

RHINO PSL Series Power Supplies Specifications

Low Cost NEC Class 2 Supplies*



PSL-05-010, PSL-12-010, PSL-24-010



PSL-12-030, PSL-24-030

The RHINO PSL series power supplies are plastic low-profile switching supplies available in 5, 12 and 24 VDC adjustable output models. There are 9 models with power ratings from 7.5W to 91W. They have an integral DIN rail mounting adapter and feature universal 90 to 264 VAC input voltage, adjustable DC output, DC-OK LED indication, and output current limitation.

These are designed to fit in shallow depth control panels often used in the building automation industry. Screw terminals are provided for simple and speedy wiring terminations.

The RHINO PSL series is both UL508 listed for demanding industrial applications and UL60950-1 recognized for NEC Class 2* compliance in industrial, commercial and residential applications.

Features

- Low-profile housing - only 2.15 inches (55mm) deep (MCB form factor)
- 5, 12, 24VDC adjustable outputs
- Output power ratings from 7.5 to 91W
- Integral DIN rail mounting adapter
- Universal input voltage range 90-264 VAC, 125-375 VDC
- DC-OK LED indication
- UL508 Listed, File No. E198298
- UL60950-1 Recognized for NEC Class 2 compliance*
- Protection Class II Double Isolation

*PSL-12-090 is not NEC Class 2



PSL-12-060, PSL-24-060



PSL-12-090, PSL-24-090

PSL Single-Phase Series Input Specifications

Part No.	Price	Input Voltage Range	Input Frequency Range	Input Current Max. (@ 115/230 VAC)	Inrush Current $I_{\text{t}} @ 77^{\circ}\text{F} (+25^{\circ}\text{C}) \text{ typ.} (@ 115/230 \text{ VAC})$	Efficiency	Recommended Backup Protection	Turn-on Time	
PSL-05-010	\$28.00	100-240 VAC UL Approved	47-63 Hz	0.3 A / 0.2 A	<15A / <30A	> 77.0%	8A B -or 4A C characteristic circuit breaker	<3 sec	
PSL-12-010	\$25.00					> 80.0%			
PSL-12-030	\$32.00			0.8 A / 0.6 A	<25A / 50A	> 82.0%	13A B -or 8A C characteristic circuit breaker		
PSL-12-060	\$45.00			1.5 A / 1.0 A	<30A / 60A	> 84.0%	16A B -or 8A C characteristic circuit breaker		
PSL-12-090	\$57.00			1.5 A / 0.9 A	<40A / <80A	> 84.0%	16A B -or 8A C characteristic circuit breaker		<1.5 sec
PSL-24-010	\$28.00	90-264 VAC 125-375 VDC		0.3 A / 0.2 A	<15A / <30A	> 80.0%	16A B -or 8A C characteristic circuit breaker	<3 sec	
PSL-24-030	\$32.00					0.8 A / 0.6 A			<25A / <50A
PSL-24-060	\$45.00			1.5 A / 1.0 A	<30A / <60A	> 86.0%	16A B -or 8A C characteristic circuit breaker		
PSL-24-090*	\$57.00			2.2 A / 1.0 A	<30A / <60A	> 85.0%	16A B -or 8A C characteristic circuit breaker		<1.5 sec

*PSL-24-090 is UL Listed for 125-250 VDC input.

Output Specifications

Part Number	Output Voltage	Output Voltage Range	Output Current	Output Power (Max.)	Min. Hold-Up Time at Nominal Load (@115/230VAC)
PSL-05-010	5VDC	N/A	1.5 A	7.5W	10ms / 30ms
PSL-12-010	12VDC	N/A	0.83 A	10W	
PSL-12-030		11.5-14.5 VDC	2.1 A	25W	25ms / 30ms
PSL-12-060			4.5 A	54W	16ms / 30ms
PSL-12-090			12-14 VDC	6.0 A	72W
PSL-24-010		24VDC	N/A	0.42 A	10W
PSL-24-030	24-28 VDC		1.25 A	30W	25ms / 30ms
PSL-24-060			2.5 A	60W	16ms / 30ms
PSL-24-090			22-24 VDC	3.8 A	91.2W

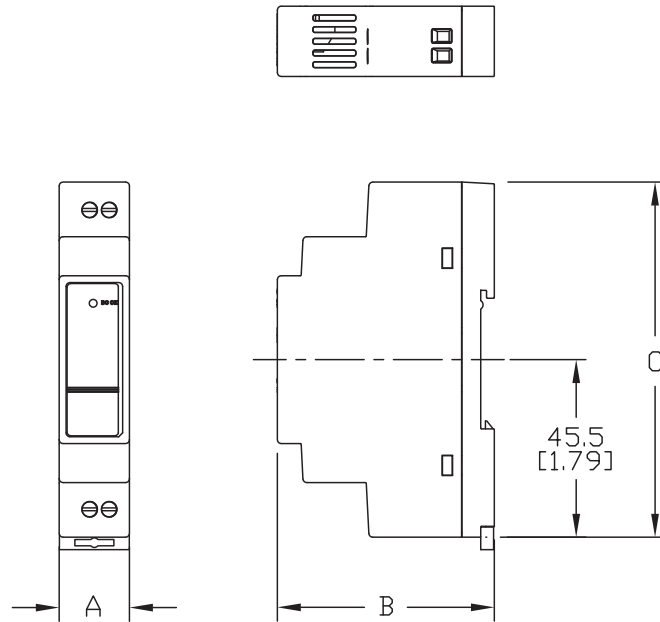
RHINO PSL Series Power Supplies Specifications

General Specifications	
Enclosure Material	Plastic (PC), closed
Signals	Green LED DC OK
MTBF	> 500,000 hrs. as per Telcordia
Connection method	Screw connection
Protection Class II	to IEC/EN 60536
Leakage Current	<0.25mA @ 240VAC
Startup with capacitive loads	Max. 3,000µF
Line Regulation	< 1% typ. (@ 90-264Vac, 100% load)
Load Regulation	< 2% typ. (@ 90-264Vac, 100% load)
Residual ripple/ peak switching (20MHz) (at nominal values)	< 50mVpp / < 150mVpp
Operating Temperature (Surrounding air temperature)	-25°C to 71°C (-13°F to 160°F) Derate above +55°C (2.5%/°C)
Storage Temperature	-25°C to 85°C (-13°F to 185°F)
Humidity at 25°C, no condensation	< 95% RH
Vibration (operating)	IEC60068-2-6, Sine Wave: 10-500Hz @ 19.6m/S ² (2G peak); 10 min per cycle, 60 min for all X, Y, Z directions
Shock (operating)	IEC60068-2-27, Half Sine Wave: 4G for a duration of 22ms, 3 shocks for each 3 directions, 9 times in total
Pollution degree	Pollution degree 2
Altitude (operating)	2000m (6562ft) maximum

Certification and Standards	
Safety entry low voltage	SELV (EN60950)
Electrical safety (of information technology equipment)	UL/C-UL recognized to UL60950-1 and CSA C22.2 No. 60950-1, CB scheme to IEC60950-1, Limited Power Source (LPS) PSL-12-090 is not LPS
Industrial control equipment	UL/C-UL listed to UL508 and CSA C22.2 No. 107.1-01 (File No. E197592)
Class 2 Power Supply	UL/C-UL recognized to UL60950-1 and CSA C22.2 No. 60950-1 (File No. E198298) PSL-12-090 is not a Class 2 power supply
CE	In conformance with EMC directive 2014/30/EC and low voltage directive 2014/35/EC
ITE	EN55022, EN61000-3-2, EN61000-3-3, EN55024
RoHS	Yes

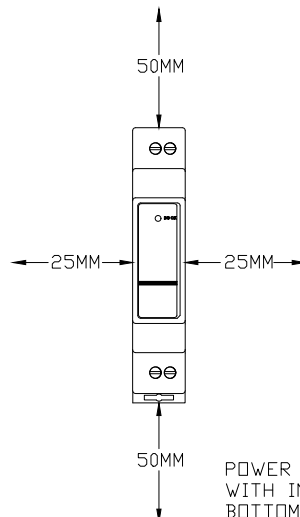
Additional Data	
Part No.	Wire Size / Torque*
PSL-05-010	26-12 AWG / 0.8 N·m [7.0 lb-in]
PSL-12-010	
PSL-12-030	24-12 AWG / 0.45 N·m [4.0 lb-in]
PSL-12-060	22-12 AWG / 0.45 N·m [4.0 lb-in]
PSL-12-090	20-12 AWG / 0.45 N·m [4.0 lb-in]
PSL-24-010	26-12 AWG / 0.8 N·m [7.0 lb-in]
PSL-24-030	24-12 AWG / 0.45 N·m [4.0 lb-in]
PSL-24-060	22-12 AWG / 0.45 N·m [4.0 lb-in]
PSL-24-090	2x24 AWG or 22-12 AWG / 0.45N·m [4.0 lb-in]
*Stripping length 7 mm (0.28 in)	

RHINO PSL Series Power Supplies Dimensions



Dimensions				
Part No.	Weight kg [lb]	Width (A)	Depth (B)	Height (C)
		mm [inches]		
PSL-05-010	0.06 [0.13]	18.0 [0.71]	55.6 [2.19]	91.0 [3.58]
PSL-12-010	0.06 [0.13]	18.0 [0.71]		
PSL-12-030	0.14 [0.31]	53.0 [2.08]		
PSL-12-060	0.22 [0.49]	71.0 [2.80]		
PSL-12-090	0.35 [0.77]	89.9 [3.54]		
PSL-24-010	0.06 [0.13]	18.0 [0.71]		
PSL-24-030	0.14 [0.31]	53.0 [2.08]		
PSL-24-060	0.22 [0.49]	71.0 [2.80]		
PSL-24-090	0.35 [0.77]	89.9 [3.54]		

REQUIRED CLEARANCES
TO ENSURE PROPER COOLING:



POWER SUPPLY SHALL BE MOUNTED
WITH INPUT TERMINALS AT THE
BOTTOM.

See our website: www.AutomationDirect.com for complete engineering drawings.