

100 WATTS

SRW-100 SERIES

OUTPUT SPECIFICATIONS

Features

- Universal 85-264 VAC Input
- High Efficiency
- Compact 3.3" X 5" X 1.5" Size
- Class B Emissions Per EN 55022/11
- EMC to EN 61000-6-2 & EN 60601-1-2
- 2 Year Warranty
- One to Four Tightly Regulated Outputs
- EN 60950 ITE Certification
- EN 60601-1 Medical Certification
- Optional Perforated Cover



Total Output Power at 50° C	70W Convection Cooled 85W Convection Cooled w/1 Sq.ft. baseplate 100W LFM Forced Air
Output Voltage Centering	Output 1: +/-0.25% Output 2:(SRW) +/-0.25% (SRP) +/-5.0% Output 3: +/-2.0% Output 4: +/-2.0% (All outputs at 50% rated load)
Source Regulation	Outputs 1-4: 0.5%
Load Regulation	Output 1:0.5% (10-100% Load Change) Output 2: (SRW) 0.5% (10-100% Load Change) (SRP) 5.0% (10-100% Load Change) Output 3: 1.0% (10-100% Load Change) Output 4: 1.0% (20-100% Load Change)
Cross Regulation	Output 2: (SRW) 0.2% load (SRP) varied 50-100% Output 3: 0.2% Output 4: 0.2%

GENERAL SPECIFICATIONS

Dielectric Strength	Reinforced Insulation 5656 VDC, Primary to Secondary, 1 Sec. Basic 2121 VDC, Primary to Insulation Ground, 1 Sec. Operational Insulation 707 VDC, Secondary to Ground, 1 Sec.	Output Voltage Adjust Range	Output 1: 95-105% 85-105% (1001,1004) Output 2: 95-105% (SRW models only)
Leakage Current	<500 ÅµA Earth Leakage Current	Output Noise	Outputs 1-4: 1%
Power Fail Signal (optional)	Logic low with input power failure 2mS minimum prior to output 1 dropping 1%	Turn On Overshoot	None
Remote Sense (single output models only)	250mV compensation of output cable losses	Transient Response	Outputs 1-4 Voltage Deviation 5.0% Recovery Time 2mS Load Change 50% to 100%
Mean Time Between Failures	150,000 Hours min., MIL-HDBK-217F, 25°C, GB	Output Overvoltage Protection (Optional)	Output 1: 110% to 150%
Weight	1.00 Lbs. Chassis 1.05 Lbs. Chassis/Cover	Output Overpower Protection	Outputs 1 & 2: 110% Min Outputs cycle on/off, auto recovery
		Output Overcurrent Protection	Outputs 3 & 4: 110% Min
		Hold Up Time	10 mS min., 100W, 120V Input
		Start Up Time	1 Second

INPUT SPECIFICATIONS

Source Voltage	85-264 Volts AC
Frequency Range	47-63 Hz
Source Current True RMS	3A at 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 Temp. Range	-40°C to +85°C
Temperature Coefficient	Outputs 1-4: 0.02%/°C

ELECTROMAGNETIC COMPATIBILITY

Electrostatic Discharge	EN 61000-4-2	+/-8kV Contact Discharge +/-8kV Air Discharge
Radiated Electro-magnetic Field	EN 61000-4-3	80MHz-2.5GHz, 10V/m, 80% AM
EFT/Bursts	EN 61000-4-4	+/-2kV
Surges	EN 61000-4-5	+/-1 kV Differential Mode +/-2 kV Common Mode
Conducted Immunity	EN 61000-4-6	.15-80MHz., 10V, 80% AM
Voltage Dips and Interruptions	EN 61000-4-11	30% Reduction 95% Reduction 60% Reduction 95% Reduction
Radiated Emissions	EN 55011/22	Class B
Conducted Emissions	EN 55011/22	Class B
Harmonic Current Emissions	EN 61000-3-2	
Voltage Fluctuations and Flicker	EN 61000-3-3	

MODEL LISTING

Model NO.	Output 1	Output 2	Output 3	Output 4
SRW-100-4001	+3.3V/10A ₍₂₎	+5V/4A	+12V/2A ₍₃₎	-12V/1A
SRW-100-4002	+5V/10A ₍₂₎	+24V/2A	+12V/2A ₍₃₎	-12V/1A
SRW-100-4003	+5V/10A ₍₂₎	+24V/2A	+15V/2A ₍₃₎	-15V/1A
SRW-100-4004	+5V/10A ₍₂₎	-5.2V/4A	+12V/2A ₍₃₎	-12V/1A
SRW-100-4005	+5V/10A ₍₂₎	-5.2V/4A	+15V/2A ₍₃₎	-15V/1A
SRW-100-4006	+5V/10A ₍₂₎	+3.4V/4A	+9V/1A	24V/0.5A
SRW-100-4007	+5V/10A ₍₂₎	+15V/3A	+12V/2A ₍₃₎	-12V/1A
SRW-100-4008	+5V/10A ₍₂₎	3.3V/4A	+12V/2A ₍₃₎	-5V/1A
SRW-100-4009-IT	+3.3V/10A ₍₂₎	+5V/4A	+12V/2A ₍₃₎	-5V/1A
SRW-100-4010	+5V/5A	+15V/4A	+12V/2A ₍₃₎	9V/2.5A
SRW-100-4011	+5V/10A ₍₂₎	-15V/2.2A	+15V/2.2A ₍₃₎	12V/1A
SRW-100-4012	+5V/10A ₍₂₎	3.3V/4A	+12V/2A ₍₃₎	-12V/1A
SRW-100-3001	+5V/10A ₍₂₎	+12V/4A		-12V/1A
SRW-100-3002	+5V/10A ₍₂₎	+15V/3A		-15V/1A
SRW-100-3003	+5V/10A ₍₂₎	+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-100-2003	+12.5V/4A	+16V/2A		
SRW-100-1001	3.3V/20A ₍₄₎			
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-100-4001	+5V/12A ₍₂₎	+24V/3A	+12V/2A ₍₃₎	-12V/1A
SRP-100-4002	+5V/12A ₍₂₎	+24V/3A	+15V/2A ₍₃₎	-15V/1A
SPR-100-4003	+5V/12A ₍₂₎	-5V/4A	+12V/2A ₍₃₎	-12V/1A
SRP-100-4004	+5V/12A ₍₂₎	-5V/4A	+15V/2A ₍₃₎	-15V/1A
SRP-100-4005	+5V/12A	+12V/3A	+8V/2A	-8V/1A
SRP-100-3001	+5V/12A ₍₂₎	+12V/4A		-12V/1A
SRP-100-2001	+5V/12A ₍₂₎	+24V/3A		

Notes


Consult factory for alternate output configurations.

Consult factory for positive, negative or floating outputs. Refer to Application Information for complete output power ratings.


All specifications are maximum at 25° C unless otherwise stated and are subjected to change without notice. Specify optional perforated cover, power fail, overvoltage protection, isolated output 2, isolated output 4 or DC Input when ordering.

SAFETY SPECIFICATIONS

General	Protection Class:	I
	Overtoltage Category:	II
	Pollution Degree:	2

 Underwriters Laboratories File E137708	UL 60950, Third Edition
	UL 2601 - 1 Second Edition
	CB Report Per IEC 950 (1991)
	Second Edition A1, A2, A3, A4
	All EN 60950 Deviations
	CB Report Per IEC 601-1-(1988)

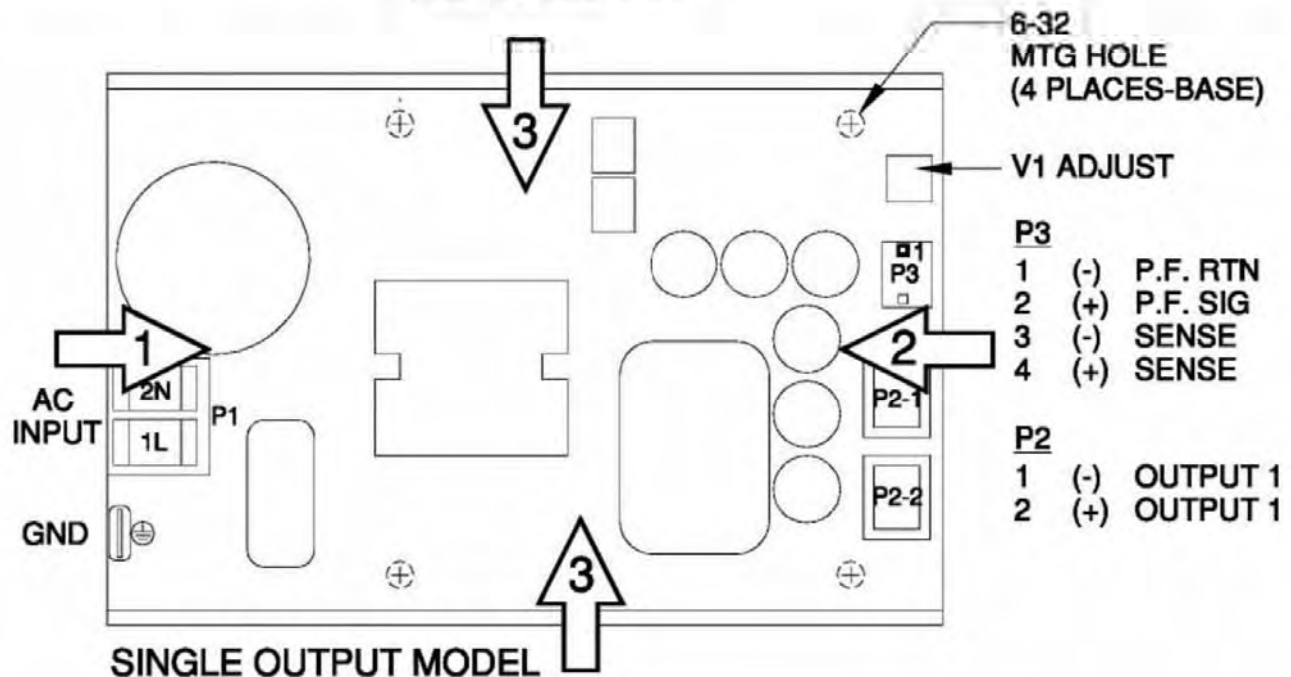
First Edition, A1, A2

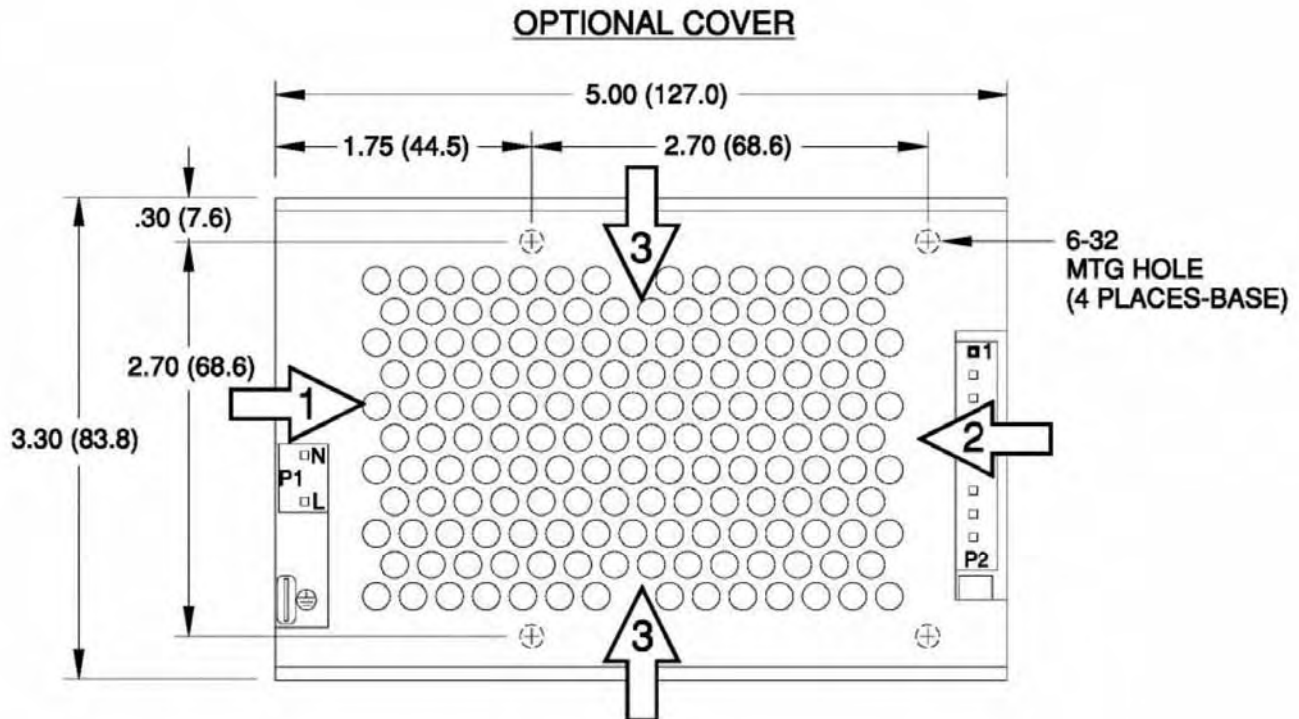
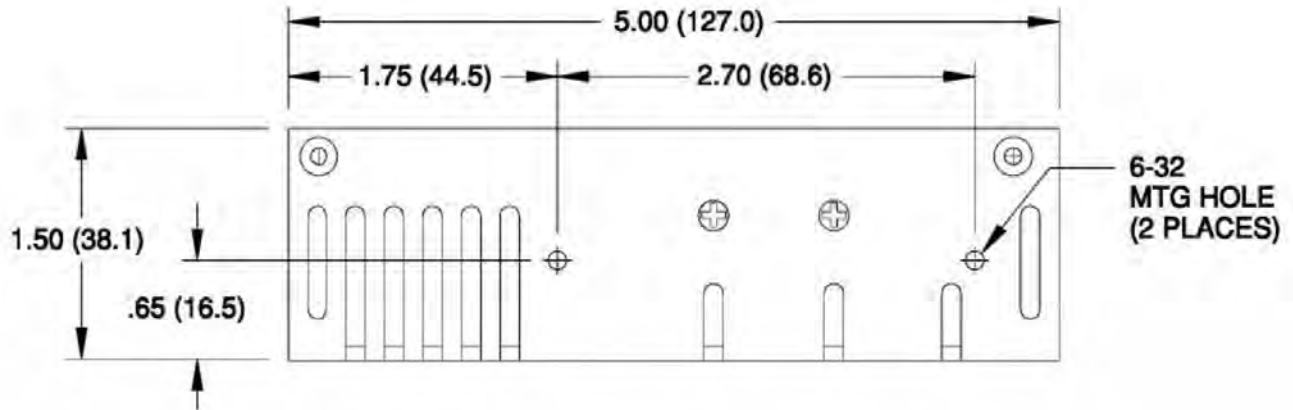
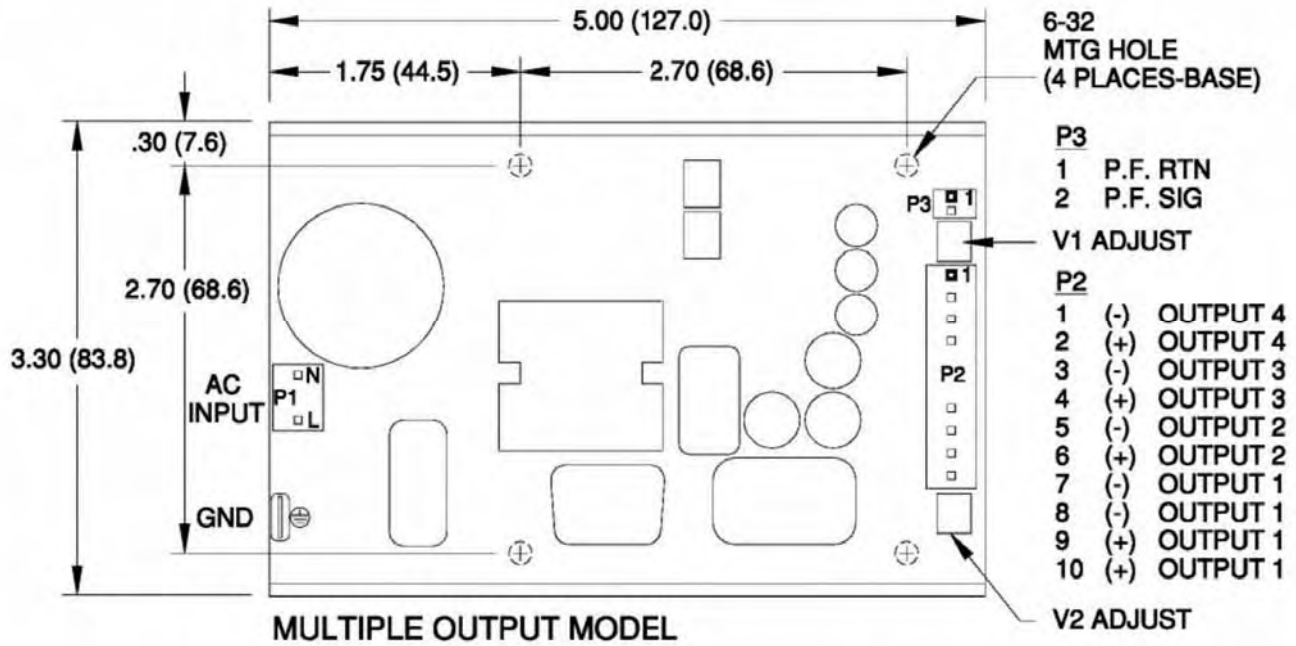
 UL Recognition Mark for Canada File E137708	CAN/CSA-C22.2 No. 60950:00
	CAN/CSA-C22.2 No. 601-1-M90

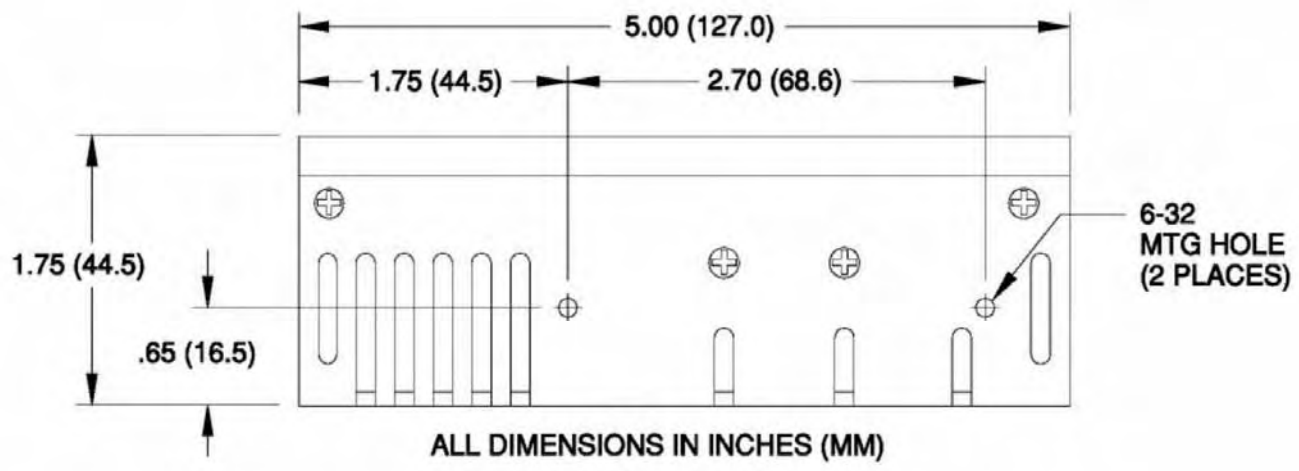
  TUV	EN 60950:2000
	EN 60601-1/A2; 1995
	Low Voltage Directive

SRW/SRP-100 SERIES MECHANICAL SPECIFICATIONS

OPEN CHASSIS



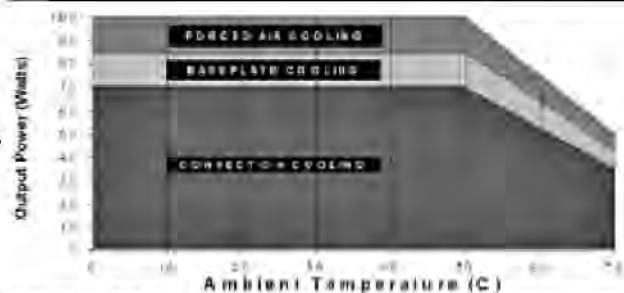




APPLICATIONS INFORMATION

- Each output can deliver its rated current but total output power must not exceed 70, 85 or 100 watts as determined by cooling method.
- Rated 8A with convection cooling.
- Rated 1A with convection cooling.
- 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 aluminium 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.
- Semiconductor case temperatures must not exceed 110° C.
- Sufficient area must be provided around the convection cooled power supplies to allow natural movement of air to develop.
- This product is intended for use as professionally installed component within information technology and medical equipment.
- A minimum load of 10% is required on output one to ensure proper regulation of remaining outputs.
- Remote sense terminals may be used to compensate for cable losses up to 250mV. The use of twisted pair is recommended as well as a decoupling capacitor (0.1-10µF) and a capacitor of 100µF /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 product includes only one fuse in the input circuit. In consideration of Clause 57.6 of UL 2601-1, a second fuse may be required in the end product.
- This power supply has been safety approved and final tested using a DC dielectric strength test. Please consult factory before performing an AC dielectric strength test.
- Maximum screw penetration into chassis mounting holes is .125 inches.
- This product was type tested and safety certificated using the the dielectric strength test voltages listed in Table V of UL 60601-1. In consideration of clause 20.4g, care must be taken to insure the voltage applied to a reinforced insulation does not over stress basic insulation. Secondary to ground capacitors may need to be removed prior to performing a dielectric strength type test on the end product. It is highly recommended that the DC test voltages listed in DVB.1. Annex DVB are not exceeded during a production-line dielectric strength test of the assembled end product. Please consult factory for further information.

Maximum Output Power vs. Ambient Temperature



CONNECTOR SPECIFICATIONS

P1 AC Input (Single)	Terminal block with 4-40 screws on 0.325 inch centers mates with #4 spade terminals.
P1 AC Input (Multiple)	.156 friction lock header mates with Molex 09-50-3031 or equivalent crimp terminal housing with Molex 08-50-0189 or equivalent crimp terminal.
P2 DC Output(Single)	6-32 screw down terminal mates with #6 ring tongue terminal.(10 in-lb max.)
P2 DC Output(Multiple)	.156 friction lock header mates with Molex 09-50-3101 or equivalent crimp terminal housing with Molex 08-50-0189 or equivalent crimp terminal.
G Ground	.187 quick disconnect terminal.
P3 P.F./Sense(Single)	.100 friction lock header mates with Molex 22-55-2047 or equivalent crimp terminal housing with Molex 6459 or equivalent crimp terminal.
P3 P.F./Sense(Multiple)	.100 friction lock header mates with Molex 50-57-2027 or equivalent crimp terminal housing with Molex 6459 or equivalent crimp terminal.

RECOMMENDED AIR FLOW DIRECTION

- Optimum
- Good
- Fair