

SPU 100 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. 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 60950-1:2nd Edition) ,TUV/T-mark (EN 60950-1:2nd Edition) and new CE requirements. All units are 100% burned in and tested.



Features:

- Wide Operating Voltage 90 to 260 VAC,47 to 63 Hz
- IEC-320-C14 Input Inlet
- Single Output
- 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	Safety Approvals Input Voltage Range		100		240	VAC
	Operate Voltage Range		90		264	VAC
f _{in}	Input Frequency		47		63	Hz
PF	Power Factor Correction	I _o =Full load, Vin=230 VAC	0.95		1	
P _o	Output Power Range	Vin=90 to 260 VAC	0		100	W
V _o	Output Voltage Range		See rating chart			V
I _o	Output Current Range		See rating chart			A
I _{il}	Input Current (Low Line)	I _o =Full load, Vin=115 VAC			1.35	A
I _{ih}	Input Current (High Line)	I _o =Full load, Vin=230 VAC			0.5	A
I _{rl}	Low Line Inrush Current	I _o =Full load, 25°C ,Cool start, Vin=115VAC		44	50	A
I _{rh}	High Line Inrush Current	I _o =Full load, 25°C ,Cool start, Vin= 230VAC		85	100	A
Eff	Efficiency	I _o =Full Load, Vin=230VAC		87	90	%
REG-i	Line Regulation	I _o =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	%
T _{tr}	Time of Transient Response	I _o =Full Load to Half Load, Vin=100VAC			4	mS
T _{hold}	Hold-Up Time	I _o =Full Load, Vin=110VAC	12			mS
T _s	Start Up Time	I _o =Full Load, Vin=100VAC	0.3	1.5	2	S
V _{p-p}	Ripple & Noise (Peak to Peak)	Full Load, Vin=90VAC		0.5	1	%
I _{lk}	Safety Ground Leakage Current	I _o = 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
T _{oper}	Operating Temperature		0	40	70	°C
T _{stg}	Storage Temperature		-40		85	°C
H _o	Operating Humidity		0		95	%
H _r	Storage Humidity		0		75	%
MTBF	Operating Temperature at 25°C, Calculated per MIL-HDBK-217F		0.1M			Hrs
P _d	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
Vps	Dielectric Withstanding Voltage for Primary to secondary	Primary to secondary	4242			VDC
Vpg	Dielectric Withstanding Voltage for Primary to Ground	Primary to ground	2121			VDC
Ris	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

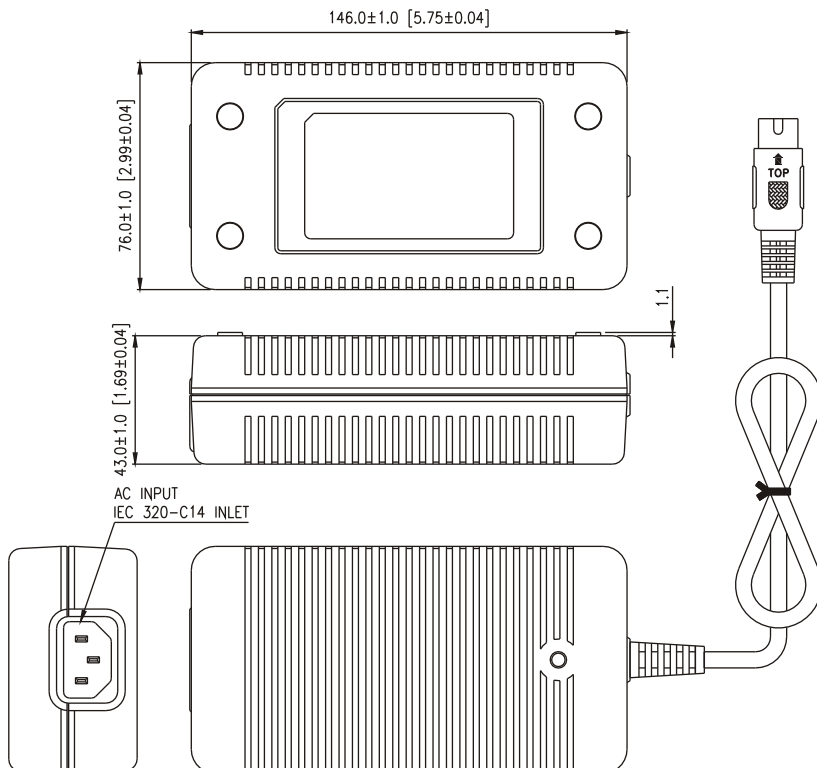
Output Voltage And Current Rating Chart (Single Output) :

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

Mark " * " means approved by KC.

① This series 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.