

# SPU100 SERIES

## 100W Desk Top Switching Power Supplies For I.T.E.

### Description:

The SPU100 series of AC/DC switching mode power supplies provide 100 Watts of continuous output power . All supplies are UL94V-1 min compliant, include IEC-320-C14 input for worldwide applications. All models meet FCC Part-15 Class B and CISPR-11 EN55022 class B emission Limits and are designed to comply with UL/c-UL(UL 60950-1) ,TUV/T-mark (EN 60950-1) and new CE requirements. All units are 100% burned in and tested.



### Features:

- Wide Input Voltage 90 to 260 VAC,47 to 63 Hz
- IEC-320-C14 Input Inlet
- Single Output
- Output Voltage Available From 11VDC Thru 48VDC
- Optional Output Connector (See appendix)
- Input Surge Current, Over Voltage And Over Load protection
- Over Voltage Protection
- Active Power Factor Correction
- Class I
- Energy Star 2.0, Efficiency level V
- 2 year warranty

### Safety Approvals :



### Electrical Characteristics:

Sym.	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
Vin	Input Voltage	Operating Voltage	90		260	VAC
fin	Input Frequency		47		63	Hz
PF	Power Factor Correction	Io=Full load, Vin=230 VAC	0.95		1	
Po	Output Power Range	Vin=90 to 260 VAC	0		100	W
Vo	Output Voltage Range		See rating chart			V
Io	Output Current Range		See rating chart			A
Iil	Input Current (Low Line)	Io=Full load, Vin=115 VAC			1.35	A
Iih	Input Current (High Line)	Io=Full load, Vin=230 VAC			0.5	A
Irl	Low Line Inrush Current	Io=Full load, 25°C ,Cool start, Vin=115VAC		44	50	A
Irh	High Line Inrush Current	Io=Full load, 25°C ,Cool start, Vin=230VAC		85	100	A
Eff	Efficiency	Io=Full Load, Vin=230VAC		87	90	%
REG-i	Line Regulation	Io=Full Load		0.5	1	%
REG-o	Load Regulation	Vin=230VAC		3	5	%
OVP	Over Voltage Protection		112		132	%
OCP	Over Current Protection		110		150	%
Ttr	Time of Transient Response	Io=Full Load to Half Load, Vin=100VAC			4	mS
Thold	Hold-Up Time	Io=Full Load, Vin=110VAC	12			mS
Ts	Start Up Time	Io=Full Load, Vin=100VAC	0.3	1.5	2	S
Vrn	Ripple & Noise (Peak to Peak)	Full Load, Vin=90VAC		0.5	1	%
Ilk	Safety Ground Leakage Current	Io= Full Load, Vin=240 VAC/60Hz		0.5	0.75	mA
TC	Temperature Coefficient	All output	-0.04		0.04	%/°C

### Environmental :

Sym.	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
Toper	Operating Temperature		0		70	°C
Tstg	Storage Temperature		-40		85	°C
Hr	Relative Humidity		5		95	%
MTBF	Operating Temperature at 25°C, Calculated per MIL-HDBK-217F		0.1M			Hrs
Pd	Derate linearly from 100% load at 40°C to 50% load at 70°C					

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### Safety Specifications:

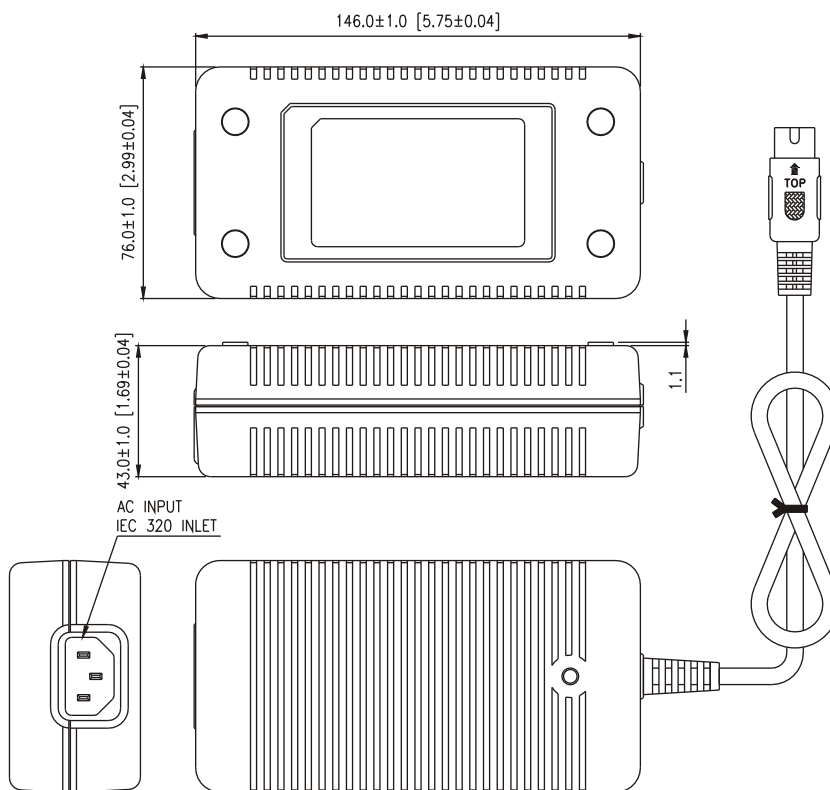
Sym.	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
V <sub>ps</sub>	Dielectric Withstanding Voltage for Primary to secondary	Primary to secondary	4242			VDC
V <sub>pg</sub>	Dielectric Withstanding Voltage for Primary to Ground	Primary to ground	2121			VDC
R <sub>is</sub>	Isolation Resistance	Test Voltage = 2100VDC	50			MΩ
CISPR	EMI requirements for CISPR-11	Vin=230VAC	B			CLASS
FCC	EMI requirements for FCC PART-15	Vin=120VAC	B			CLASS

### Output Voltage And Current Rating Chart (Single Output) :

Model Number	Output Voltage	Output Current	Total Regulation ①	Maximum Output Power
SPU100-105	11 ~ 13 VDC	9.09 ~ 7.69 A	5%	100W
SPU100-106	13 ~ 16 VDC	7.69 ~ 6.25 A	4%	100W
SPU100-107	16 ~ 21 VDC	6.25 ~ 4.76 A	4%	100W
SPU100-108	21 ~ 27 VDC	4.76 ~ 3.70 A	4%	100W
SPU100-109	27 ~ 33 VDC	3.70 ~ 3.03 A	3%	100W
SPU100-110	33 ~ 40 VDC	3.00 ~ 2.50 A	3%	100W
SPU100-111	40 ~ 48 VDC	2.50 ~ 2.08 A	3%	100W

① The total regulation on each model is required to use AWG#18×3C+ AWG#16×3C/4FT output cable. The regulation will be changed by modified output cable.

### Mechanical Specifications:



#### Note:

1. Dimensions are shown in inches or mm.
2. Weight: 490-670gs approx.
3. Optional output connector: See page Appendix.