100 WATTS

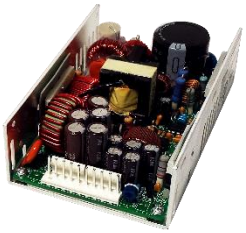
SINGLE/MULTI OUTPUT AC-DC

SRW/SRP-100

FEATURES:

- **Compact 3.3" x 5" x 1.5" Size**
- **2 Year Warranty**
- **Universal 85-264V Input**
- **1-4 Tightly-Regulated Outputs**
- **0-70°C Operating Temperature**
- **RoHS Compliant**
- **IEC 60601-1 3rd ed. Medical Cert.**
- **IEC 60950-1 2nd ed. ITE Certification**
- **IEC 60601-1-2 4th ed. EMC**
- **Class B Emissions per EN55011/32**
- **Optional Power Fail Warning**
- **Optional Perforated Cover**

CHASSIS/COVER



OPEN CHASSIS

SAFETY SPECIFICATIONS

cULus	Underwriters Laboratories File E137708/E140259	UL 60950-1:2007, 2nd Edition AAMI/ANSI ES60601-1:2005/(R) 2012
IECEE CB SCHEME		CB Reports/Certificates (including all National and Group Deviations) IEC 62368-1:2014, 2nd Edition IEC 60601-1:2005/A1:2012
cULus	UL Recognition Mark for Canada File E137708/E140259	CAN/CSA-C22.2 No. 60950-1-07, 2nd Edition CAN/CSA-C22.2 No. 60601-1:2014
TUV SUD	TUV	EN 62368-1:2014, 2nd Edition EN 60601-1:2006/A1:2013
CE	Low Voltage Directive RoHS Directive (Recast)	(2014/35/EU of February 2014) (2011/65/EU of June 2011)

MODEL LISTING

MODEL NO.	OUTPUT 1	OUTPUT 2	OUTPUT 3	OUTPUT 4
SRW-100-4001	+3.3V/10A(17)	+5V/4A	+12V/2A(18)	-12V/1A
SRW-100-4002	+5V/10A(17)	+24V/2A	+12V/2A(18)	-12V/1A
SRW-100-4003	+5V/10A(17)	+24V/2A	+15V/2A(18)	-15V/1A
SRW-100-4004	+5V/10A(17)	-5.2V/4A	+12V/2A(18)	-12V/1A
SRW-100-4005	+5V/10A(17)	-5.2V/4A	+15V/2A(18)	-15V/1A
SRW-100-4006	+5V/10A(17)	+3.4V/4A	+9V/1A	24V/.50A
SRW-100-4007	+5V/10A(17)	+15V/3A	+12V/2A	-12V/1A
SRW-100-4008	+5V/10A(17)	+3.3V/4A	+12V/2A	-5V/1A
SRW-100-4009-IT	+3.3V/10A(17)	+5V/4A	+12V/2A	-5V/1A
SRW-100-4010	+5V/5A	+15V/4A	+12V/2A(18)	9V/2.5A
SRW-100-4011	+5V/10A(17)	-15V/2.2A	+15V/2A(18)	12V/1A
SRW-100-4012	+5V/10A(17)	+3.3V/4A	+12V/2A(18)	-12V/1A
SRW-100-3001	+5V/10A(17)	+12V/4A		-12V/1A
SRW-100-3002	+5V/10A(17)	+15V/3A		-15V/1A
SRW-100-3003	+5V/10A(17)	+3.3V/8A		12V/1A
SRW-100-3004	+3.3V/5A	+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(19)			
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(17)	+24V/3A	+12V/2A(18)	-12V/1A
SRP-100-4002	+5V/12A(17)	+24V/3A	+15V/2A(18)	-15V/1A
SRP-100-4003	+5V/12A(17)	-5V/4A	+12V/2A(18)	-12V/1A
SRP-100-4004	+5V/12A(17)	-5V/4A	+15V/2A(18)	-15V/1A
SRP-100-4005	+5V/12A(17)	+12V/3A	+8V/2A	-8V/1A
SRP-100-3001	+5V/12A(17)	+12V/4A		-12V/1A
SRP-100-2001	+5V/12A(17)	+24V/3A		

OUTPUT SPECIFICATIONS

Total Output Power at 50°C(1)	70W	Convection Cooled	
(See Derating Chart)	85W	Convection Cooled w/1Sq.ft baseplate(16)	
	100W	200LFM Forced-Air Cooled(15)	
Output Voltage Centering	Output 1:	± 0.25%	(All outputs at 50% load)
	Output 2: (SRW)	± 0.25%	
	(SRP)	± 5.0%	
	Output 3:	± 2.0%	
	Output 4:	± 4.0%	
Output Voltage Adjust Range	Output 1:	95 - 105%	
		85 - 105%	(1001, 4001)
	Output 2:	95 - 105%	(SRW models only)
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%	(10-100% load change)
Source Regulation	Outputs 1 – 4:	0.5%	
Cross Regulation	Output 2: (SRW)	0.2%	(Output 1 load varied 50-100%)
	(SRP)	5.0%	
	Output 3:	0.2%	
	Output 4:	0.2%	
Output Noise	Outputs 1 - 4:	1.0%	
Turn on Overshoot	None		
Transient Response	Outputs 1 – 4		
Voltage Deviation	5.0%		
Recovery Time	2mS		
Load Change	50% to 100%		
Output Overvoltage Protection (optional)	Output 1:	110% to 150%	
Output Overpower Protection	Outputs 1 & 2:	110W Min.	
	Outputs cycle on/off, auto recovery		
Output Overcurrent Protection	Outputs 3 & 4:	110% Min.	
Hold Up Time	10ms min., 100W Output, 120V Input		
Start Up Time	1 Second		

INPUT SPECIFICATIONS

Protection Class	I
Source Voltage	85 – 264 Volts AC
Frequency Range	47 – 63 Hz
Source Current	
True RMS	3A at 85V Input
Peak Inrush	30A
Efficiency	0.68-0.84 (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

GENERAL SPECIFICATIONS

Means of Protection	
Primary to Secondary	2MOPP (Means of Patient Protection)
Primary to Ground	1MOPP (Means of Patient Protection)
Secondary to Ground	Operational Insulation(Consult factory for 1MOPP)
Dielectric Strength(8, 9)	
Reinforced Insulation	5656 VDC, Primary to Secondary
Basic Insulation	2121 VDC, Primary to Ground
Operational Insulation	707 VDC, Secondary to Ground
Leakage Current	
Earth Leakage	<500µA NC, <1000µA SFC
Touch Current	<100µA NC, <500µA SFC
Power Fail Signal (optional)(14)	Logic low with input power failure 2ms minimum prior to Output 1 dropping 1%
Remote Sense(single Output Models only)(10)	250mV compensation of output cable losses
Mean-Time Between Failures	150,000 Hours min., MIL-HDBK-217F, 25° C, GB
Weight	1.00 Lbs. Open Frame 1.05 Lbs. w/Cover

ORDERING INFORMATION

Consult factory for alternate output configurations.
Consult factory for positive, negative or floating outputs.
Please specify the following optional features when ordering:

CO - Cover
PF - Power Fail
OVP - Overvoltage Protection
I/O - Isolated Outputs
TS - Terminal Strip

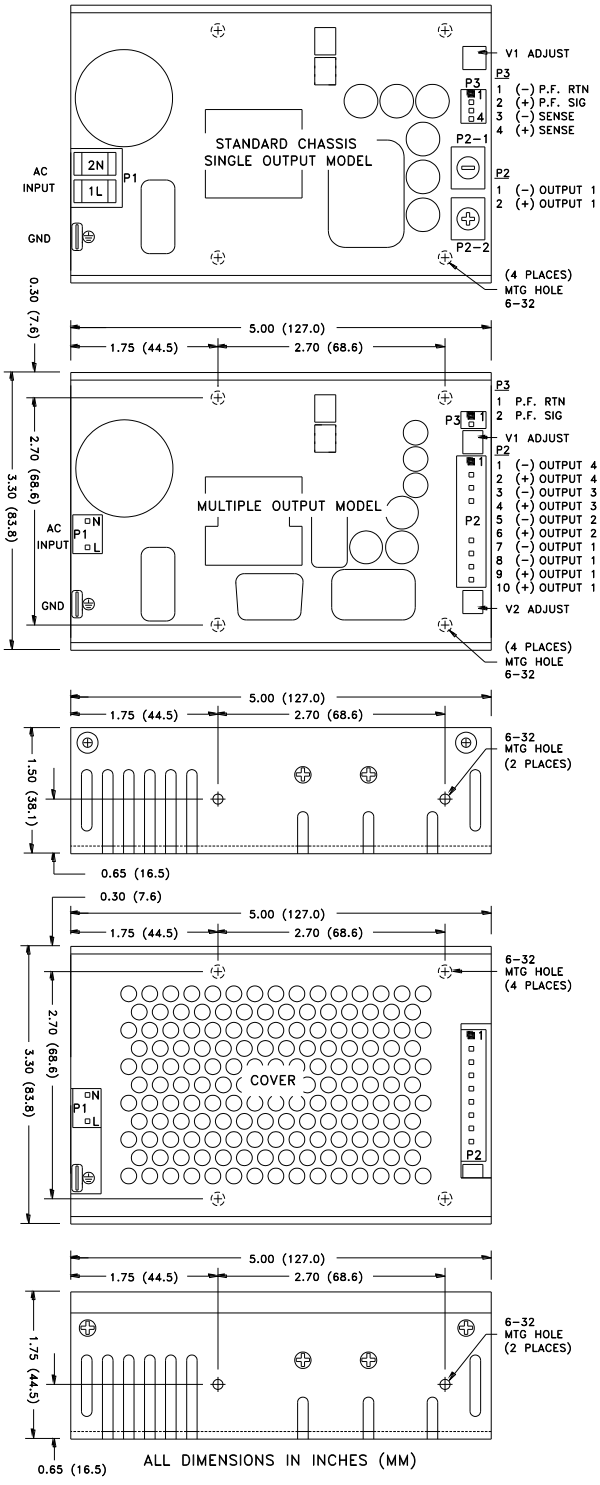
All specifications are maximum at 25°C/100W unless otherwise stated, may vary by model and are subject to change without notice.

INTEGRATED POWER DESIGNS 300 Stewart Road ■ Wilkes-Barre, PA 18706 ■ Phone: (570) 824-4666 ■ Fax: (570) 824-4843 ■ Email: sales@ipdpower.com ■ Web: www.ipdpower.com

EMC SPECIFICATIONS (IEC 60601-1-2:2014, 4TH ed./IEC 61000-6-2:2005)

Electrostatic Discharge	EN 61000-4-2	±8KV contact / ±15KV air discharge	A
Radiated Electromagnetic Field	EN 61000-4-3	80MHz-2.7GHz, 10V/m, 80% AM	A
Electrical Fast Transients/Bursts	EN 61000-4-4	±2 KV, 5KHz/100KHz	A
Surge Immunity	EN 61000-4-5	±2 KV line to earth / ±1 KV line to line	A
Conducted Immunity	EN 61000-4-6	0.15 to 80MHz, 10V, 80% AM	A
Magnetic Field Immunity	EN 61000-4-8	30A/m, 60 Hz.	A
Voltage Dips	EN 61000-4-11	0% U_T, 0.5 cycles, 0-315°	100/240V A/A
		0% U_T, 1 cycles, 0°	100/240V A/A
		40% U_T, 10/12 cycles, 0°	100/240V B/A
		70% U_T, 25/30 cycles, 0°	100/240V B/A
Voltage Interruptions	EN 61000-4-11	0% U_T, 300 cycles, 0°	100/240V B/B
Radiated Emissions	EN 55011/32	Class B	
Conducted Emissions	EN 55011/32	Class B	
Voltage Fluctuations/Flicker	EN 61000-3-3	Compliant	

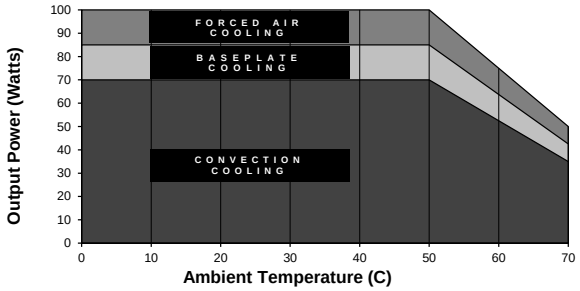
SRW/SRP-100 SERIES MECHANICAL SPECIFICATIONS



APPLICATIONS INFORMATION

1. Each output can deliver its rated current but Total Output Power must not exceed 70, 85 or 100W, as determined by the cooling method.
2. Generally, adequate cooling is provided when semiconductor case temperatures do not exceed 70°C rise and transformer temperature does not exceed 60°C rise at any specified ambient temperature.
3. Sufficient area must be provided around power supply to allow natural movement of air to develop in convection-cooled applications.
4. This product is intended for use as a professionally-installed component within information technology, industrial, and medical equipment and is not intended for stand-alone operation.
5. A minimum load of 10% is required on Output 1 to ensure proper regulation of remaining outputs.
6. This product includes only one fuse in the input circuit. In consideration of Clause 8.11.5 of IEC 60601-1:2005, a second fuse may be required in neutral conductor of the end product.
7. 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 (tip-and-barrel method), 20 MHz bandwidth.
8. This product was type-tested and safety-certified using the dielectric strength test voltages listed in Table 6 of IEC 60601-1:2005. In consideration of Clause 8.8.3, care must be taken to ensure that the voltage applied to a reinforced insulation does not overstress different types and levels of insulation. Primary and secondary-to-ground capacitors may need to be disconnected prior to performing a dielectric strength test on the power supply or the end product. It is highly recommended that the DC test voltages listed in DVB.1, Annex DVB of UL 60601-1 1st Edition are not exceeded during a production-line dielectric strength test of the assembled end product. Please consult factory for further information.
9. 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.
10. Remote-Sense terminals may be used to compensate for cable losses up to 250mV, depending on model. The use of a twisted pair, decoupling capacitors and an appropriately-rated low-impedance capacitor connected across the load will increase noise immunity.
11. Maximum screw penetration into chassis mounting holes is 0.125 inches.
12. To comply with emissions specifications, all four mounting hole pads must be electrically connected to a common metal chassis. Chassis/Cover option is recommended. Refer to Operating Instructions for additional information.
13. Common RF shielding precautions may need to be taken to assure emissions compliance. Refer to Operating Instructions for additional information.
14. Power Fail (AC-Good) feature provides a logic-low warning signal from an open collector transistor output 2ms prior to loss of output from AC failure.
15. Forced-Air cooling rating of 100W requires an air speed of 200LFM flowing past a point one inch above the main isolation transformer.
16. Baseplate cooling rating of 85W requires a one-square-foot 0.09"-thick aluminum area attached to bottom four mounting holes.
17. Rated 8A maximum when convection cooled only.
18. Rated 1A maximum when convection cooled only.
19. Rated 50W maximum output power when convection cooled; 70W when baseplate or forced-air cooled.

MAXIMUM OUTPUT POWER vs. AMBIENT TEMPERATURE



CONNECTOR SPECIFICATIONS

P1	AC Input (Single)	Terminal block with 4-40 inch screws on 0.325 inch centers with #4 spade terminals.
P1	AC Input (Multiple)	0.156 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)	0.156 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	0.187 quick disconnect terminal.
P3	Option/Sense (Single)	0.100 friction lock header mates with Molex 22-01-2047or equivalent crimp terminal housing with Molex 6459 or equivalent crimp terminal.
P3	Option (Multiple)	0.100 friction lock header mates with Molex 22-01-2027or equivalent crimp terminal housing with Molex 6459 or equivalent crimp terminal.

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