

# SPU41A SERIES

## 40W Desk Top Switching Power Supplies For I.T.E.

### Description:

The SPU41A series of AC/DC switching mode power supplies provide 40 Watts of continuous output power. All supplies are UL 94V-1 min compliant. All models meet FCC Part-15 class B and CISPR-22 class B emission Limits and are designed to comply with UL/c-UL (UL 60950-1:2<sup>nd</sup> Edition), TUV/GS (EN 60950-1:2<sup>nd</sup> Edition) and new CE requirements. All units are 100% burned in and tested.



### Features:

- Wide Operating Voltage 90 to 264 VAC, 47 to 63 Hz
- IEC-320-C14 Input Inlet
- Single Output
- Optional Output Connector (See appendix)
- Energy Star 2.0, Efficiency level V
- Class I
- 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
fin	Input Frequency		47		63	Hz
Po	Output Power Range	Vin=90 to 264VAC	0		40	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=115VAC			0.8	A
Iih	Input Current (High Line)	Io=Full load, Vin=230VAC			0.52	A
Irl	Low Line Inrush Current	Io=Full load, 25°C, Cool start, Vin=115VAC		40	45	A
Irh	High Line Inrush Current	Io=Full load, 25°C, Cool start, Vin=230VAC		80	90	A
Eff	Efficiency	Io=Full Load, Vin=230VAC	83	87	90	%
REG-i	Line Regulation	Io=Full Load		0.5	1	%
REG-o	Load Regulation	Vin=230VAC		3	7	%
OCP	Over Current Protection		110		150	%
OVP	Over Voltage Protection					%
Ttr	Time of Transient Response	Io=Full Load to Half Load, Vin=100VAC			4	mS
Thold	Hold-Up Time	Io=Full Load, Vin=110VAC	10			mS
Ts	Start Up Time	Io=Full Load, Vin=100VAC		2	3	S
Vp-p	Ripple & Noise (Peak to Peak)	Full Load, Vin=90VAC		0.5	1	%
Ilk	Safety Ground Leakage Current	Io=Full Load, Vin=240VAC		0.5	0.75	mA
TC	Temperature Coefficient	All output	-0.04		0.04	%/°C
Pno	No-Load Power Consumption	No load, Vin=240VAC		0.2	0.3	W

### Environmental :

Sym.	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
Toper	Operating Temperature		0	40	70	°C
Tstg	Storage Temperature		-40		85	°C
Ho	Operating Humidity		0		95	%
Hr	Storage Humidity		0		75	%
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:

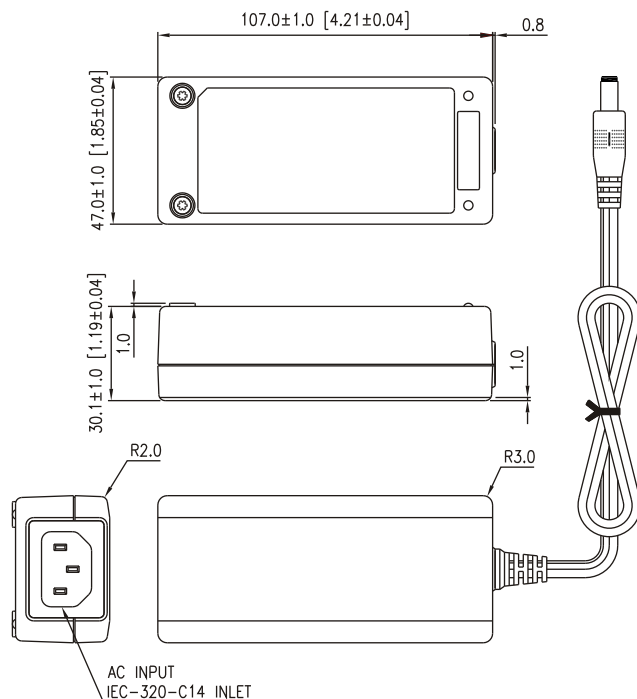
Sym.	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
Vps	Dielectric Withstanding Voltage for Primary to secondary	Primary to secondary	4242			VDC
Vpg	Dielectric Withstanding Voltage for Primary to Ground	Primary to ground	2121			VDC
Ris	Isolation Resistance	Test Voltage=500VDC	50			M Ω
CISPR	EMI requirements for CISPR-22	Vin=220VAC	B			CLASS
FCC	EMI requirements for FCC PART-15	Vin=110VAC	B			CLASS

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

Model Number	Output Voltage	Max. Output Current	Total Regulation <sup>①</sup>	Max. Output Watts
SPU41A-102	5 ~ 5.99 VDC	5.00 A	5%	30W
SPU41A-103	6.5 ~ 8 VDC	5.00 ~ 3.75 A	5%	30W
SPU41A-104	8 ~ 11 VDC	4.375 ~ 3.18 A	5%	35W
SPU41A-105	11 ~ 13 VDC	3.64 ~ 3.07 A	5%	40W
SPU41A-106	13 ~ 16 VDC	3.07 ~ 2.50 A	5%	40W
SPU41A-107	16 ~ 21 VDC	2.50 ~ 1.90 A	5%	40W
SPU41A-108	21 ~ 27 VDC	1.90 ~ 1.48 A	3%	40W
SPU41A-109	27 ~ 33 VDC	1.48 ~ 1.21 A	3%	40W
SPU41A-110	33 ~ 40 VDC	1.21 ~ 1.00 A	2%	40W
SPU41A-111	40 ~ 48 VDC	1.00 ~ 0.83 A	2%	40W

- ① SPU41A-102~105 are required to use AWG#16 / 4FT output cable.  
 SPU41A-106~108 are required to use AWG#18 / 4FT output cable.  
 SPU41A-109~111 are required to use AWG#18 / 6FT output cable  
 The regulation will be changed by modified output cable

### Mechanical Specifications :



### Note:

1. Dimensions are shown in mm.
2. Weight: 265~280gs approx.
3. Optional output connector: See page Appendix.