exceed 0.28 in or 7 mm. AutomationDirect P/N BM-00120 lug or equivalent recommended for stranded wire. Refer to figure 3.

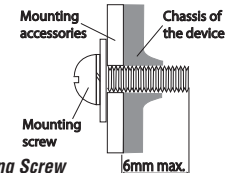
## 4. Installation of Mounting Accessories (Fig. 4)

- Only use M3 screw  $\leq 6$  mm through the base mounting holes. This is to keep a safety distance between the screw and internal components.
- Recommended mounting tightening torque: 0.4 to 0.8 Nm (3.5 to 7 in-lb).

**AutomationDirect P/N BM-00120 can be used.**




**Figure 3 - Wire Type**



**Figure 4 - Mounting Screw**

**FOR TECHNICAL ASSISTANCE CALL 770-844-4200**

## Technical Data For PSS12-050

<b>Input (AC)</b>	
Input voltage range	85-264VAC (DC input range 100-375 VDC)
Frequency	47-63Hz (0 Hz @ DC input)
Nominal current	1.1A Max. @ 115VAC, 0.7A Max. @ 230VAC
Inrush current limitation. I2t (+25 °C) typ.	< 30A @ 115VAC, 60A @ 230VAC
Leakage current	< 1 mA
Recommended circuit breaker (Characteristic B)	16A
<b>Output (DC)</b>	
Nominal output voltage / Adjustment range	12VDC / 11-14VDC
Output power	50W
Output current	4.17A
PARV (ripple and noise) (20MHz)	<100mVpp (@nominal values)
Start-up time	<2500ms@100% load (25°C [77°F]) and typical line input
Hold-up time	> 15ms @ 115VAC, >80ms @ 230VAC with 50W load (25°C [77°F])
Rise time	< 30ms @ 100% load (25°C [77°F])
Efficiency	> 83% @ 115VAC, >84% @ 230VAC
Line regulation	< 0.5% typical (@ 85-264VAC input, 100% load)
Load regulation	< 1% typical (@ 85-264VAC input, 0-100% load)
<b>General Data</b>	
Case cover	Aluminium (Al1100)
Dimensions (L x W x H)	128 mm x 97 mm x 38 mm (5.04 in x 3.82 in x 1.50 in)
Weight	0.26 kg (0.57 lb)
MTBF	> 700,000 hrs.
Noise	Sound pressure level (SPL) < 40 dBA
Cooling	Convection
Input/Output terminal	Terminal block 5 Pin rated 300V/20A
Wire size / torque	0.32-2.1 mm <sup>2</sup> (AWG 22-14) / 1.3 Nm (11.3 in-lb)
Input/Output wire	AWG22-14
Shock test	30g half sine, 3 time per direction, 6 directions, per IEC60068-2-27
Vibration	10 to 150Hz, 5g, 20 min. each axis per IEC60068-2-6
<b>Safety / Environmental</b>	
EMC / Emissions	FCC Title 47, Class B/EN55022;CISPR22, Class B
Immunity	EN 61000-4-2,1995; EN61000-4-3,1998; EN61000-4-4,1995; IEC61000-4-5,1995; EN61000-4-6,1996; EN61000-4-8 or IEC61000-4-12 or IEEE C62.41; EN61000-3-2,1994
Voltage dips	Conform to EN61000-4-11
Galvanic isolation	Input to Output : 3KVAC, Input to Ground : 1.5KVAC, Output to Ground : 0.5KVAC
Approvals	UR/cJUR recognized to UL60950-1 and CSA C22.2 No. 60950-1; CB test certificate and report to IEC60950-1, CE (EMC and Low Voltage directive)
	
RoHS Compliant	Yes
Operating temperature	-10 °C to +70 °C* (14°F to 158°F)
Storage temperature	-25 °C to +85 °C (-13°F to 185°F)
Humidity at +25 °C, no condensation	< 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)