

250 WATT

**Universal Input
AC/DC Power Supply
INSTRUCTION MANUAL
SVPS 25 SERIES**

SVPS25**General Description:**

The SVPS25 Series consists of 250W AC / DC power supplies providing DC regulated outputs of 5V, 12V, 15V, 24V and 48V. Standard features include Power Factor Correction, Class "B" VDE and FCC EMI filtering, Remote Voltage Sensing and Short Circuit Protection. Optional features include a Safety Cover and Input Good / Output Good Signals.

Electrical specification:**Output specification:**

Model	Output Voltage Range			Output Current Max.		Output ripple	Total Regulation Line and Load
	Min	Nom	Max	50°C	60°C	mV pk-pk	mV
SVPS25-5	4.75V	5V	5.25V	50A	42.5A	100	50
SVPS25-12	11.4V	12V	12.6V	20.8A	17.7A	150	120
SVPS25-15	14.25V	15V	15.75V	16.7A	14.15A	150	120
SVPS25-24	22.8V	24V	25.2V	10.4A	8.8A	200	240
SVPS25-48	45.6V	48V	50.4V	5.2A	4.4A	400	480

(Ambient is defined as one inch below the unit.)

Harmonics:	Meets IEC 555-2 AC line harmonics requirement.
Overshoot :	No overshoot at turn on, turn off, power failure or removal of a short circuit.
Start-up time:	1.2 sec at input voltage 115Vac
Hold-up time:	Typically 16 ms min at full output power and at input voltage 85Vac
Temperature Coefficient:	0.03%/°C

AC input:

Line:	85-265Vac Continuous operation, 47-63 Hz, Single Phase.
Efficiency:	70% (typical) for all models
Inrush Current:	75A typical for cold startup at 25°C
Input Current :	5A RMS. max

Input Power:	357W (typical) for all models.
EMI:	Conducted EMI conforms to FCC Part 15, Subpart J, Class B and VDE 0871, Curve B.
Input Surge Protection:	Meets IEC801,-2,-4,-5 level 3; IEEE C62.41-1991 Location Category A2, (A3 with external MOV's)
Over-current protection:	Limits output current to a maximum 125% (typical) of rated load current. Sustained overloads or short circuits for more than 30 seconds may cause power supply damage.
Over-voltage protection:	Over-voltage protection is standard on all models. Input power must be interrupted to reestablish output after OV condition has been removed.
Fusing:	Fuse F1, 6A/250Vac, Normal Blow. Overload of power supply does not cause fuse failure. Replace only with the same type and rating.
Isolation Voltage:	3000Vac from input to output and input to signal connectors. 1500Vac input to chassis. 500Vac output to chassis and signal connectors to chassis.
Safety Agency Compliance:	Designed to meet <i>UL1950, CSA22.2 #234-M90, EN60950, IEC950, EN410003.</i>
Leakage Current:	Less than 3.5mA, (AC line to chassis ground).
DC Output controls:	Simple screw driver adjustment provides $\pm 5\%$ setting over entire voltage range.
Remote Voltage Sensing:	Remote sense capability is provided on all units. Max allowed load cable voltage drop must be less than 0.2V.
AC Good Signal:	1mA conductance signal which indicates that adequate input capacitor energy storage to meet hold-up specification. DC Output will stay within regulation specifications for 10 ms after AC Good Signal ceases to conduct. AC Good Signal is initiated approximately 1.2 s after input power is applied.
DC Good Signal:	1 mA conductance signal which indicates that delivered output voltage, as measured at the +V and -V terminals, is above 90% of nominal value.
Ambient operating temperature and cooling:	Convection cooled. No fans or blowers needed for continuous operation from 0°C to 60°C with 15% derating above 50°C
Storage temperature:	-30° to +85° C

Physical Data

Size: 4.75"x 1.77"x 9.5"
Weight: 3.5 lbs.net

Mounting: Two mounting positions, two mounting surfaces. Threaded inserts in chassis for mounting accept *M4* screws. Customer mounting screws must not protrude into power supply by more than 1/4 inch .

Vibration : The *SV* Series meets *MIL-STD-810E* specification for transportation.

Input connections: Molex Connectors 0.156" spacing.
Mating connector *P/N 09-50-8051* or equivalent.
Note: Molex Connector requires Crimp Terminals *P/N 08-50-0106*.

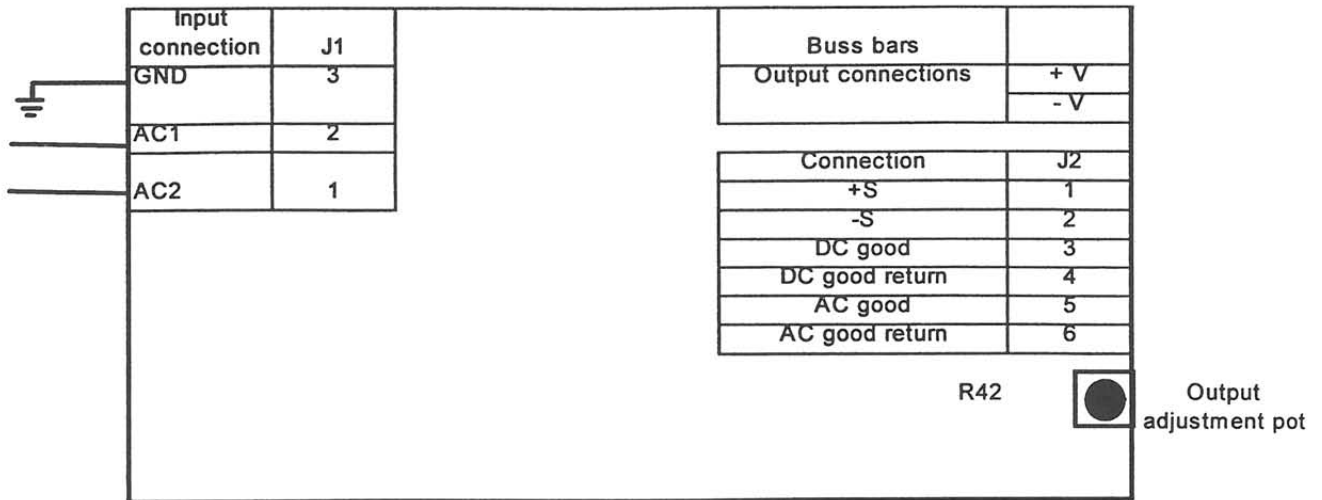
Signal Connection: Molex Connectors 0.100" spacing.
Mating connector *P/N 22-01-2067* or equivalent.

Output connections: Heavy duty buss-bars.

Superior Value Options: The following features are optional and provide the opportunity to optimize the power supply for cost driven applications.

<u>Option Code:</u>	<u>Description:</u>
Z	Fully enclosed unit (output power must be derated by 10%).

Warranty: One year warranty includes labor as well as parts



Notes:

1. N/C - no connection
2. The output voltage may be adjusted using the adjustment potentiometer shown.

Fig. 1 Input/output Connection

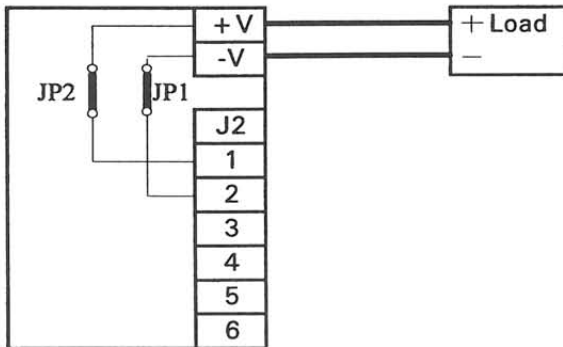
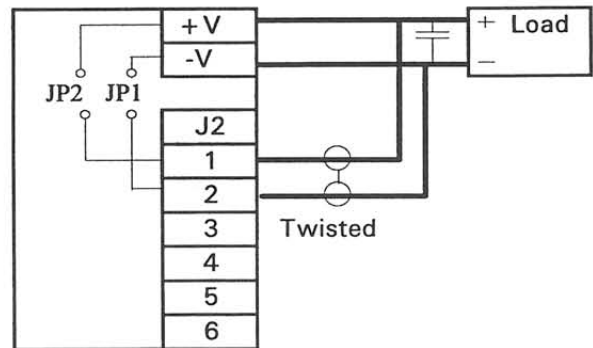


Fig. 2 Local sense connection



Suitable decoupling capacitor (0.1uf, or greater) may be required at load

Fig. 3 Remote sense connection

Note:

Remote sense minimizes the effects of distribution losses by regulating the voltage at the remote sense connections. For remote sensing disconnect jumpers JP1 and JP2. Good layout techniques, such as close proximity and directness, should be observed for noise immunity.

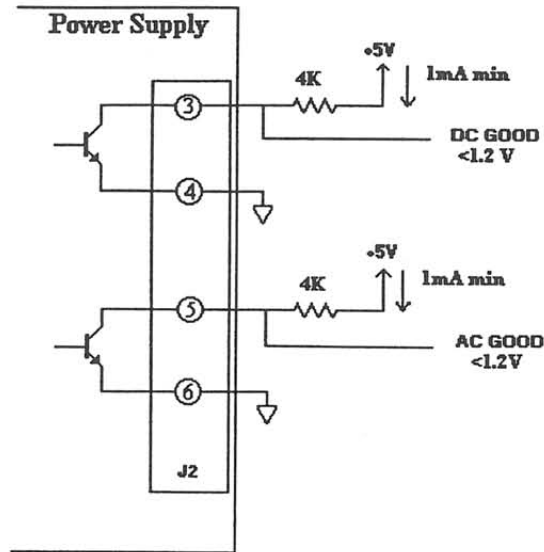
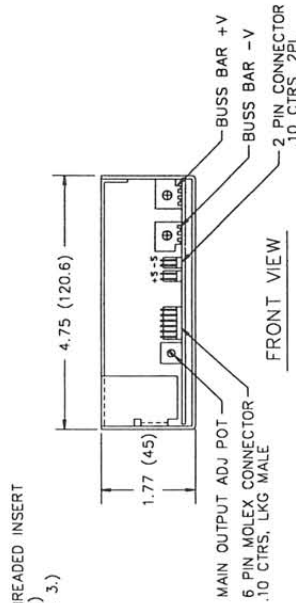
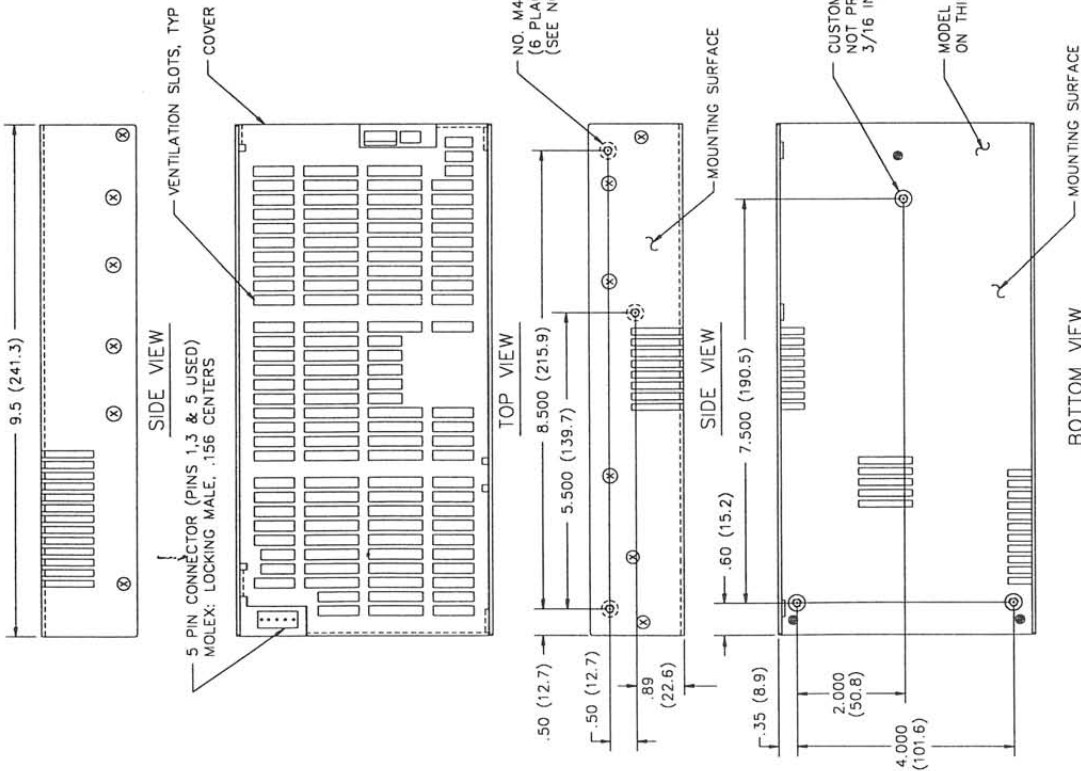


Fig. 4 Connection diagram for output signals.

- NOTE:
1. UNIT IS SUPPLIED WITH OR WITHOUT COVER.
 2. CUSTOMER MOUNTING SCREWS (NO. M4) MUST NOT PROTRUDE INTO POWER SUPPLY BY MORE THAN 1/4" INCH (6.3).
 3. DIMENSIONS ARE IN INCHES EXCEPT DIMENSIONS IN () ARE IN MM.

MODEL	TABLE OF WEIGHTS	
	NET (LBS.)	SHIPPING (LBS.)
SVPS25 (NO COVER)	3.25	4.25
(WITH COVER)	3.5	4.5





Addendum

SAFETY AND INSTALLATION INSTRUCTIONS

The CE mark on the product is applied to show conformance to the requirements outlined in the European Union's Low Voltage Directive [72/23/EEC] as amended by the CE mark Directive [93/68/EEC] .