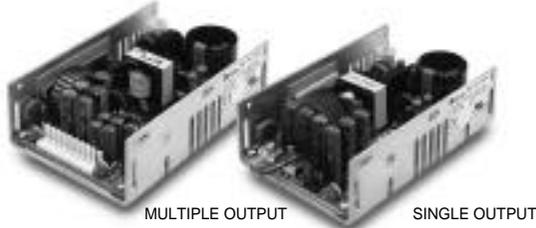


100 Watts

SRW/SRP-100 Series

Features

- Universal 85-264 VAC Input
- Compact 3.3" X 5" X 1.5" Size
- Standard "U" Shaped Chassis
- Optional Perforated Cover
- All SRW Outputs Fully Regulated
- Class B Conducted Emissions Per EN 55022,11
- EMC Compliant To EN 61000-4-2, 3, 4, 5, 6, & 11 and EN 60601-1-2
- Optional Power Fail Signal
- 2 Year Warranty
- EN 60950 ITE Certification
- EN 60601-1 Medical Certification



Safety Specifications

General	Protection Class:	I
	Overvoltage Category:	II
	Pollution Degree:	2
Underwriters Laboratories File E137708	UL1950 Third Edition UL2601-1 First Edition CB Report Per IEC 950 (1991) Second Edition, A1, A2, A3, A4 All EN60950 Deviations CBReport Per IEC601-1 (1988) First Edition, A1, A2	
UL Recognition Mark for Canada File E137708	CAN/CSA-C22.2 No. 950-M95 CAN/CSA-C22.2 No. 601-1-M90	
TUV License B 97 10 30824 001	EN 60950 EN 60601-1	
	Low Voltage Directive	

Model Listing

SRW	MODELNO.	OUTPUT 1	OUTPUT2	OUTPUT 3	OUTPUT 4
	SRW-100-4001	+3.3V/10A ⁽⁵⁾	+5V/4A	+12V/2A ⁽⁶⁾	-12V/1A
	SRW-100-4002	+5V/10A ⁽⁵⁾	+24V/2A	+12V/2A ⁽⁶⁾	-12V/1A
	SRW-100-4003	+5V/10A ⁽⁵⁾	+24V/2A	+15V/2A ⁽⁶⁾	-15V/1A
	SRW-100-4004	+5V/10A ⁽⁵⁾	-5.2V/4A	+12V/2A ⁽⁶⁾	-12V/1A
	SRW-100-4005	+5V/10A ⁽⁵⁾	-5.2V/4A	+15V/2A ⁽⁶⁾	-15V/1A
	SRW-100-4006	+5V/10A	+3.4V/4A	+9V/1A	24V/0.5A
	SRW-100-4007	+5V/10A	+15V/3A	+12V/2A	-12V/1A
	SRW-100-4008	+5V/10A	3.3V/4A	+12V/2A	-5V/1A
	SRW-100-4009-IT	+3.3V/10A	+5V/4A	+12V/2A	-5V/1A
	SRW-100-3001	+5V/10A ⁽⁵⁾	+12V/4A		-12V/1A
	SRW-100-3002	+5V/10A ⁽⁵⁾	+15V/3A		-15V/1A
	SRW-100-3003	+5V/10A	+3.3V/8A		-12V/1A
	SRW-100-3004	+3.3V/10A	+5.8V/3A		-48V/1A
	SRW-100-2001	+12V/5A	-12V/4A		
	SRW-100-2002	+15V/5A	-15V/3A		
	SRW-100-1001	3.3V/20A ⁽⁷⁾			
	SRW-100-1002	5V/20A			
	SRW-100-1003	12V/8.3A			
	SRW-100-1004	15V/6.7A			
	SRW-100-1005	24V/4.2A			
	SRW-100-1006	28V/3.6A			
	SRW-100-1007	48V/2.1A			
	SRW-100-1008	40V/2.5A			
SRP	MODELNO.	OUTPUT 1	OUTPUT2	OUTPUT 3	OUTPUT 4
	SRP-100-4001	+5V/12A ⁽⁵⁾	+24V/3A	+12V/2A ⁽⁶⁾	-12V/1A
	SRP-100-4002	+5V/12A ⁽⁵⁾	+24V/3A	+15V/2A ⁽⁶⁾	-15V/1A
	SRP-100-4003	+5V/12A ⁽⁵⁾	-5V/4A	+12V/2A ⁽⁶⁾	-12V/1A
	SRP-100-4004	+5V/12A ⁽⁵⁾	-5V/4A	+15V/2A ⁽⁶⁾	-15V/1A
	SRP-100-4005	+5V/12A	+12V/3A	+8V/2A	-8V/1A
	SRP-100-3001	+5V/12A ⁽⁵⁾	+12V/4A		-12V/1A
	SRP-100-2001	+5V/12A ⁽⁵⁾	+24V/3A		

Refer to "Applications Information" on page 13.

All specifications are maximum at 25°C unless otherwise stated and are subject to change without notice.

Output Specifications

Total Output Power		70W At 50° C, Convection Cooled 85W At 50° C, Convection Cooled w/ 1 Sq. Ft. Baseplate 100W At 50° C, 200 LFM Forced Air
Output Voltage Centering	(SRW) (SRP)	Output 1: ± .25% Output 2: ± .25% (All outputs at 50% rated load) Output 2: ± 5.0% Output 3: ± 2.0% Output 4: ± 2.0%
Source Regulation		Outputs 1-4: 0.5%
Load Regulation	(SRW) (SRP)	Output 1: 0.5% (10-100% Load Change) Output 2: 0.5% (10-100% Load Change) Output 3: 1.0% (10-100% Load Change) Output 4: 1.0% (10-100% Load Change)
Cross Regulation	(SRW) (SRP)	Output 2: 0.2% (Output 1 load varied 50-100%) Output 2: 5.0% Output 3: 0.2% Output 4: 0.2%
Output Voltage Adjust		Output 1: 95% to 105% Output 1: 85% to 105% (Models 1001 & 4001) Output 2: 95% to 105% (SRW Models Only)
Span Resolution		1%
Output Noise		(Output under test at 100% rated load)
Source Freq.		Outputs 1-4: 0.5%
Switching Freq.		Outputs 1-4: 1%
Total (20MHz)		Outputs 1-4: 1%
Turn On Overshoot		None
Transient Response		Outputs 1-4
Voltage Deviation		5%
Recovery Time		2 mS
Load Change		50% To 100%
Output Overvoltage Protection (Optional)		Output 1: 110% To 150%
Output Overpower Protection		110 Watts Min., Outputs 1 And 2 Outputs cycle on/off, auto recovery
Output Overcurrent Protection		110% Min. Outputs 3 And 4
Hold Up Time		10 mS Min., 100W Output, 120V Input
Start Up Time		1 Second

Input Specifications

Source Voltage	85 - 264 Volts AC
Frequency Range	47-63 Hz.
Source Current	
True RMS	3AAt 85V Input
Peak Inrush	30A
Efficiency	.68 - .84 (Varies by model)

Environmental Specifications

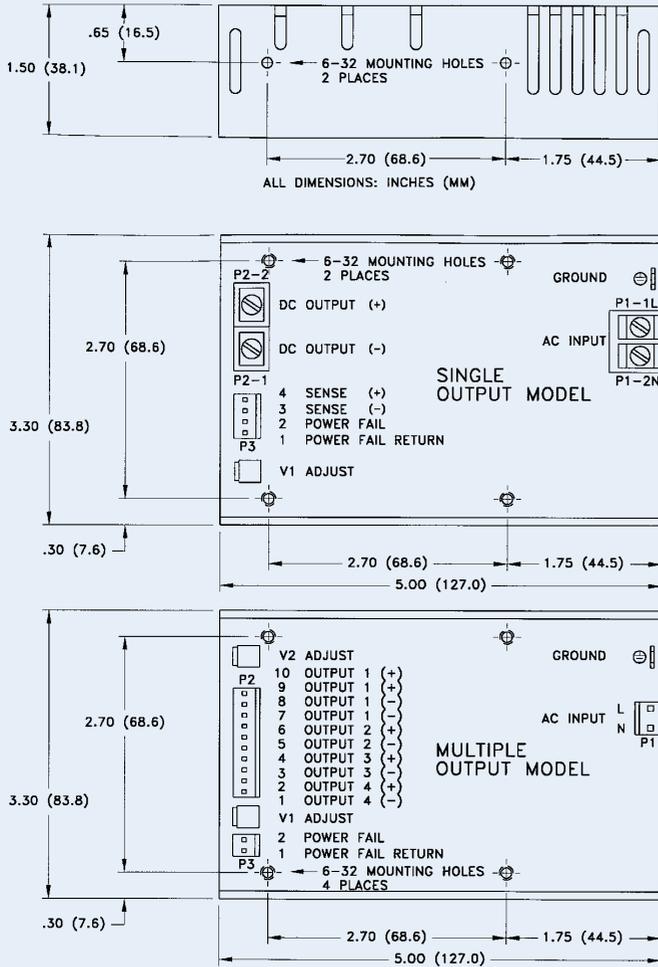
Ambient Operating Temperature Range	0° C to +70° C Derating: See Power Rating Chart
Ambient Storage Temperature Range	-40° C To +85° C
Shock	Transit Drop per MIL-STD-810E Method 516.4 Procedure IV
Vibration	MIL-STD-810E, Method 514.4, Category 1
Temperature Coefficient	Outputs 1-4: 0.02%/°C

General Specifications

Dielectric Strength	5656 VDC, Primary to Secondary, 1 Sec. 2121 VDC, Primary to Ground, 1 Sec. 500 VDC, Secondary to Ground, 1 Sec.
Leakage Current	<500 µA Earth Leakage Current <100 µA Patient Leakage Current
Power Fail Signal (Optional)	Logic low with input power failure, 2 mS minimum prior to output 1 dropping 1%
Remote Sense (Single Output Models Only)	250 mV compensation of output cable losses
Mean-Time Between Failures	150,000 Hours min., MIL-HDBK-217F, 25° C, GB
Weight	1.0 Lbs.

Electromagnetic compatibility specifications located on page 13.

SRW / SRP100 Series Mechanical Specifications



AC Input Connector P1: (Single Output)

- Terminal block with 4-40 inch screws on 0.325 inch centers mates with #4 spade terminals.

AC Input Connector P1: (Multi Output)

- .156 inch friction lock header mates with Molex 09-50-3031 or equivalent crimp terminal housing with Molex 08-50-0189 or equivalent crimp terminal.

DC Output Connector P2: (Single Output)

- 6-32 screw down terminal mates with #6 ring tongue terminal.

DC Output Connector P2: (Multi Output)

- .156 inch friction lock header mates with Molex 09-50-3101 or equivalent crimp terminal housing with Molex 08-50-0189 or equivalent crimp terminal.

Ground Connector :

- Ground mates with .187 inch quick disconnect terminal.

Option/Sense Connector P3: (Single Output)

- .100 inch friction lock header mates with Molex 22-01-2047 or equivalent crimp terminal housing with Molex type 6459 or equivalent crimp terminal.

Option/Sense Connector P3: (Multi Output)

- .100 inch friction lock header mates with Molex 22-01-2027 or equivalent crimp terminal housing with Molex type 6459 or equivalent crimp terminal.



Optional cover increases height dimension from 1.5 to 1.75 inches.

Electromagnetic Compatibility Specifications

Electrostatic Discharge	EN 61000-4-2	8 kV Air Discharge 6 kV Contact Discharge
Radiated Electromagnetic Field	EN 61000-4-3	3 V/M, 26-1000MHz.
EFT/Bursts	EN 61000-4-4	2 kV
Surges	EN 61000-4-5	1kV Differential Mode 2 kV Common Mode
Conducted Immunity	EN 61000-4-6	3V, 150 KHz - 80 MHz.
Voltage Dips	EN 61000-4-11	30% Reduction, 10mS 60% Reduction, 100mS
Voltage Interruptions	EN 61000-4-11	95% Reduction, 5000mS
Radiated Emissions	EN55011 EN55022	Class A Class A
Conducted Emissions	EN55011 EN55022	Class B Class B

Applications Information

- Consult factory for alternate output configurations.
- Consult factory for positive, negative, or floating outputs.
- Specify optional overvoltage protection, power fail signal or cover when ordering.
- Each output can deliver its rated current but total output power must not exceed 70, 85 or 100 watts as determined by the cooling method.
- Rated 8 amps maximum when convection cooled only.
- Rated 1 amp maximum when convection cooled only.
- Rated 50 watts maximum output power when convection cooled, 70 watts when baseplate or forced air cooled.
- Free air convection cooling, 70 watts maximum output power.
- Base plate cooling rating of 85 watts requires a one square foot .09" thick aluminum area attached to bottom four mounting holes.
- Forced air cooling rating of 100 watts requires an air speed of 200 linear feet per minute flowing past a point one inch above the main isolation transformer.
- This product is intended for use as a professionally installed component within medical and information technology equipment.
- A minimum load of 10% is required on output one to ensure proper regulation of remaining outputs.
- Remote sense terminals (Figure 1) may be used to compensate for cable losses up to 250mV (single output models only). The use of a twisted pair is recommended as well as a decoupling capacitor C_D (0.1-10 μ F) and a capacitor C_L of 100 μ F/Amp connected across the load side.
- Peak to peak output ripple and noise is measured directly at the output terminals of the power supply, without the use of the probe ground lead or retractable tip, 20 MHz bandwidth.
- This power supply has been safety approved and final tested using a DCdielectric strength test. Please consult factory before performing AC dielectric strength test.
- The input circuit includes only one fuse in the "line" conductor. In consideration to paragraph 57.6 of UL 2601-1, when used in medical applications a fuse should be added to the "neutral" conductor in the end product.
- Maximum screw penetration into chassis mounting holes is .125 inches.

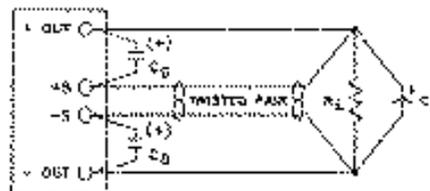
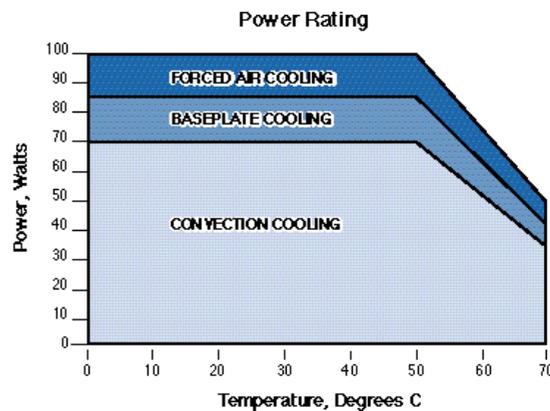


Figure 1 - Output sense connections