

PRICE: \$25.00

**J SERIES**  
**INDUSTRY STANDARD**  
**SWITCHING POWER SUPPLIES**

Manual No. J-293-0

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**UNIPOWER**  
CORPORATION

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## TABLE OF CONTENTS

<u>SECTION</u>	<u>TOPIC</u>	<u>PAGE NO.</u>
1.0	Introduction	1
2.0	Safety Warnings	1
3.0	Warranty Policy	3
4.0	Unpacking and Inspection	3
5.0	Description of Operation	3
6.0	Mechanical Description	4
7.0	Table of Standard Models & Outputs	7
8.0	Description of Features and Options	8
9.0	Operating Information	9
10.0	Installation	12
11.0	Maintenance	13
12.0	Power Supply Setup and Testing	13
13.0	Trouble Shooting Guide	14
Appendix	J Series Product Data	

## LIST OF ILLUSTRATIONS

<u>FIG. NO.</u>	<u>TITLE</u>	<u>PAGE NO.</u>
1	J Series Power Supply	2
2	J Series Block Diagram	2
3	500, 800, 1200 Watt Single Output	5
4	500 Watt Multi-Output	6
5	Table of Mating Plugs and Pins	11
6	Input and Output Connections	11

## **J SERIES OPERATING MANUAL**

### **1.0 INTRODUCTION**

- 1.1 This Operating Manual should be read through carefully before installing and operating the J Series switching power supplies.
- 1.2 The J Series is a product line of 500 through 1200 watt single output and 500 watt multiple output switching power supplies. These units feature the industry standard 5 x 8 inch case format. See Fig. 1. The AC inputs are jumper-selectable for 120VAC or 220-240VAC operation. The series is safety agency UL recognized and certified by CSA and TUV.

The J Series incorporates a number of important features and options such as current sharing, N + 1 redundancy, remote sensing, input EMI filter, electronic inrush current limiting, thermal protection and jumper selectable 120/220-240VAC operation. Control and supervisory signals include high and low margining, output inhibit and power fail. For a complete description and specifications see the J Series product data in the Appendix.

### **2.0 SAFETY WARNINGS**

- 2.1 This switching power supply has hazardous external and internal voltages. It should be handled, tested and installed only by qualified technical persons who are trained in the use of power supplies and are well aware of the hazards involved.
- 2.2 The AC input terminals are at hazardous voltage potentials. Do not touch this area when AC power is applied.
- 2.3 When operating this power supply, the AC input ground terminal must be connected to safety ground to minimize electrical shock hazard and to ensure low EMI (electromagnetic interference).
- 2.4 The internal voltages are at hazardous potentials. The power supply cover should not be removed. There are no user-serviceable components in this unit. Removing the cover of the power supply will void the warranty.

# J SERIES

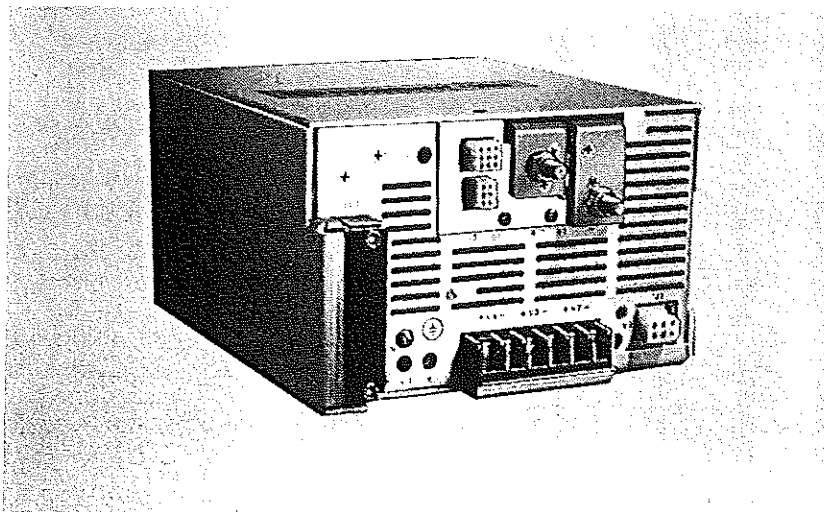


Figure 1. J Series Power Supply

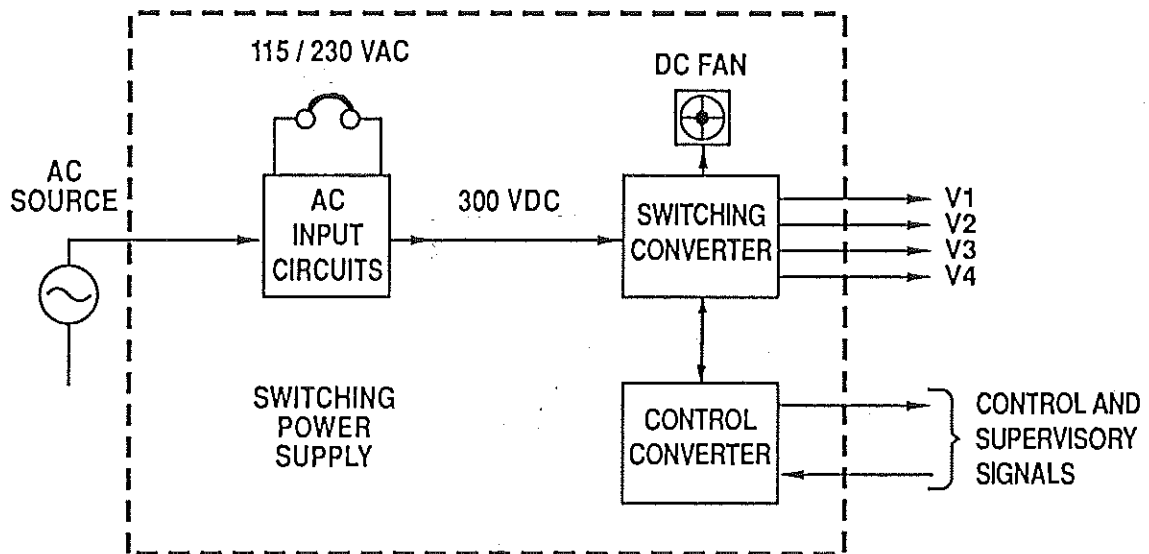


Figure 2. J Series Block Diagram

## J SERIES

### 3.0 WARRANTY POLICY

- 3.1 UNIPOWER Corporation warrants its power supplies for two (2) years from date of shipment against defects in materials and workmanship. UNIPOWER's liability under this warranty is limited to the satisfactory repair or replacement, at its option, of the defective product which has not been damaged through accident, misapplication, negligence, or unauthorized repair. UNIPOWER will in no case be liable for special or consequential damages of any nature. This warranty is extended directly by the manufacturer to the buyer and is the sole warranty applicable.

To exercise this warranty, the buyer must contact our factory (or one of our authorized service centers throughout the world) to obtain a Return Material Authorization (RMA) number and shipping instructions. Products returned under this warranty must be shipped freight prepaid and include the RMA number. Returned units will be shipped prepaid from UNIPOWER Corporation or its authorized service center.

### 4.0 UNPACKING AND INSPECTION

- 4.1 This J Series Power Supply was carefully tested, inspected and packaged for shipment from our factory. Upon receipt of the unit it should be carefully unpacked and inspected for any damage in shipment. The final acceptance test report is included with each power supply.
- 4.2 If there is evidence of damage, do not attempt to test the unit. The freight carrier should be notified immediately and a claim for the cost of the power system should be filed with the carrier for direct reimbursement. Be sure to include the model and serial number of the damaged unit in all correspondence with the freight carrier. Also save the shipping carton and packing materials as evidence of damage for the freight carrier's inspection.
- 4.3 UNIPOWER Corporation will cooperate fully in case of any shipping damage investigation.
- 4.4 Always save the packing materials for later use in shipping the unit. Never ship the power system without proper packing.

### 5.0 DESCRIPTION OF OPERATION

- 5.1 **Main Output.** The J Series are auxiliary output type modular switching power supplies. See Fig. 2. The main output has an isolated feedback circuit which is used to regulate the output voltage. This is done by means of pulse-width modulation using bipolar transistor switches operating at 20kHz.

## J SERIES

- 5.2 **Auxiliary Outputs.** In the multi-output models, auxiliary outputs are derived from additional windings on a high-frequency power transformer. Each winding has an auxiliary output circuit which rectifies, filters, and regulates the 20kHz pulses to produce an isolated, regulated output. The auxiliary outputs employ switching or linear regulators to achieve tight regulation. Up to three auxiliary output modules are available in the J Series.
- 5.3 **AC Input.** The front end of the power supply incorporates an input EMI filter to suppress line noise and high frequency transients both from the AC power line and from the power supply to the line. The AC input voltage range is jumper selectable. Electronic inrush current limiting controls the initial AC input current on power up.

### 6.0 MECHANICAL DESCRIPTION

- 6.1 Front and rear views of the J Series cases are shown in Figs. 3 and 4. The models are designated as follows:

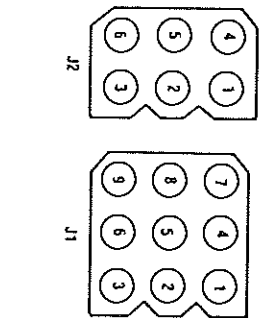
Case 50	Single Output	500, 800, 1000 & 1200 Watts
Case 50	Multi Output	500 Watts

- 6.2 The main output (V1) is at two terminal lugs on the front panel. Connections are made by means of No. 5/16-18 studs. To the left of these terminals is the V1 adjustment potentiometer which adjusts the main output voltage  $\pm 5\%$ .
- 6.3 AC input connections are made to a barrier terminal strip with No. 6-32 screws. This terminal strip is located on the front panel of all models.
- 6.4 Auxiliary DC output connections are made to a barrier terminal strip on the multi-output models with No. 6-32 screws. Voltage adjustment potentiometers are located on the front panel for each output.
- 6.5 On the front panels of all models are Molex connectors for the control and supervisory signal inputs and outputs. Figs. 3 and 4 show the pin connections for these connectors.

# J SERIES

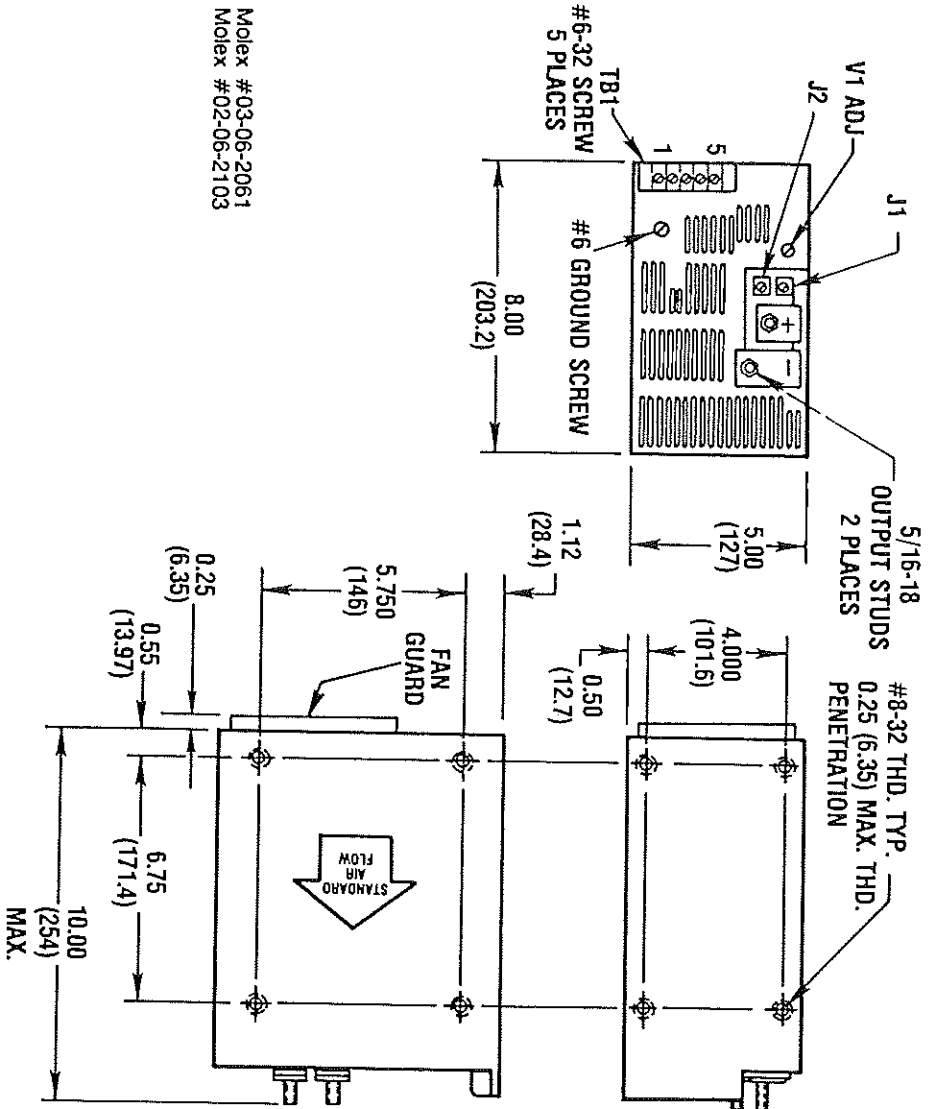
J1	
Pin	Signal
1	Current Share
2	OVP Actuated
3	DC OK
4	No Connection
5	No Connection
6	No Connection
7	Current Monitor
8	- Sense
9	No Connection

J2	
Pin	Signal
1	+ Sense
2	Hi Margin
3	Lo Margin
4	- Sense
5	Power Fail
6	Remote Inhibit



**Mating Connectors**  
 J1 Mating Plug Molex #03-06-2092  
 Male Pins for J1 Plug Molex #02-06-2103

J2 Mating Plug Molex #03-06-2061  
 Male Pins for J2 Plug Molex #02-06-2103



ALL DIMENSIONS IN INCHES (mm)

Figure 3. 500, 800, 1000 and 1200 Watt Single Output

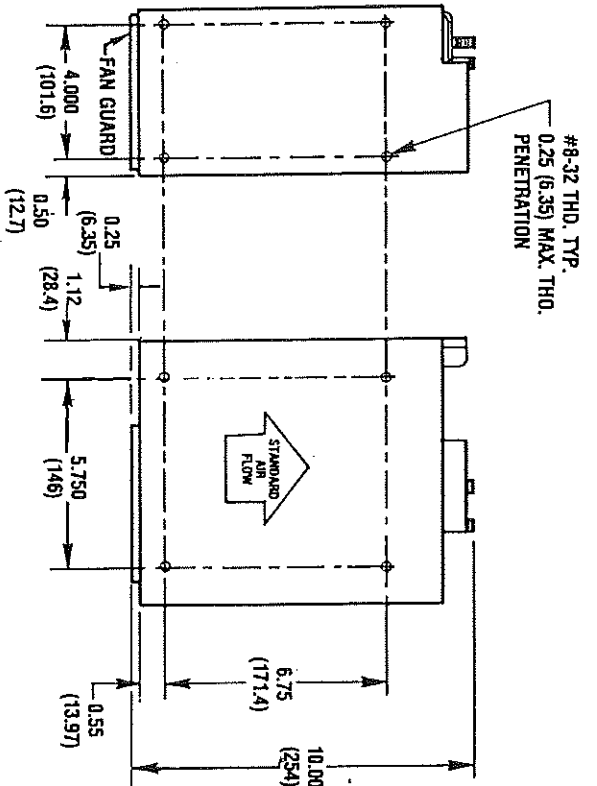
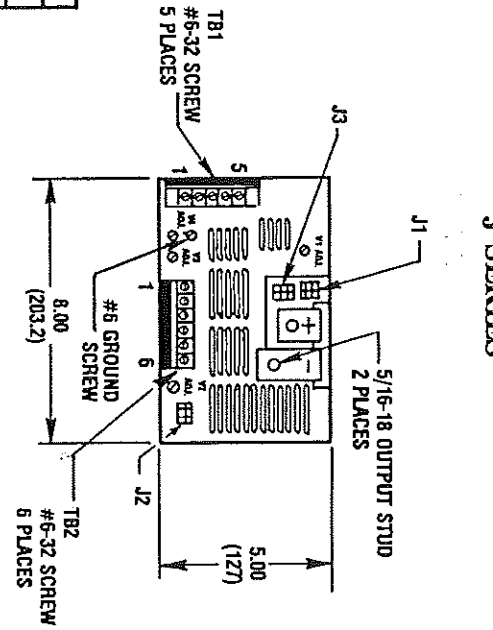


# J SERIES

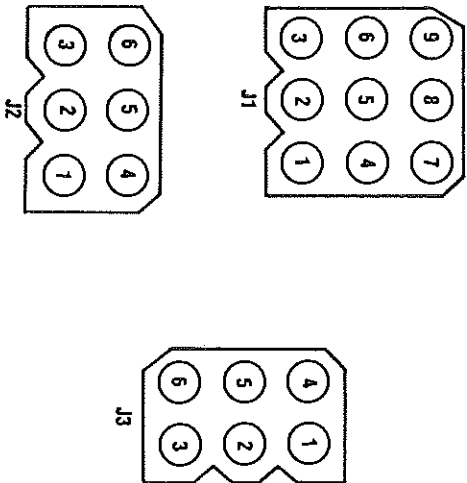
Pin	Signal
1	Current Share (V1)
2	OVP Actuated
3	DC OK (V1)
4	No Connection
5	No Connection
6	No Connection
7	Current Monitor (V1)
8	- Sense (V1)
9	No Connection

Pin	Signal
1	+ Sense (V2)
2	- Sense (V2)
3	+ Sense (V3)
4	- Sense (V3)
5	+ Sense (V4)
6	- Sense (V4)

Pin	Signal
1	+ Sense (V1)
2	Hi Margin (V1)
3	Lo Margin (V1)
4	- Sense (V1)
5	Power Fail
6	Remote Inhibit



ALL DIMENSIONS IN INCHES (mm)



Term	Connection
1	AC IN NEUTRAL
2	AC IN LINE
3	208/230 Strapping
4	115 Strapping
5	

Term	Connection
1	+ V4
2	- V4
3	+ V3
4	- V3
5	+ V2
6	- V2

Mating Connectors	
J1 Receptacle	Molex #03-06-1091
J1 Plug	Molex #03-06-2092
J2 Receptacle	Molex #03-06-1121
J2 Plug	Molex #03-06-2122
J3 Receptacle	Molex #03-06-1061
J3 Plug	Molex #03-06-2061

Figure 4. 500 Watt Multi-Output

## J SERIES

### 7.0 TABLE OF STANDARD MODELS AND OUTPUTS

The following table lists all the standard models and outputs that are available with the J Series.

#### STANDARD MODELS (Consult factory for non-standard configurations).

MAX WATTS <sup>1</sup>	MODEL NUMBER <sup>2</sup>	OUTPUT V1	OUTPUT V2	OUTPUT V3	OUTPUT V4	CASE
500	JG 1000	2V160A				50
	JG 2000	5V100A				
	JG 3000	12V42A				
	JG 4000	15V33A				
	JG 5000	24V21A				
	JG 6000	28V18A				
	JG 7000	48V10A				
800	JM 1000	2V180A				50
	JM 2000	5V160A				
	JM 3000	12V67A				
	JM 4000	15V54A				
	JM 5000	24V34A				
	JM 6000	28V29A				
	JM 7000	48V17A				
1000	JN 1000	2V210A				50
	JN 2000	5V200A				
	JN 3000	12V83A				
	JN 4000	15V66A				
	JN 5000	24V42A				
	JN 6000	28V36A				
	JN 7000	48V21A				
1200	JP 1000	2V240A				50
	JP 2000	5V240A				
	JP 3000	12V100A				
	JP 4000	15V80A				
	JP 5000	24V50A				
	JP 6000	28V42A				
	JP 7000	48V25A				
500	JG 2330	5V80A	12V10A	12V5A		50
	JG 2440	5V80A	15V10A	15V5A		
500	JG 2133	5V80A	2V10A	12V5A	12V3A	50
	JG 2233	5V80A	5V10A	12V5A	12V3A	
	JG 2332	5V80A	12V10A	12V5A	5V3A	
	JG 2335	5V80A	12V10A	12V5A	24V3A	
	JG 2442	5V80A	15V10A	15V5A	5V3A	

## J SERIES

### 8.0 DESCRIPTION OF FEATURES AND OPTIONS

FEATURE/OPTION	DESCRIPTION
Jumper-Selectable AC Input	A jumper connection on the AC input terminal strip selects either of the two AC input ranges, 90 to 132VAC or 180 to 264VAC.
Isolated Outputs	All DC outputs are floating and isolated from all other outputs. They can be connected as + or - outputs.
Electronic Inrush Current Limiting and Soft Start	This triac circuit safety limits the input current when the power supply is first turned on. The output voltage rises smoothly to its specified value.
Safety Agency Approvals	All J Series models are labelled with the appropriate safety agency logos or labels and are recognized or certified to UL 478, CSA 22.2 and TUV approved to VDE 0806.
EMI Input Filter	The input filter suppresses conducted noise on the AC line. The filter meets FCC level A and VDE 0871 level A requirements for conducted noise.
Thermal Protection	The power supply latches off when the internal temperature reaches an excessive value. The supply recovers automatically.
Output Current Limiting	Current limiting protects each output and the main converter from overload conditions. Current limiting and short circuit protection limits each output and instantaneously shuts down the inverter which then operates in a cycling mode. Overload protection is continuous, without damage, and recovery is automatic when the overload is removed.
Overvoltage Protection	All outputs are protected from fault conditions in the power supply. OVP shuts down all outputs when activated. The outputs are reset by cycling the AC input off and then on.
DC "OK" Signal (Option D)	A TTL logic LO indicates that the main output voltage is outside of $\pm 5\%$ tolerance.
No Load Operation, Single Output Models	The single output models may be operated down to zero load current.

## J SERIES

FEATURE/OPTION	DESCRIPTION
Current Monitor, Main Output	Provides an output voltage proportional to the load current of the main (V1) output.
Current Share, Main Output (Option H)	The main (V1) output will share current with other identical main outputs when the current share terminals are connected together.
Reverse Air Flow (Option R)	Standard air flow is from fan to front panel of the power supply. This option reverses the air flow.
Remote Inhibit	A TTL logic LO, or switch closure, inhibits (turns off) all outputs.
Remote Margin	A TTL logic LO, or switch closure to either HI or LO margin inputs will change the main output (V1) by +5% (HI margin) or -5% (LO margin) from nominal value.
OVP Actuated	A TTL logic LO indicates that the output overvoltage protection (OVP) has been actuated.
Thermal Warning	A TTL logic LO is provided at least 2 msec. before the main output (V1) drops below nominal value upon thermal shutdown.
Power Fail	Upon loss of AC input, a TTL logic LO is provided at least 2 msec. before the main output (V1) drops 5% below its nominal value.

### 9.0 OPERATING INFORMATION

9.1 **Input Voltage.** The J Series switching power supplies operate on standard 120VAC (90 to 132VAC) or 220-240VAC (180 to 264VAC) input voltages. Jumper connections on the AC terminal strip TB1 permit the user to set the AC input range to the desired one. The correct jumper connections are shown in Figs. 3 and 4. **Note that the jumper must be set in the proper position before plugging the unit into AC power.**

9.2 **Outputs.** The main output (V1) power connections are made to 5/16-18 studs on nickel-plated brass bus bars. The left bus bar is positive and the right one negative.

Auxiliary output connections are made to barrier terminal strip TB2 with no. 6-32 screws. The connecting wires for all outputs should be sized to carry the rated

## J SERIES

output current plus 30%. Connecting wires or lugs must be clean and securely connected to the terminals to reduce contact resistance. All outputs should have a 0.1 $\mu$ F ceramic capacitor and 10 $\mu$ F electrolytic capacitor in parallel across each output at the backplane, connection point, or point of load to prevent noise pickup.

- 9.3 **Output Power.** The J Series multi-output models have maximum ratings of 500 watts. However, the ratings of the individual outputs, when totalled, may exceed this value. See the Standard Models table in Section 7. The continuous output power from all outputs **must not** exceed the output rating of the given power supply model.

The maximum continuous output power of the power supply may be drawn at up to 50°C ambient temperature. Above 50°C, the output must be derated at 2.4%/°C. The maximum operating temperature is 71°C.

- 9.4 **Remote Sensing.** Remote sense connections for the main output are made to J2 for single output models and J3 for multi output models. For auxiliary outputs the connections are made to J2.

The remote sense feature is used to regulate the output voltage at the point of load. The + Sense is connected to the + output at the load, and the – Sense is connected to the – output at the load. The sense leads should be a twisted pair to minimize noise pickup. The outputs can compensate for a total voltage drop in the power leads up to 0.5 V, or 0.25 V on each lead, for the main output and for half these amounts for the auxiliary outputs. Sense leads can be #22 or 24 AWG wire, but should not exceed 10 feet (3 meters) in length. If remote sensing is not required, the sense leads should be connected to the proper output terminals at the DC outputs.

- 9.5 **Control and Supervisory Signals.** All control and supervisory signals are accessible at the Molex receptacles on the front panel of the power supplies. Some of the pins are for control inputs and others are for warning outputs. These signals are referenced to the – Sense lead. The inputs and outputs that are used must have external 0.1 $\mu$ F ceramic capacitors across them to prevent noise pickup. The mating plugs and pins are shown in the table in Fig. 5.

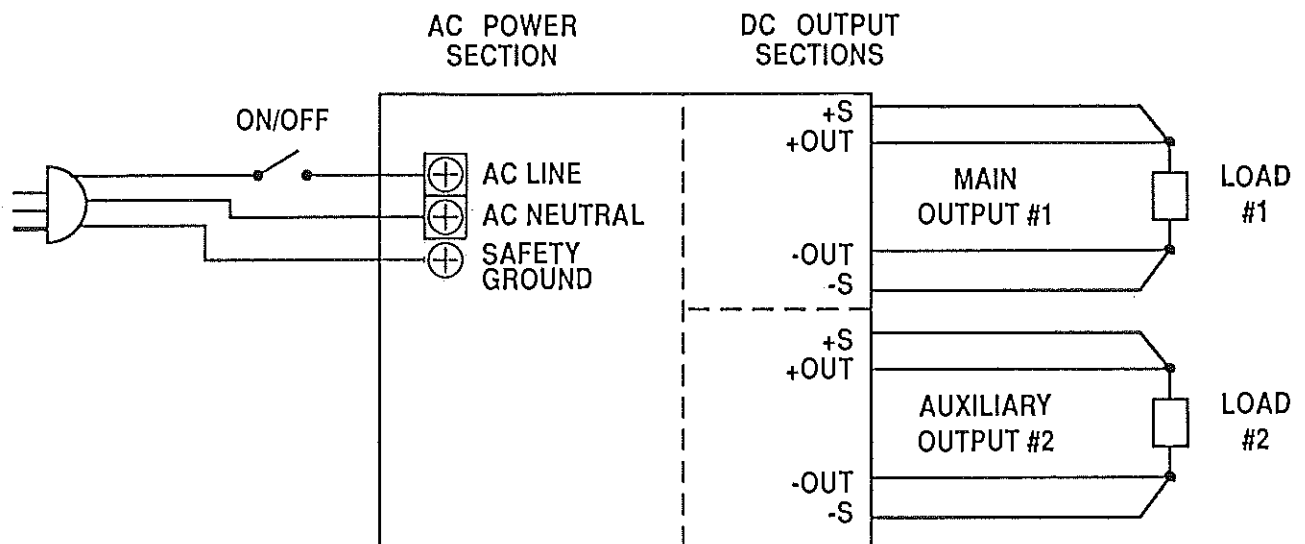
- 9.6 **Current Sharing (Paralleled Outputs).** Two or more main outputs may be connected in parallel to current share if they are identical outputs in both voltage and current rating. The current share function is implemented by first adjusting the output voltages which are to be current shared within  $\pm 2\%$  of each other. For best performance adjust to  $\pm 1\%$ . This is required so that the output with the lowest voltage will be within the capture range of the output with the highest output voltage. Then with the power off, the outputs are connected in parallel with all remote sense leads connected, and the current share terminals are connected together. After this the output voltages should not be adjusted since

## J SERIES

### MATING PLUGS AND PINS

<b>Single Output, 500W to 1200W, Case 50</b>
J1 mating plug: Molex 03-06-2092 J2 mating plug: Molex 03-06-2061 Male pins are all 02-06-2103
<b>Multi Output, 500W, Case 50</b>
J1 mating plug: Molex 03-06-2092 J2 mating plug: Molex 03-06-2122 J3 mating plug: Molex 03-06-2061 Male pins are all 02-06-2103

**Figure 5. Table of Mating Plugs**



NOTE: Remote sense leads (+S & -S) should be twisted to minimize noise pickup.

**Figure 6. Input and Output Connections**

## J SERIES

it will cause the variation between outputs to exceed the capture range and result in unstable operation. AC power may then be applied. The current sharing accuracy of each output is within  $\pm 10\%$  of its output rating.

- 9.7 **Output Voltage Adjustment.** The main output voltage and all auxiliary output voltages are independently adjustable by means of potentiometers on the front panel. No output should be continuously operated outside its nominal range of  $\pm 5\%$ , and the total output power of all outputs must not exceed the maximum rating of the power supply.
- 9.8 **N + 1 Redundancy.** This feature is a type of parallel operation for main outputs only. Redundancy is achieved by having one more output in parallel operation than needed to supply the load power. If two identical outputs in parallel can provide the total load power, then three outputs are used, each providing approximately one third of the total current. If one output fails, the other two automatically take up the total load current, sharing it approximately 50/50.

### 10.0 INSTALLATION

- 10.1 **Mounting.** See Figs. 3 and 4. The J Series has two mounting surfaces, one on the bottom and one on the side, each with four threaded mounting inserts. The inserts accept no. 8-32 screws with maximum penetration of 0.25 inch (6.4mm). Maximum torque on these screws is 19 in.-lbs.
- 10.2 **Cooling.** The J Series is cooled by means of an internal DC, ball-bearing fan. To insure proper cooling, the power supply requires a minimum clearance of 1 inch (25mm) between all air intakes and outlets, and other surfaces. Both standard and optional reverse air cooling (Option R) are available.
- 10.3 **Input Connections.** AC input connections are made to a five-terminal barrier strip. The barrier strip has no. 6-32 screws. A three-wire AC line and plug must be used for the AC power connection with proper connection made to line, neutral and safety ground terminals. The ground screw is located on the front panel of the power supply near the AC terminal strip. The proper line cord wire size must be used: No. 14 AWG is recommended. Maximum torque on the screws is 9 in.-lbs.
- 10.4 **Output Connections.** Connections to the main output (V1) are made to nickel-plated, brass bus bars by means of no. 5/16-18 studs. The connections must be secure, and the wires or lugs must be clean to reduce contact resistance. Maximum torque on the 10-32 screws is 30 in.-lbs. The wires must be of correct size to carry the rated output current plus 30%.

## J SERIES

Connections to the auxiliary outputs are to barrier terminal blocks with no. 6-32 screws. The maximum torque on the screws is 9 in.-lbs. The connections should be clean and secure to reduce contact resistance, and the wire size must be able to carry the rated output current plus 30%.

- 10.5 **Control and Supervisory Signal Connections.** These connections are made to Molex connectors. All control and supervisory signals are referenced to the – Sense terminal.

### 11.0 MAINTENANCE

No routine maintenance is required on the J Series power supplies except for periodic cleaning of dust and dirt around the fan intake. A small vacuum nozzle should be used for this. The power supply cover should not be removed; there are no user-serviceable components in the unit.

### 12.0 POWER SUPPLY SETUP AND TESTING

- 12.1 Connect the AC power cord to the AC input barrier terminal strip and ground screw. Be sure to use a three-wire connection to the proper terminals including the safety connection. Do not plug in the AC power cord yet. See Fig. 6.
- 12.2 Connect the remote sense leads, with proper polarity, directly to each output on the front panel of the power supply. See Section 9.4. Make sure that the Inhibit input is open or at a TTL HI. Make sure that the HI and LO Margin inputs are both open. For multi-output models, make sure there is a minimum 10% load on the main output.
- 12.3 Plug the AC power cord into the wall socket and measure each output voltage with a digital voltmeter to see that it is the correct value. Each voltage should be within  $\pm 1\%$  of nominal value as set at the factory. If a more precise value is required, adjust the proper voltage-adjustment potentiometer for the output. A clockwise adjustment increases the output voltage. See Section 9.7. Unplug the AC power cord.
- 12.4 If main outputs are to be current shared (connected in parallel) or connected for N + 1 redundancy, follow the instructions in Sections 9.6 and 9.8.
- 12.5 With the AC input unplugged, connect the desired load to each output and connect the remote sense leads to the load points as described in Section 9.4. Plug the AC power cord into the wall socket and re-check the output voltages at the sense points with a digital voltmeter. These readings should be nearly the same as before, within the regulation specification for the outputs.



## J SERIES

### 13.0 TROUBLESHOOTING GUIDE

13.1 If you encounter difficulty and do not get the proper output voltages, go through the following trouble shooting guide.

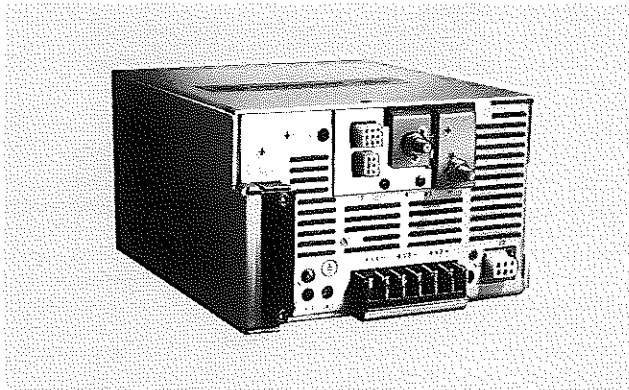
SYMPTOM	POSSIBLE CAUSE	ACTION TO TAKE
No output (all outputs).	No AC input.	Check connection to AC power.
No output (one output).	Shorted output.	Remove short.
No output (all outputs).	AC jumper is connected for 220-240VC. The AC source is 120VAC.	Unplug AC power. Connect AC jumper for 120VAC. Plug in AC power.
No output (all outputs).	AC jumper is connected for 120VAC. The AC source is 220-240VAC.	Unplug AC power. Connect AC jumper for 220-240VAC. Plug in AC power. If there is still no output, the power supply has been damaged and must be returned to the factory for repair.
No output (all outputs).	Oversvoltage protection (OVP) is engaged.	Check OVP Actuated output for a logic LO. Cycle AC input off and then on.
No output (all outputs).	Overtemperature protection is activated.	Check Thermal Warning output for a logic LO. Check to see that fan is operating. Cycle AC input off and then on.
No output (all outputs).	Output is turned off by Remote Inhibit control.	Check to see if Remote Inhibit input is a logic LO. It should be Logic HI, or open.
No output (all outputs).	In current sharing operation, one or more main output sense leads are not connected to the outputs. This causes the power supply to shut down.	Connect all sense leads to outputs.

## J SERIES

SYMPTOM	POSSIBLE CAUSE	ACTION TO TAKE
Output higher than nominal value (any output).	Remote sense leads not connected.	Connect sense leads as instructed in Section 9.4.
Main output higher or lower than nominal value.	HI or LO Margin is activated.	Check HI and LO Margin inputs to make sure they are logic HI or open.
Low output voltage on auxiliary outputs.	Insufficient load on main output (V1).	A 10% minimum load is required on main output.
Fan does not operate.	Main output of multi-output power supply is not loaded.	A 10% minimum load is required on the main output. The fan will not properly operate if the power supply is not loaded.
Noisy output voltages.	External pickup in sense leads.	Twist or shield sense leads and re-route away from noise source. Connect capacitors as instructed in Section 9.2

- 13.2 If none of these actions solves the problem, call the UNIPOWER factory for help and try to resolve the problem over the telephone. If this is not successful, request an RMA (Return Material Authorization) number and return the power supply to UNIPOWER. Be sure to pack the unit carefully in the original packing material, if possible. UNIPOWER will fax a form to be filled out and returned with the unit.

**J SERIES: INDUSTRY STANDARD**  
Single Output, 500-1200 Watts



**KEY FEATURES**

- Industry Standard 5" x 8" Cases
- Power Density To 3.3W/Cubic Inch
- Jumper Selectable 115/230VAC
- Redundant N + 1 Capability
- No Load Operation

**OPTIONS**

- DC "OK" Signal
- Current Share and Current Monitor
- Reverse Air Flow

**OTHER FEATURES**

- Outputs From 2VDC To 48VDC
- Full Output Power To 50°C
- Current Sharing Parallel Operation
- Efficiency To 75%
- Unique Integral Thermal Design
- Rear Mounted DC Ball Bearing Fan
- Soft Start
- Electronic Inrush Current Limiting
- Tight Regulation, Low Noise
- Overload And Overvoltage Protection
- Thermal Warning And Protection
- EMI Input Filter
- Remote Sense, Inhibit, Margin
- AC Power Fail Signal
- 24 Hour Power-Cycle Burn-In At 50°C
- Full Test Data With Each Unit
- Safety Agency Approvals
- Manufactured In U.S.A.
- Two Year Warranty

**SPECIFICATIONS**

Typical at Nominal Line, Full Load and 25°C Unless Otherwise Noted.

**OUTPUT SPECIFICATIONS**

Output Voltage Adjustment Range, All Outputs . . . . . ± 5%  
Line Regulation<sup>1</sup> . . . . . 0.2% or 10 mV, max.  
Load Regulation<sup>2</sup>, NL-FL . . . . . 0.2% or 10 mV, max.  
Ripple and Noise<sup>3</sup> . . . . . 1.0% or 50 mV, max.  
Hold-Up Time . . . . . 20 msec., min.  
Dynamic Response<sup>4</sup> . . . . . 200 µsec., max.  
Temperature Coefficient . . . . . 0.02%/°C, max.  
Overvoltage Protection . . . . . Power Shutdown  
Remote Sense<sup>5</sup> . . . . . Standard

**INPUT SPECIFICATIONS**

Voltage Range, User Selectable (Jumpers) . . . . . 90 to 132 VAC  
180 to 264 VAC  
Input Frequency . . . . . 47 to 63 Hz  
Inrush Current: 500W . . . . . 30A Peak  
800 W . . . . . 40A Peak  
1000W, 1200W . . . . . 75A Peak  
Input EMI Filter, Conducted . . . . . FCC & VDE Class A  
Input Protection . . . . . Internal Fuse

**GENERAL SPECIFICATIONS**

Efficiency . . . . . 70 to 75%  
Switching Frequency . . . . . 20 KHz  
Input To Output Isolation . . . . . 3000 VAC

**ENVIRONMENTAL SPECIFICATIONS**

Operating Temperature . . . . . 0°C to 71°C  
Derating 50°C to 71°C . . . . . 2.4%/°C  
Storage Temperature Range . . . . . - 40°C to + 85°C  
Cooling . . . . . Ball Bearing Internal Fan  
Vibration . . . . . Per MIL-STD 810D, Method 514-3, Cat-I, Proc I  
Shock . . . . . Per MIL-STD 810D, Method 516-3, Proc II, IV, VI

**PHYSICAL SPECIFICATIONS**

Case Material . . . . . Aluminum  
Dimensions . . . . . See Case Drawings  
Weight:  
500W Single 12 lbs. (5.4 kg.) 1200W Single 15 lbs. (6.8 kg.)  
800W Single 12 lbs. (5.4 kg.)

**NOTES:**

1. Whichever figure is greater. Measured over AC input range.
2. Whichever figure is greater. Remote sense must be connected.
3. Whichever figure is greater. 20 MHz bandwidth.
4. 4% maximum deviation with recovery to within 1% for 25% step change at 75% rated load.
5. 0.25V maximum load cable voltage drop



UL 478



CSA 22.2,  
No. 220



IEC 950

Website: <http://www.unipower-corp.com>  
E-mail: [sales@unipower-corp.com](mailto:sales@unipower-corp.com)

## STANDARD MODELS (Consult factory for non-standard configurations).

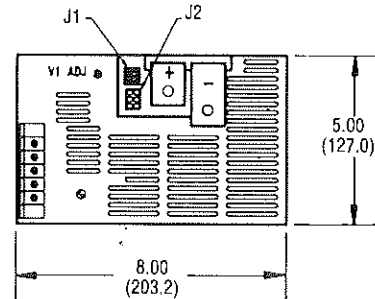
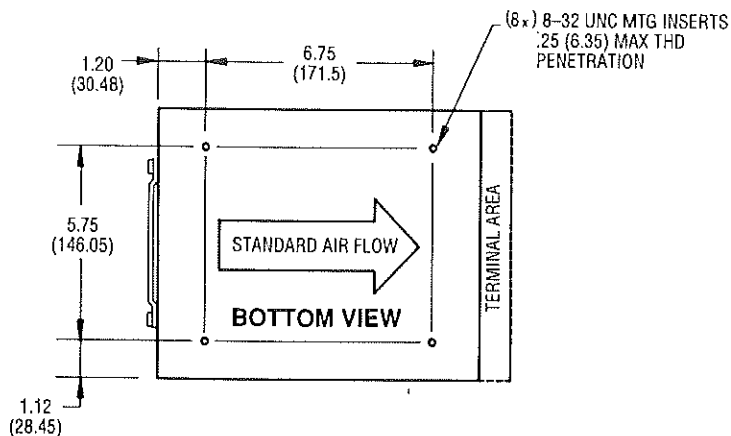
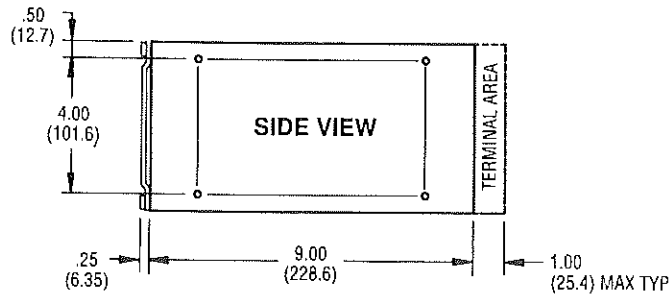
MAX WATTS <sup>1</sup>	MODEL NUMBER <sup>2</sup>	OUTPUT V1
500	JG 1000	2V160A
	JG 2000	5V100A
	JG 3000	12V42A
	JG 4000	15V33A
	JG 5000	24V21A
	JG 6000	28V18A
	JG 7000	48V10A
800	JM 1000	2V180A
	JM 2000	5V160A
	JM 3000	12V67A
	JM 4000	15V54A
	JM 5000	24V34A
	JM 6000	28V29A
1000	JN 1000	2V210A
	JN 2000	5V200A
	JN 3000	12V83A
	JN 4000	15V66A
	JN 5000	24V42A
	JN 6000	28V36A
1200	JP 1000	2V240A
	JP 2000	5V240A
	JP 3000	12V100A
	JP 4000	15V80A
	JP 5000	24V50A
	JP 6000	28V42A
	JP 7000	48V25A

OPTIONS <sup>2</sup>	
D	DC "OK" Signal
F	Current Share/Monitor (Main)
R	Reverse Air Flow

### NOTES:

- Maximum continuous total output power must not exceed the maximum power rating.
- Add suffix letters to model number for options.

MATING PLUGS AND PINS
<b>Single Output, 500W to 1200W</b>
J1 mating plug: Molex 03-06-2092
J2 mating plug: Molex 03-06-2061
Male pins are all 02-06-2103



**FRONT VIEW**

ALL DIMENSIONS IN INCHES (mm). All specifications subject to change without notice.