



- Wide Input Voltage 90 to 260 VAC, 47 to 63 Hz
- IEC-320-C14 Input Inlet
- Single Output
- Class I
- Over Voltage and Over Load Protection
- Active Power Factor Correction
- DoE 6



Model Number	Output Voltage	Output Amps	Efficiency	Output Connector	Total Regulation
SPU100-105	12 Volts(DC)	8.33 Amps	88%	5 Pin DIN	±5%
SPU100-106	15 Volts(DC)	6.66 Amps	88%	5 Pin DIN	±4%
SPU100-107	18 Volts(DC)	5.55 Amps	88%	5 Pin DIN	±4%
SPU100-108	24 Volts(DC)	4.16 Amps	89%	2.1mm Coax.	±4%
SPU100-109	30 Volts(DC)	3.33 Amps	89%	2.1mm Coax.	±3%
SPU100-110	36 Volts(DC)	2.77 Amps	89%	2.1mm Coax.	±3%
SPU100-111	48 Volts(DC)	2.08 Amps	89%	2.1mm Coax.	±3%

## 100 Watt Desktop Switching Power Supplies

## SPU100 series

### INPUT SPECIFICATIONS

Input Voltage Range	90-260 VAC (100-240 VAC nom.)
Frequency Range	47-63 Hz
Input Current @ FL	Low Line 1.2Amps @ 100VAC High Line 0.5Amps @ 240VAC
Inrush Current @ FL (Cold Start)	Low Line 50Amps max @ 100VAC High Line 100Amps max @ 240VAC
Leakage Current @ FL	0.25 mAmps max. @ 240VAC/60 Hz
Power Factor @ FL	0.95 min. @ 240VAC
No Load Power Consumption	0.21W @ 230VAC

### OUTPUT SPECIFICATIONS

Voltage and Current (Note 1, p3)	See Selection Chart
Load Regulation (Note 4, p3)	± 5%, max. @ 230VAC 10~90% Load Change
Line Regulation @ FL	± 1% max. (Note 3, p3)
Transient Response (FL-1/2L)	4mS @ 110VAC
Ripple/Noise @ FL	100mV pk-pk (Note 5, p3)
Start Up @ FL	2S max. @ 100~240VAC
Hold Up Time @ FL (Note 6, p3)	16mS min @ 100VAC
Over Load Protection	110~150%, Auto-Recovery
Over Voltage Protection	112~132%
Short Circuit	Auto-Recovery

### GENERAL SPECIFICATIONS

Isolation	4242 Volts(DC) Input-Output 2652 Volts(DC) Input-Ground
Efficiency FL @ 230VAC	See Selection Chart (Note 7, p3)
Safety	UL/c-UL(UL 60950-1:2nd Edition)

### PHYSICAL SPECIFICATIONS

Size	146 x 76 x 43 mm 5.75" x 3" x 1.69"
Weight	17.28-23.63 oz (490-670g)
Flammability Rating	UL94V-1

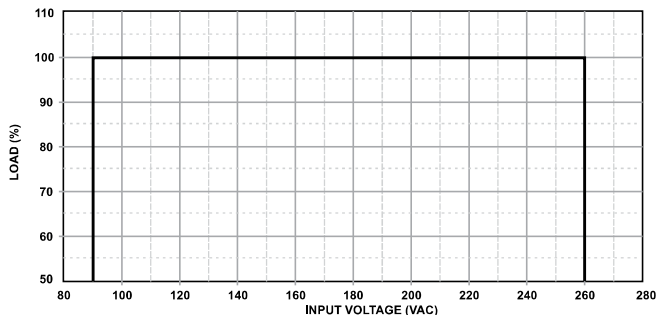
### ENVIRONMENTAL SPECIFICATIONS

Cooling	Free Air Convection
Oper. Temperature	0 to +70°C (See derate curve p3)
Storage Temperature	-40 to +85°C
Operating/Storage Humidity	0% to 95% RH
MTBF	0.1 Mhrs MIL-HDBK-217F (25°C)
Temperature Coefficient	±0.04%/°C, 100~240VAC
Isolation Resistance	50 MΩ / 500VDC Test Voltage
Efficiency Level	VI
EMC	Compliance to EN55022 (CISPR22), EN61000-3-2, -3 Class B
Surge Voltage	2kV
ESD IEC61000-4-2	Air: 8kV, Contact: 6kV
Operating Altitude (Elevation)	3000m
Vibration	5G, 10~500Hz, 10 min./cycle, 60 min. along each axis, X, Y, Z

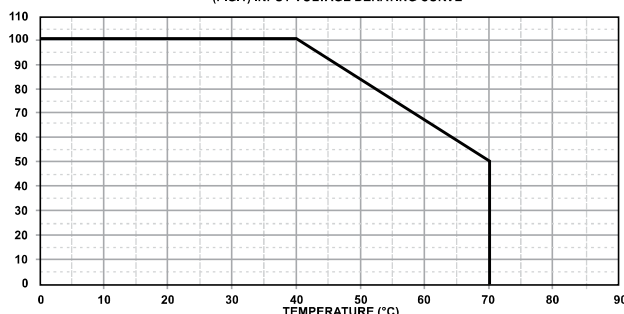
*All specifications are typical at nominal input, full load, and 25°C unless otherwise noted*

**SPECIFICATION NOTE :**

1. Output can provide up to peak load when the power supply starts up. Continuous staying in more than rated load is not allowed.
2. At factory, in 60% rated load condition, each output is checked to be within voltage accuracy.
3. Line regulation is defined by changing  $\pm 10\%$  of input voltage from nominal line at rated load.
4. Load regulation is defined by changing  $\pm 40\%$  of measured output load from 60% rated load.
5. Ripple & noise is measured by using 20MHz bandwidth limited oscilloscope and terminated each output with a 0.47uF capacitor at rated load and nominal line.
6. Hold up time is measured from the end of the last charging pulse to the time which the main output drops down to low limit of main output at rated load and nominal line.
7. Efficiency is measured at rated load, and nominal line.
8. The specifics for testing the energy efficiency of this Series are outlined in a separate document titled "Test Method for Calculating the Energy Efficiency of Single-Voltage Interchangeable AC-DC and AC-AC Power Supplies (August 11, 2004)," which is available on the ENERGY STAR Website.

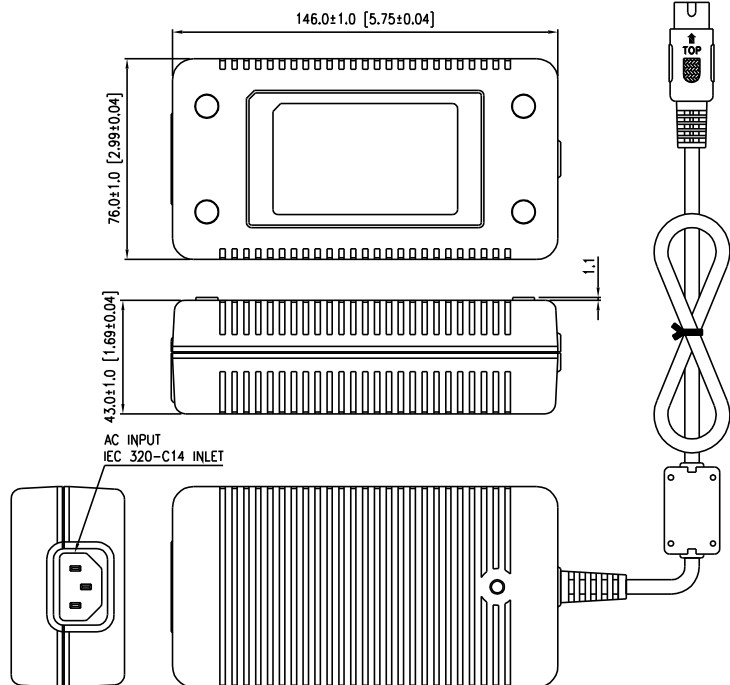


(FIG.1) INPUT VOLTAGE DERATING CURVE



(FIG.2) TEMPERATURE DERATING CURVE

**MECHANICAL DIMENSIONS: ( UNIT: mm )**



**5 Pin DIN**

- 1. COM
- 2. COM
- 3. Vout
- 4. COM
- 5. Vout
- Shell = GND

**COAXIAL PLUG:**

- 5.5mm outer diameter
- 2.1mm inner diameter, female
- 11mm length, center "+"

-Vout +Vout

16AWG x 5C, 4' wires are used in the output cord construction. Modifying the output cord construction will change efficiency and regulation specifications.