

## Regulated Switching Power Supplies



- Specifically designed to power stepper and servo systems
- High efficiency and output power up to 500W
- Input voltage of 85-132 and / or 176-265 AC
- Output voltage of 24/36/28/60 VDC
- Quick response to constant current changes
- Able to take voltage charge back in stepper/servo systems
- Short circuit, over-current, over-voltage and short-voltage protection

### Introduction

In stepper and servo systems, frequent speed and torque changes result in frequent current changes drawing from power supplies. When accelerating, servo / stepper drives draw high current and requires quick response for the power supplies. In de-acceleration, stepper / servo motors generates EMF charge back voltage back to servo / stepper drives, which will require the power supplies to “absorb” such voltage to the damage of connected stepper / servo drives.

Normal regulated switching power supplies commonly found on market are designed for powering devices with less output current changes. They can't response quick enough to meet servo and stepper system. When adopted in servo or stepper systems, they could be even damaged because of lack the ability to handle voltage charge back from de-acceleration of servo / servo systems.

With special design, built-in EMI, and large built-in capacitors, Leadshine RPS regulated switching power supplies can meet the quick and frequent current change requirements in servo / stepper systems. Leadshine RPS series supplies are capable of delivering current efficiently and quickly to servo / servo drives without affecting the reliability. Those power supplies can working in a wide voltage range of 85 - 132 and / or 176 – 265 VAC, output 24 / 36 / 48 / 60 VDC up to 500W continuous power.

### Available Products

Model	Series	Input Voltage (VAC)	Output Voltage (VDC)	Output Current (A)	Peak Current (A)	Rated Power (W)	Size (mm)	Weight (kg)
RPS2410	RPS	115/230VAC±10%	24	10		240	199*110*50	0.8
RPS369	RPS	115/230VAC±10%	36	9.7		360	215*113.6*50	0.88
RPS4810	RPS	115/230VAC±10%	48	10.4		500	261*102.4*65	1.14
RPS488	RPS	115/230VAC±10%	48	8.3		400	215*113.6*50	0.88
RPS608	RPS	115/230VAC±10%	60	8.5		500	261*102.4*65	1.14



## Datasheet of the Regulated Power Supplies

*RPS2410, RPS369, RPS488, RPS4810, RPS608*



**120/230VAC input, 24V/36V/48V/60V output**



## Features

- Specifically designed to power stepping / servo drives
- Internal EMI Filter
- 100% full load burn-in test
- Output short circuit, over-current and over-voltage protection

## Electrical Specifications

Model		RPS2410	RPS369	RPS488	RPS4810	RPS608
Output	DC VOLTAGE	24V	36V	48V	48V	60V
	RATED CURRENT	10A	9.7A	7.3 A	10.4A	8.5A
	PEAK CURRENT	12A	11A	8.5A	12.5A	10.5A
	RATED POWER	240W	350W	350W	500W	500W
	PEAK POWER	300W	400W	400W	600W	600W
	LINE REGULATION	0.5%				
	ADJ. RANGE	10%				
	RISE TIME	50ms/230VAC at full load				
	HOLD TIME	20ms/230VAC at full load				
Input	VOLTAGE RANGE	176-265VAC or 85-132VAC, selected by switch				
	FREQUENCY RANGE	47-63Hz				
	INRUSH CURRENT	40A/30VAC, Cold Start				
	LEAKAGE CURRENT	<0.5mA/230VAC				
	WITHSTAND VOLTAGE	Vin-Vout: 1500VAC/min, Vin-FG: 1500VAC/min, Vout-FG: 500VAC/min				
Protection	OVER VOLTAGE	N/A	59-66V	71-79V	71-79V	95-105V
		Protection Type: Output shunt down, need to turn off the input to reset.				
	OVER LOAD	110%-130%	110%-130%	110%-130%	110%-130%	110%-130%
Protection Type: Output shunt down, need to turn off the input to reset.						
Dimension (mm)		199*110*50	215*115*50	215*115*50	261*103*65	261*103*65
Weight		800.4g (28.23oz)	883.5g (31.16oz)	883.5g (31.16oz)	1127g (39.75oz)	1127g (39.75oz)



## Operating Environment and Parameters

Cooling	Natural cooling or forced cooling	
Operating Environment	Environment	Avoid dust, oil fog and corrosive gases
	Working Temperature	0°C — 45°C @100%
	Humidity	20 90%RH
Storage Temperature	-20°C — 85°C	

## Mechanical specification

Unit=mm, 1 inch = 25.4 mm

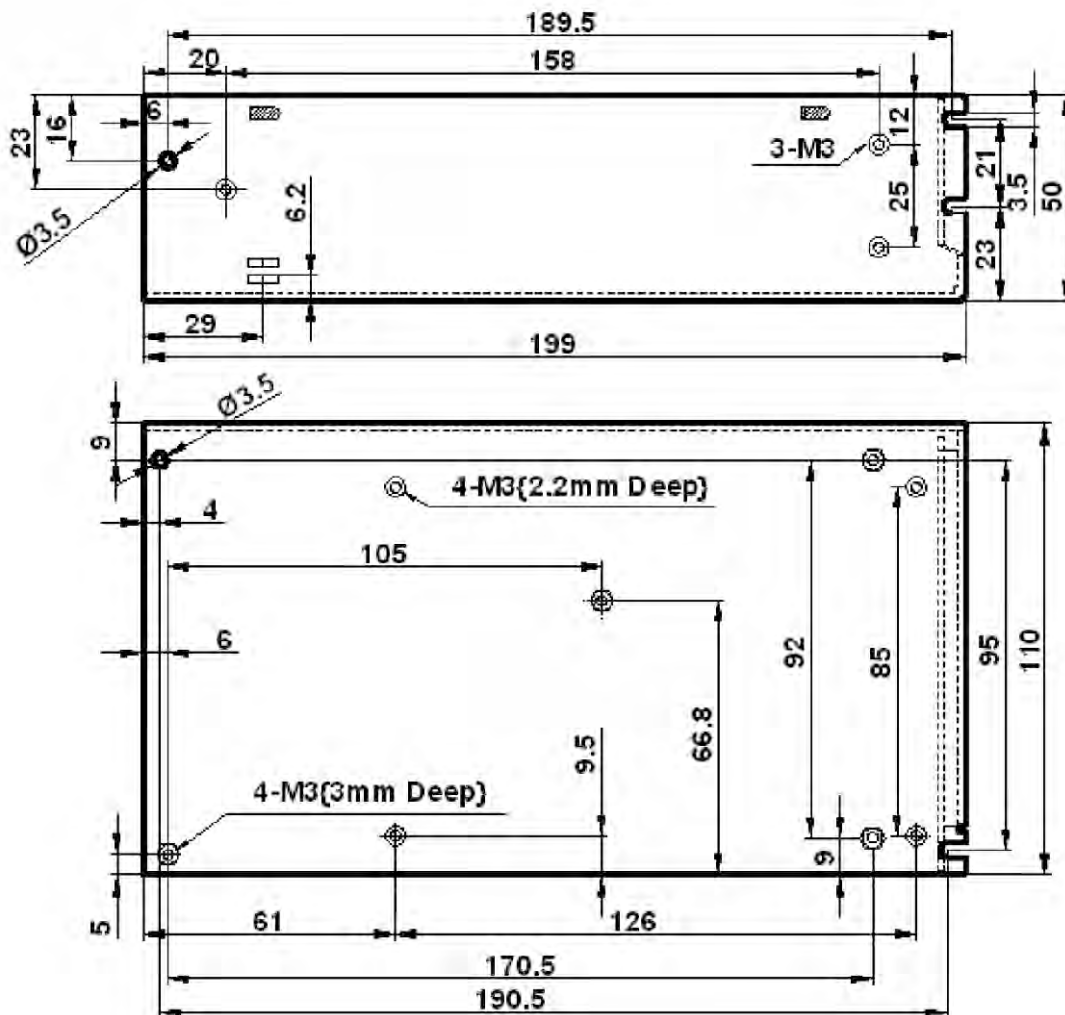


Figure 1: RPS2410 Mechanical Specification



## Mechanical specification (Continued)

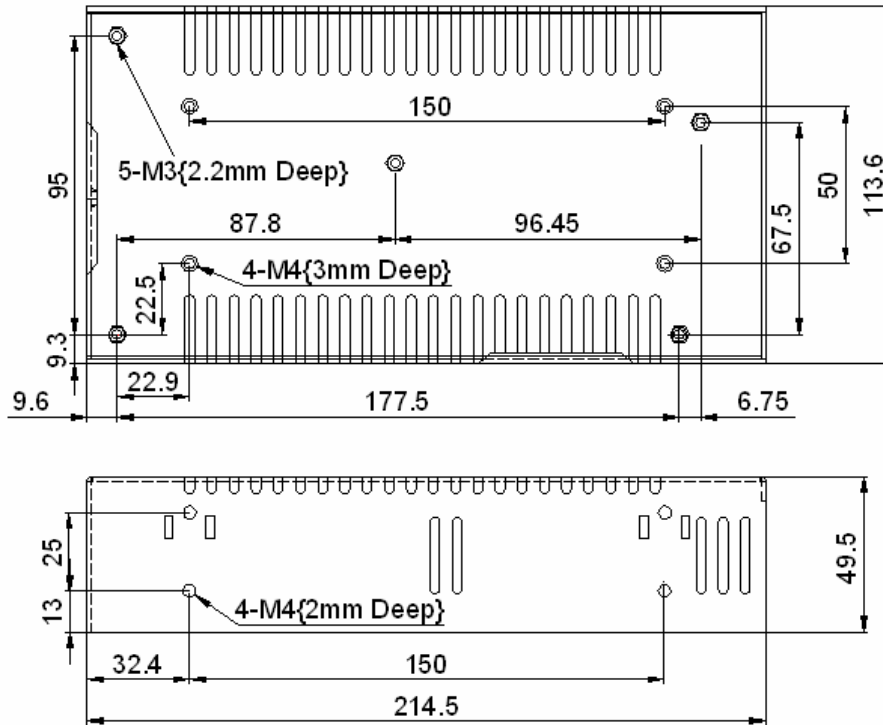


Figure 2: RPS369 or RPS488 Mechanical Specification

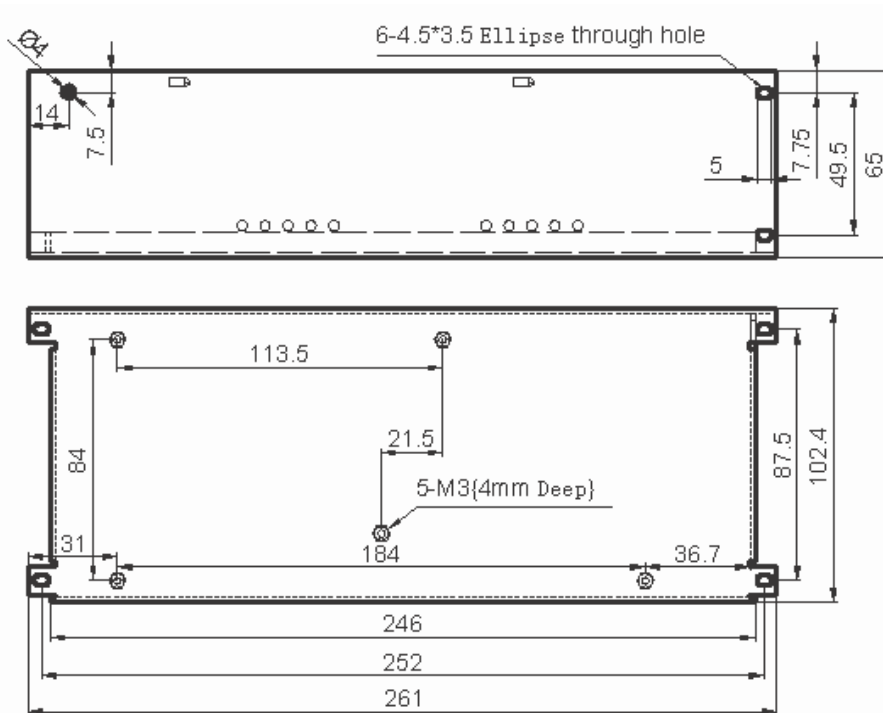



Figure 3: RPS4810 or RPS608 Mechanical Specification



## Pin Assignment and Description

Pin	Description
L	AC power input
N	
	Ground terminal. Recommend connect this port to the ground for better safety.
COM	DC output negative
+V	DC output positive

## Order Information

Model	Description
RPS2410	240W, 24VDC regulated switching power supply. Input: 85-132VAC or 176-265VAC
RPS369	350W, 36VDC regulated switching power supply. Input: 85-132VAC or 176-265VAC
RPS488	350W, 48VDC regulated switching power supply. Input: 85-132VAC or 176-265VAC
RPS4810	500W, 48VDC regulated switching power supply. Input: 85-132VAC or 176-265VAC
RPS608	500W, 60VDC regulated switching power supply. Input: 85-132VAC or 176-265VAC

