RHINO PSS Series Panel Mount Power Supplies

Overview

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 50 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, 50 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
PSS12-050		0.26 [0.57]	85–264 VAC [DC input range 100–375 VDC]	47–63 Hz [0Hz @ DC Input]	< 1.1A Max @ 115VAC, < 0.7A Max @ 230VAC	< 30A @ 115VAC, 60A @ 230VAC	< 1mA	16A "B" Curve
PSS24-050		0.255 [0.56]			< 1.1A Max @115VAC, < 0.7A Max @ 230VAC	< 30A @ 115VAC, 60A @ 230VAC		
PSS24-100		0.410 [0.90]			< 2A Max @ 115VAC, < 1.1A Max @ 230VAC	< 50A @ 115VAC, 100A @ 230VAC		
PSS0524-100		0.52 [1.15]	85–264 VAC [DC input range 125–375 VDC]					

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]
PSS12-050	12VDC / 11–14 VDC	50W	4.17 A	< 100 mVpp	8000µF	< 2500ms @ 100% load 25°C [77°F] and typical line input	> 15ms @ 115VAC, >80ms @ 230VAC with 50W load	< 30ms @ 100% load 25°C [77°F]	84%
PSS24-050	24VDC / 22–28 VDC	50W	2.1 A	< 150 mVpp			> 15ms @ 115VAC, >80ms @ 230VAC with 50W load		86%
PSS24-100		100W	4.17 A			< 1000ms @ 100% load 25°C [77°F] and typical line input	> 15ms @ 115VAC, >90ms @ 230VAC with 100W load		
PSS0524-100	V1: 24VDC / 22.8–26.4 VDC V2: 5VDC / Fixed		V1: 2.7 A V2: 7.0 A	V1: < 200 mVpp; V2: < 80 mVpp	4000µF		> 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	
Output Line Regulation	<0.5% typical @ 85–264 VAC input, 100% load
Output Load Regulation	<1% typical @ 85–264 VAC input, 0-100% load
Overload/Short Circuit Protection	>120% rated load current, hiccup mode with auto recovery (PSS0524-100: >150% of total rated output power, hiccup mode, non-latching, auto-recovery)
Overvoltage Protection	32VDC max. [PSS0524-100 V1: <32.4 VDC max., V2: 6.75 VDC max.], hiccup mode, non-latching [auto recovery]
Case Cover	Aluminium [AI1100]
Signals	Green LED DC OK
MTBF	>700,000 hrs.
Noise	Sound pressure level [SPL] <40dBA
Cooling	Convection
Input/Output Terminal	Terminal block 5-Pin rated 300V/20A [PSS0524-100: 7-Pin rated 300V/15A]
Shock Test	30g half sine, 3 times per direction, 6 directions, per IEC60068-2-27
Vibration	10 to 150Hz, 5g, 20 min. each axis per IEC60068-2-6
Operating Temperature	-10 to 70°C* [14 to158°F]
Storage Temperature	-25 to 85°C [-13 to 185°F]
Humidity at +25 °C [77°F], no condensation	<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	
EMC / Emissions	FCC Title 47, Class B/EN 55032;CISPR32, Class B
Immunity	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
Voltage Dips	Conform to EN 61000-4-11
Galvanic Isolation	Input to Output : 3 KVAC, Input to Ground : 1.5 KVAC, Output to Ground : 0.5 KVAC
Approvals	UR/cUR recognized to UL60950-1 File no. E198298; CB test certificate and report to IEC60950-1, CE [EMC and Low Voltage directive]
RoHS Compliant	Yes

Additional Data

Part Number	***Wire Size / Torque***		***Terminal Block Type***	***Chassis Mounting Torque***	***Drawing Link***
	Input	***Output***			
PSS12-050	0.32-2.1 mm² [AWG 22–14] / 1.3 Nm [11.3 lb-in]	0.32-2.1 mm² [AWG 22–14] / 1.3 Nm [11.3 lb-in]	Fixed screw terminals	0.4–0.8 N•m [3.5–7 lb•in]	PDF
PSS24-050	0.32-3.3 mm² [AWG 22–12] / 1.3 Nm [11.3 lb-in]	0.32-3.3 mm² (AWG 22–12) / 1.3 Nm [11.3 lb-in]			PDF
PSS24-100	0.32-3.3 mm² [AWG 22–12] / 1.3 Nm [11.3 lb-in]	0.32-3.3 mm² (AWG 22–12) / 1.3 Nm [11.3 lb-in]			PDF
PSS0524-100	0.82-2.08 mm² (AWG 18-14) / 1.3 Nm (11.3 in-lb)	0.82-2.08 mm² (AWG 18-14) / 1.3 Nm (11.3 in-lb)			PDF