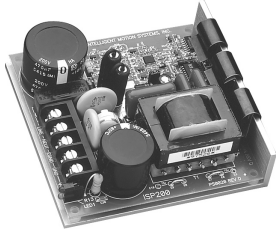
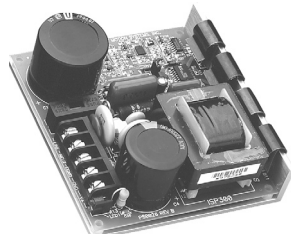


ISP SERIES

UNREGULATED SWITCHING POWER SUPPLY



ISP200-4/7



ISP300-4/7

QUICK REFERENCE

370 N. MAIN ST., PO BOX 457, MARLBOROUGH, CT 06447
 PH: (860) 295-6102, FAX: (860) 295-6107
 Internet: www.imshome.com, E-Mail: info@imshome.com



Introduction

The ISP Series Supplies are open frame 45/75 volt unregulated switch mode power supplies which can be factory configured for either 120 VAC or 240 VAC input voltage. The ISP has been designed specifically for supplying power to the inductive loads found in stepping and DC motors. Conventional switching power supplies are designed for the constant, unvarying loads of circuit boards and are not tolerant of the current surges produced by rapid changes in power demand and the inductance of motor coils.

The ISP is well protected with designed-in short circuit, over voltage, and temperature protection circuits. The protection circuits, along with LED's for fault and power, are provided to aid in troubleshooting.

The lightweight, compact packaging of the ISP permits easy integration of the power supply into OEM equipment.

ISP200-4/7

The ISP200 is capable of delivering 1.5 Amps (-4), 1 Amp (-7) of continuous current and has the ability to absorb inductive current surges associated with stepping and DC motors. This produces more even output power and enables motors to operate at higher performance levels.

ISP300-4/7

The ISP300 is capable of delivering 3 Amps (-4), 2 Amps (-7) of continuous current and has the ability to absorb inductive current surges associated with stepping and DC motors. This produces more even output power and enables motors to operate at higher performance levels.

Protective Features

Soft Start

The ISP has circuitry to limit the surge current when AC power is applied. Operation of the power output circuit is delayed until the power supply input capacitor has reached a sufficient voltage level. The internal PWM soft start circuit then begins operation and full output voltage is developed after 100-200 milliseconds.

Short Circuit Protection

A short circuit or severe overload on the DC output will cause the ISP to shutdown. The output voltage will be shut off and the red "FAULT" indicator will be illuminated. In order to clear the fault the short circuit or overload condition must be corrected and AC power must be cycled.

Thermal Shutdown

An electronic sensor monitors the temperature of the transformer and will cause the ISP to shutdown should the temperature reach approximately 90°C. The output voltage will be shut off and the red "FAULT" indicator will be illuminated. The transformer must be allowed to cool by a minimum of 10°C. The fault can then be cleared by cycling the AC power.

Over Voltage

If the ISP senses an input voltage above 133 VAC the over voltage protection circuit will generate a fault. The output voltage will be shut off and the red "FAULT" indicator will be illuminated. The fault can be cleared by cycling the AC power.

Electrical Specifications

All measurements taken at 25°C, 120 VAC, 60 Hz

Input Specifications (All ISP Supplies)

Specification	Typ.	Max.	Units
AC Input Voltage (-120)	120	132	VAC
AC Input Voltage (-240)	240	264	VAC
Input Frequency	50 - 60	—	Hz

Output Specifications

ISP200-4

Specification	VDC Out	Current
No Load Output	41	0 A
Continuous Output Rating (Half Load)	38	1.5 A
Peak Output Rating	35	3 A

ISP200-7

Specification	VDC Out	Current
No Load Output	70	0 A
Continuous Output Rating (Half Load)	62	1 A
Peak Output Rating	59	2 A

ISP300-4

Specification	VDC Out	Current
No Load Output	42	0 A
Continuous Output Rating (Half Load)	39	3 A
Peak Output Rating	37	6 A

ISP300-7

Specification	VDC Out	Current
No Load Output	68	0 A
Continuous Output Rating (Half Load)	63	2 A
Peak Output Rating	59	4 A

Replacement Fuses



ISP200: 2A Slow Blow - 120 VAC

ISP200: 1A Slow Blow - 240 VAC



ISP300: 4A Slow Blow - 120VAC

ISP300: 2A Slow Blow - 240VAC

Thermal Specifications

Operating Temperature..... 0 to 50°C

Storage Temperature -40 to +125°C

Max. Heatsink Temperature..... +70°C

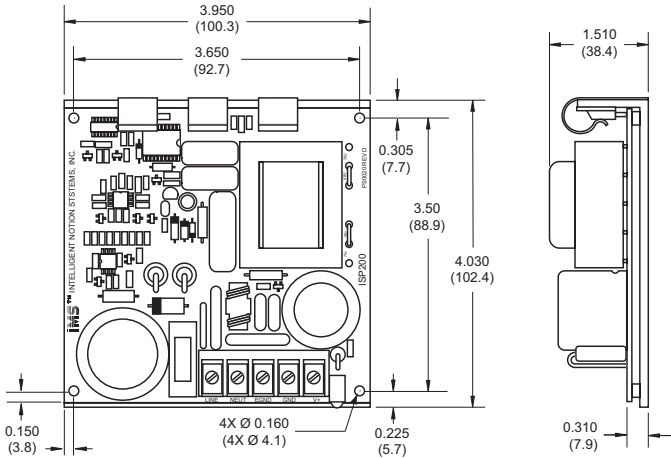
Pin Functions

Pin #	Function
1	+V (+45/+75 VDC Output)
2	GND (DC Ground)
3	EGND (Earth Ground)
4	NEUT (AC Neutral)
5	LINE (AC Line)

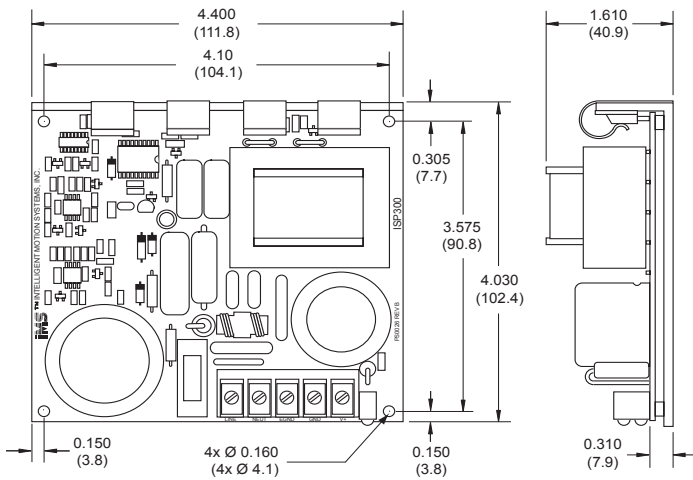
Mechanical Specifications

Dimensions in Inches (mm)

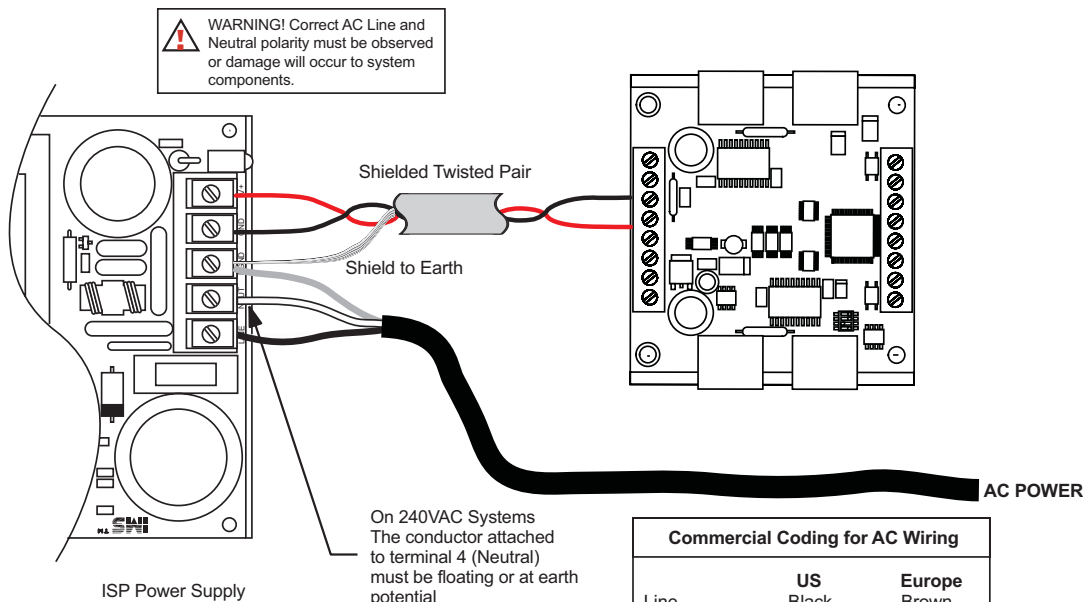
ISP200-4/7



ISP300-4/7



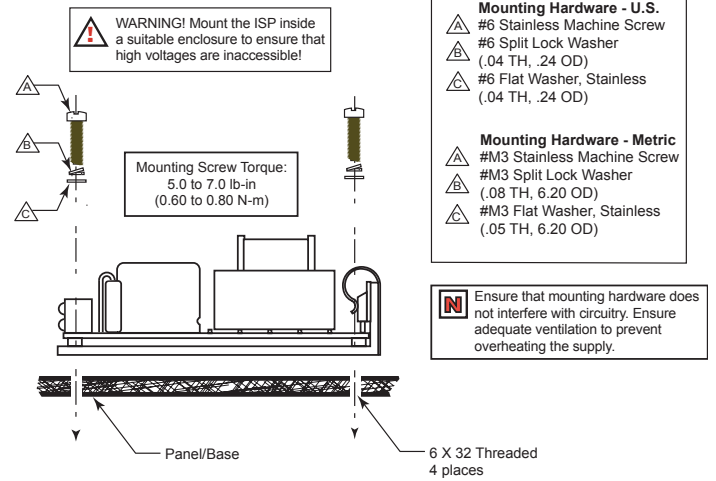
Connecting



Mounting Recommendations

Allow for adequate air circulation. Ensure that the mounting hardware does not interfere with the circuitry. The unit must be mounted to a flat surface that extends beyond the edges of the unit.

NOTE: Mounting hardware is not included.



Recommended IMS Drivers

The ISP Series supplies are recommended with the following IMS Drivers:

ISP200-4

IB462, IB463, IB462He, IB104, IM481H Plus, IM483 (I/IE), IM483H, IM805H, IM805, MDrive17Plus (All models), MicroLYNX 4

ISP200-7

IB104, IB106, IB1010, IM805, IM805H, IM1007 (I/IE), MDrive23Plus, MicroLYNX 7

ISP300-4

IB462, IB463, IB462He, IB104, IM481H Plus, IM483 (I/IE), IM483H, IM805H, IM805, MDrive17Plus (All models), MDrive23Plus, MicroLYNX 4

ISP300-7

IB104, IB106, IB1010, IM805, IM805H, IM1007 (I/IE), MDrive23Plus, MDrive34Plus, MicroLYNX 7

Commercial Coding for AC Wiring

	US	Europe
Line	Black	Brown
Neutral	White	Blue
Earth	Green	Green/Yellow