## **Power Supply**

Model PS-200

**RoHS** 



CE

- Split bobbin transformer with 3500 VRMS isolation
- · Clean, filtered and regulated DC output
- Fully adjustable from 5.0 to 25.0 VDC
- · Easily accessible inline fuse
- Output short circuit and over current protected
- Multi-position terminal strip for DC output
- Less than 2.0 mV pp ripple
- Two unique chassis for ease of installation in control panels
- 115 VAC, 230 VAC or 24 VAC line voltage options

The PS-200 power supply accepts a 115, 230 or 24 VAC input and provides a 5 to 25 VDC output that is both fully regulated and protected from short circuiting and thermal overloads. The PS-200 incorporates an inline fuse and terminal strip for the primary line voltage and multiple-position terminal strips for the DC output. Two unique chassis options are available for the PS-200, making it one of the most versatile, reliable, indestructible, easy to install, and stable power supplies in the industry.

# **OMAMAC SYSTEMS**®

8189 Century Boulevard • Minneapolis, MN 55317-8002 • USA 800-843-5116 • 952-556-4900 • Fax 952-556-4997 sales@mamacsys.com • www.mamacsys.com

4200 Waterside Centre Solihull Parkway Birmingham • West Midlands B37 7YN • United Kingdom 01384-271113 • Fax 01384-271114 1 Fullerton Road #02-01 One Fullerton Singapore • 049213 65-31581826 • Fax 65-31581826 4 Armiger Court, Unit 2 Adelaide • S.A. 5088 • Australia 08-8395-4333 • Fax 08-8395-4433 675 Cochrane Drive
East Tower • 6th Floor
Toronto • Ontario
L3R 0B8 • Canada
905-474-9215 • Fax 905-474-0876

The PS-200 is a reliable, stable and fully protected DC power supply designed to power all control peripherals. Other open-frame linear power supplies require expensive field modifications for adding an inline fuse, soldering a primary line voltage and secondary DC output leads, and engineering a bracket to mount the power supply. To address these time-consuming and costly modifications, MAMAC Systems developed a power supply which eliminates all of the above expensive field modifications.

Our PS-200 incorporates a split bobbin transformer with 3500 VRMS isolation between the windings to provide reliable and consistent secondary output. The line voltage is fuse protected, and the fuse holder is mounted on a bracket to make it easily accessible for replacement purposes. A conveniently located terminal strip is provided for the line voltage termination, and all line voltage connections including the fuse holder and the terminal strip — are fully insulated to protect against accidental electrical shock hazard. In addition, the fuse holder accepts industry standard 3AG fuses which are readily available. Furthermore, the PS-200's line voltage options of 115 VAC, 230 VAC or 24 VAC ensure that the power supply will perform with any available line voltage.

The PS-200 utilizes a full wave bridge rectifier to convert secondary AC voltage to a DC output. A single I.C. reliable voltage regulator is used to provide a stable and regulated output with built-in short circuit, thermal overload, inrush, and line voltage spike protection. Significantly, the output of the PS-200 can be indefinitely shorted without damaging the power supply, and if the load exceeds the rated specification, the power supply shuts down and goes into a dormant state. As soon as the overload condition is removed, the

power supply resumes functioning without any damage. In this way, the PS-200 is a highly reliable and indestructible power supply for the controls industry.

Multiple high-grade, low ESR, and low-leakage capacitors filter DC voltage and provide less than 2.0 mV pp ripple on the output. A multiturn trimmer allows output adjustment from 5 to 25 VDC. Once adjusted, the output remains constant regardless of line voltage fluctuations or output load variations. Furthermore, each PS-200 is shipped with its output adjusted to a customer's requirements. In addition, multiple-position terminal strips are provided for field wiring.

In order to facilitate installation of the PS-200 in a control panel, MAMAC Systems offers two unique chassis options for the power supply -- a low-height chassis designed for shallow panels and a narrow-width chassis for deep panels where horizontal space is limited. Both chassis function as heat sinks and are engineered with recessed components to provide a flush mounting surface without stand-offs or spacers.

With two chassis options, fully adjustable output, short circuit and thermal overload protection, inrush and spike protection, fuse protection on line voltage, and an easily accessible terminal strip for supply and output voltages, our PS-200 is not only the most reliable, indestructible, stable, and versatile power supply in the industry, but also requires the least amount of installation time in control panels.

#### **SPECIFICATIONS:**

Output Voltage Range: 5.0 VDC to 25.0 VDC

Line Regulation: 0.01%/V

**Load Regulation:** 0.2% (no load to full load)

**Current Limit:** 130% rated current **Output Ripple:** 2.0 mV pp maximum

Output Short Circuit: Indefinite

Thermal Overload: Internally protected

**Inline Fuse:** 3AG 1.0/2.0

Input Voltage: 90-130 VAC / 208-240 VDC / 24-29 VAC

**Operating Temperature:** -40°F to 120°F (-40°C to 50°C)

Humidity: 90% non-condensing

**Weight:** 1.5 Amps = 2.5 lbs. (1.1 kg)

3.0 Amps = 3.0 lbs. (1.4 kg)

#### **CONFORMANCE & TESTING:**

**RoHS Compliant** 

**EMC** Testing:

BS EN 55022:1998, BS EN 55024:1998,

EN 61000-3-3, EN 61000-4-2,

EN 61000-4-3, EN 61000-4-4,

EN 61000-4-5, EN 61000-4-6,

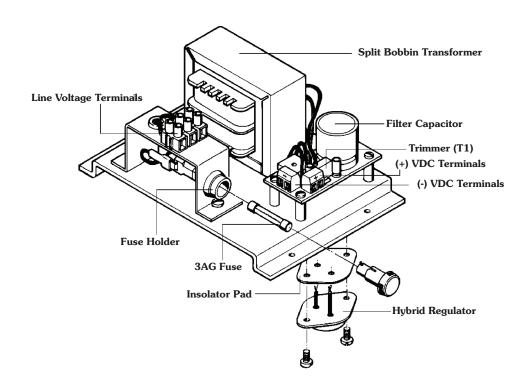
EN 61000-4-11

#### **ORDERING INFORMATION: PS-200-**

Output Voltage	Output Current	Line Voltage	Chassis
<b>1</b> 24 VDC	<b>A</b> 1.5 AMPS	<b>1</b> 115 VAC	<b>L</b> Low Height
<b>2</b> 12 VDC	<b>B</b> 3.0 AMPS	<b>2</b> 230 VAC	N Narrow Width
<b>3</b> 5 VDC		<b>3</b> 24 VAC*	

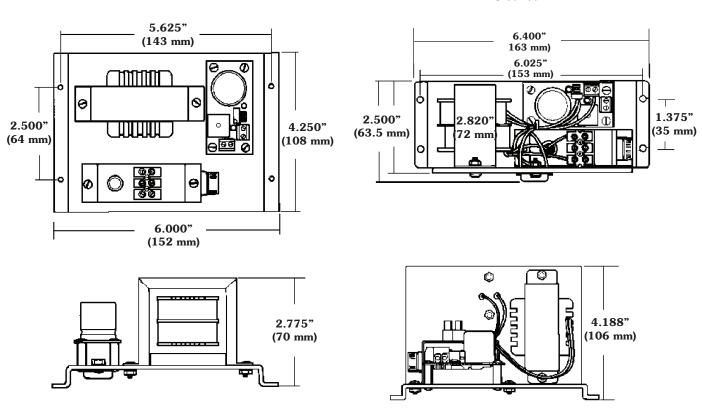
<sup>\*</sup> Available with 1.5 amps Output Current only

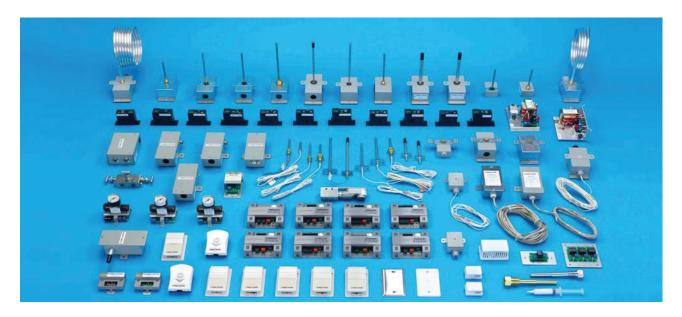
CAUTION: Do not use in explosive/hazardous environment or with flammable/combustible media.



#### **LOW HEIGHT**

#### NARROW WIDTH





MAMAC Systems is the leading global manufacturer of sensors, transducers, control peripherals and web browser based IP appliances. MAMAC products are used for HVAC and environmental controls, remote monitoring, alarming, energy metering and industrial automation.

All MAMAC products are manufactured in the USA.

**WARRANTY:** MAMAC Systems, Inc. and its subsidiaries (hereinafter referred to as MAMAC Systems) warrants its products to be free of defects in material and workmanship for a period of five (5) years from date of shipment. If a unit is malfunctioning, it must be returned to the factory for evaluation. A return authorization number (RMA) will be issued by the customer service department and this number must be written or prominently displayed on the shipping boxes and all related documents. The defective part should be shipped freight pre-paid to the factory. Upon examination by MAMAC Systems, if the unit is found to be defective, it will be repaired or replaced at no charge to the customer. However, this warranty is void if the unit shows evidence of being tampered with, damaged during installation, misapplied, misused, or used in any other operating condition outside of the unit's published specifications.

MAMAC Systems makes no other warranties or representations of any kind whatsoever, expressed or implied, except that of title. All implied warranties including any warranty of merchantability and fitness for a particular purpose are hereby disclaimed. User is responsible to determine suitability for intended use.

**LIMITATIONS OF LIABILITY:** The remedies of buyer set forth herein are exclusive and the total liability of MAMAC Systems with respect to this order, whether based on contract, warranty, negligence, indemnification, strict liability or otherwise, shall not exceed the purchase price of the product upon which liability is based. **In no event shall MAMAC Systems be liable for consequential, incidental or special damages.** MAMAC Systems reserves the right to change any specifications without notice to improve performance, reliability, or function of our products.

Every precaution for accuracy has been taken in the preparation of this manual, however, MAMAC Systems neither assumes responsibility for any omissions or errors that may appear nor assumes liability for any damages that result from the use of the product in accordance with the information contained in the manual.



8189 Century Boulevard • Minneapolis, MN 55317-8002 • USA 800-843-5116 • 952-556-4900 • Fax 952-556-4997 sales@mamacsys.com • www.mamacsys.com

4200 Waterside Centre Solihull Parkway Birmingham • West Midlands B37 7YN • United Kingdom 01384-271113 • Fax 01384-271114 1 Fullerton Road #02-01 One Fullerton Singapore • 049213 65-31581826 • Fax 65-31581826 4 Armiger Court, Unit 2 Adelaide • S.A. 5088 • Australia 08-8395-4333 • Fax 08-8395-4433 675 Cochrane Drive
East Tower • 6th Floor
Toronto • Ontario
L3R 0B8 • Canada
905-474-9215 • Fax 905-474-0876