

## PSH100 Series

### Installation Instructions

## Application

These general-purpose power supplies can be used to fulfill all the 120Vac, 24 Vac (Class 2), and 24 Vdc power requirements needed inside a building automation (BAS) panel, industrial enclosure, or other general purpose

electrical enclosure, in addition to on/off control, equipment overcurrent protection, power indication, high/low voltage separation, and convenience receptacles. They are also useful for many applications outside of BAS.

### PSH100A SERIES

AC POWER SUPPLY  
Enclosed Single 100 VA Power Supplies, 120 to 24 Vac



#### SPECIFICATIONS

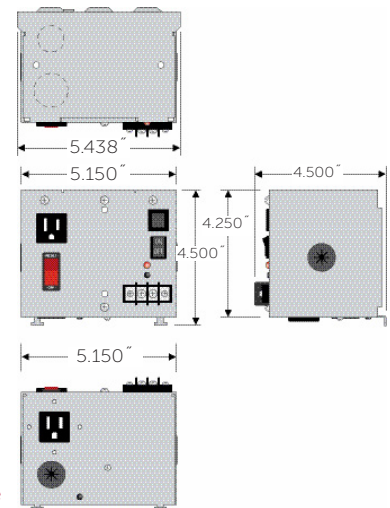
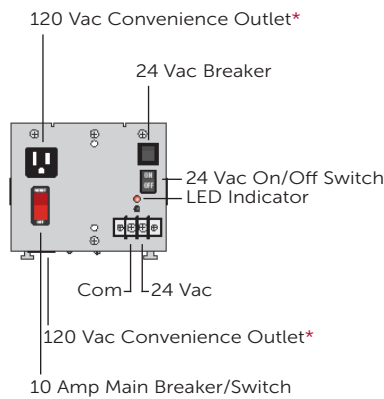
Transformer: One 100 VA Split-Bobbin  
Over Current  
Protection: Circuit Breaker

Input Wires: "B10" Models Only  
Input Power Wires  
BLK: 120 Vac  
WHT: Neutral  
GRN: Ground

All Other Models Receptacle Wires  
Primary Wires  
BLK: 120 Vac  
WHT: Neutral  
GRN: Ground

Output Wires: "B10" Models Only "W" Models Only  
Auxiliary Output Transformer Output  
BLU: 120 Vac  
WHT/YEL: 24 Vac  
WHT/BLU: Common

Frequency: 50/60 Hz  
24 Vac ON/OFF: On / Off Switch & Breaker  
Main Breaker ON/OFF: **Switch / Breaker (10 Amp)**  
**(Kills power to entire unit: Receptacles, Aux. Output, and Transformer)\***  
Approvals: Total Combined Output 9A  
Class 2 UL Listed, UL916, UL508  
Dimensions: C-UL, CE, RoHS  
Weight: 4.500" x 5.438" x 4.500"  
4.600 lbs.



Notes:  
» \*Move internal jumper to "HOT" position if you wish  
outlets to always be hot otherwise outlets will be switched by main breaker.

#### PSH100A Series Selection Guide

MODEL #	120 VAC RECEPTACLES	AUX OUTPUT WIRE	MAIN BREAKER ON INPUT POWER	SECONDARY CONFIGURATION
PSH100A	•			External Terminal Strip
PSH100AN				External Terminal Strip
PSH100ANW				Internal Wires
PSH100AW	•			Internal Wires
PSH100AB10*	•	•	10 Amp Switch / Breaker	External Terminal Strip
PSH100ANB10		•	10 Amp Switch / Breaker	External Terminal Strip
PSH100ANWB10		•	10 Amp Switch / Breaker	Internal Wires
PSH100AWB10*	•	•	10 Amp Switch / Breaker	Internal Wires

To order UL508, add "-IC" to end of model number.

## Installation

### When installing this Product...

1. Read these instructions carefully. Failure to follow them could damage the product or cause a hazardous condition.
2. Check the product ratings and ensure that the product is suitable for your application.
3. Installer must be a trained, experienced service technician.

4. After installation is complete, perform a voltage check as provided in these instructions.

### CAUTION

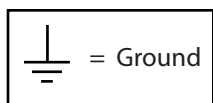
RISK OF ELECTRICAL SHOCK - MORE THAN ONE DISCONNECT MAY BE REQUIRED TO DE-ENERGIZE THE DEVICE BEFORE SERVICING.

### CAUTION

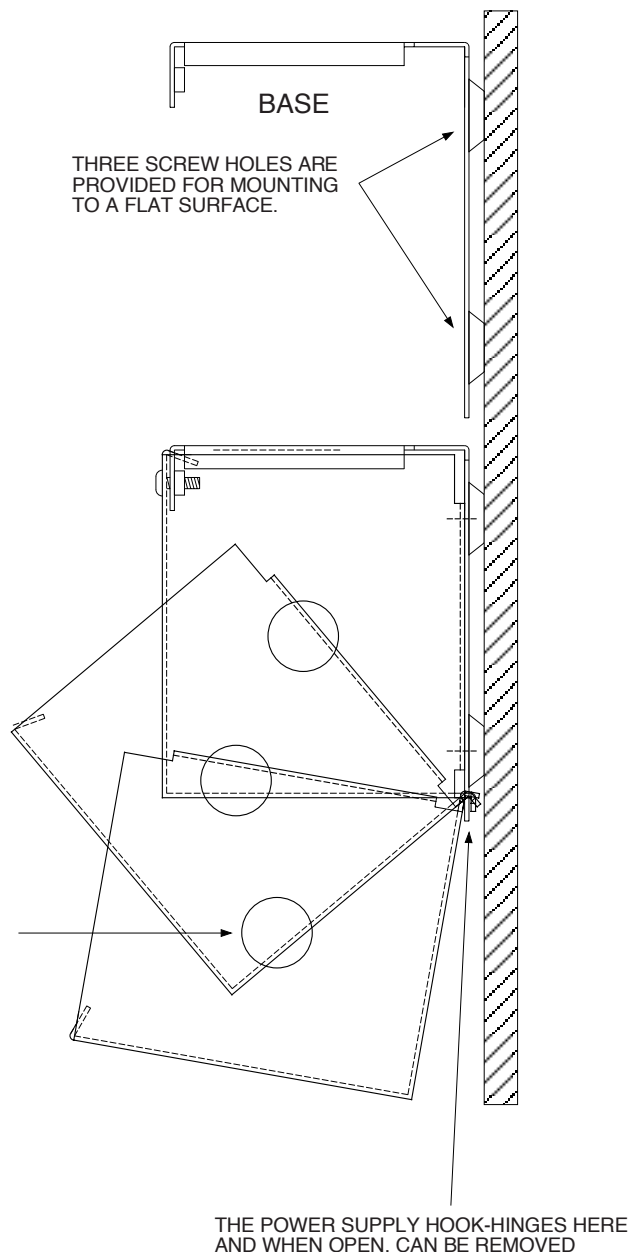
REMOVAL OF COVER OR ACCESS PLATE (IF PRESENT) EXPOSES HIGH VOLTAGE.

# Mounting

1. Remove the front of the power supply from the base by extracting the two screws in the top front of the power supply.
2. Mount the base of the power supply by using the provided screw holes to any flat surface.
3. The front of the power supply can then be reconnected to the base (after mounting) by using the hook hinges at the bottom of the base.
4. Let the front of the base hang free from the hinges while making the appropriate wiring connections. (see wiring instructions)
5. Close the power supply by hinging upwards and replacing the screws from the top front of the power supply.



WIRES CAN ENTER THE HOUSING THROUGH OPENINGS ON EACH SIDE AND BOTTOM THAT ARE PROVIDED WITH UL RECOGNIZED CAPS TO ALLOW ENTRANCE OF JACKETED WIRES (OR CAN BE REMOVED FOR CONNECTION OF 1/2" CONDUIT).



# Wiring

All wiring must comply with local codes and ordinances. Disconnect power before making wiring connections to prevent electrical shock or equipment damage.

**Note:** Use copper wire, 18 AWG minimum with insulation rated for 60°C minimum.

Input Power:

Line voltage 120 Vac = Black wire

Neutral = White wire

Ground = Green wire

Line voltage can be brought into power supply from 1 of 3 options:

1. Bring wiring into one of two sized knockouts on the top of the base of the power supply while the front of the power supply is hinged down from its hinge hooks. Be sure to use proper connections for available power supply and make wire connections appropriately using wire nuts (see Fig. 1).

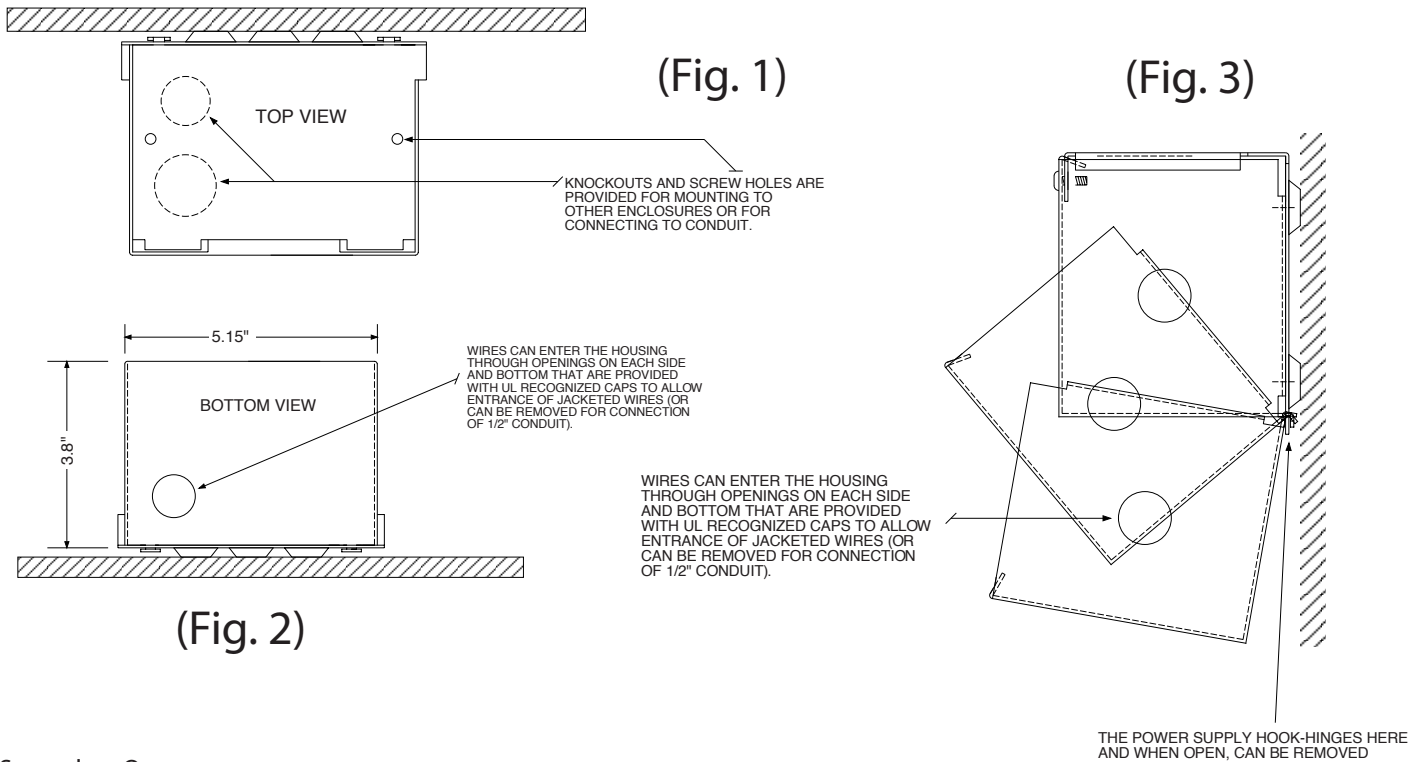
<p><b>TRANSFORMER:</b> 25Vac, 100VA, Class 2 (Suitable for 24 Vac applications)</p> <p><b>TRANSFORMER PRIMARY:</b> COM 120 BLK WHT Insulate unused wires separately.</p> <p><b>INPUT POWER:</b> Power supplies with "B" in model number 120Vac only: Line black wire, Neutral white wire, Ground green wire. Otherwise, wire directly to transformer and outlets.</p>
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# Wiring (cont.)

2. Bring wiring into one the two openings on the side of the power supply while the front of the power supply is hinged down from its hinged hooks. Star grommet may be removed if using conduit for the connection. Be sure to use correct leads for available power supply and make wire connections appropriately using wire nuts (see Fig. 2).

3. Bring wiring into opening on the bottom of the power supply and then hang the power supply on the hook hinges of the base. Star grommet on bottom can be removed if using conduit for the connection. Be sure to use correct leads for available power supply and more wire connections appropriately using wire nuts (see Fig. 3).

**Note:** All field wire leads are intended for installation inside the enclosure.



Secondary Output:

If terminal strip is present on the front of the power supply, raise the power supply back from its hinged position and reapply screws to hold power supply into position. Make appropriate secondary connections to the 25 Vac control circuit by connecting load wires to the terminal strip.

Use center terminals  
(If terminal strip present)



**CONVENIENCE RECEPTACLES:**  
(If present) 120 Vac, 15A max. each  
(May be current limited less than 15A.)  
Power Supplies with "B" near end of model number:  
Move internal jumper to "ALWAYS HOT" position if you wish outlets to always be hot otherwise outlets will be switched by main breaker.

**SECONDARY:**  
25 Vac 100VA, On terminal strip (if present); otherwise use white/yellow (25 Vac) & white/blue (COM) wires inside (run outside enclosure if necessary).

If power supply has no terminal strip, leave power supply in lowered position on hinges and make appropriate wire connections in the inside wiring compartment of the power supply by using wiring nuts. Use white/yellow (25 Vac) and white/blue (COM) wire inside.

# Voltage Check

After installation is complete, turn on power supply and perform a voltage check:

1. Place controlled equipment in operation and observe through one complete cycle.
2. Using a voltmeter, check for proper primary and secondary voltages.
3. If voltage readings are incorrect, be sure primary voltage connections are made correctly.
4. Measure voltage again:
  - a. If correct primary voltage is measured and secondary voltage is significantly less than the voltage shown on the regulation curves, transformer winding is damaged. Replace transformer and repeat checkout procedures.
  - b. If primary voltage is 0V, be sure power supply is connected correctly or repair, if necessary. Repeat checkout procedures.

