

# SPU21A series

20W Desk Top Type  
I.T.E. Power Supplies

## Features:

- Wide Operating Voltage 90 to 264 VAC, 47 to 63 Hz
- IEC-320-C14 Input Inlet
- Optional Output Connector (See page appendix)
- Single Output
- Class I
- Energy Star 2.0, Efficiency level V
- 2 year warranty



## Electrical Characteristics:

Vin	Safety Approvals Input Voltage Range	100~240VAC
	Operate Voltage Range	90~264VAC
fin	Input Frequency	47~63Hz
Po	Output Power Range	See rating chart
Vo	Output Voltage Range	See rating chart
Io	Output Current Range	See rating chart
Iil	Input Current (Low Line)	Io=Full load, Vin=100VAC 0.5A (max.)
Iih	Input Current (High Line)	Io=Full load, Vin=240VAC 0.25A (max.)
Ir	Low Line Inrush Current	Io=Full load, 25°C, Cool start, Vin=115VAC 25~50A
	High Line Inrush Current	Io=Full load, 25°C, Cool start, Vin=230VAC 50~100A (max.)
Eff	Efficiency	Io=Full Load, Vin=230VAC 76~85%
REG-i	Line Regulation	Io=Full Load 0.5~1%
REG-o	Load Regulation	Vin=230VAC 3~5%
OVP	Over Voltage Protection	Nil
OCP	Over Current Protection	Nil. But, Output protected to short circuit conditions
Ttr	Time of Transient Response	Io=Full Load to Half Load, Vin=100VAC 4mS (max.)
Th	Hold-Up Time	Io=Full Load, Vin=110VAC 8mS (min.)
Ts	Start Up Time	Io=Full Load, Vin=100VAC 2S (max.)
Vp-p	Ripple & Noise(Peak to Peak)	Full Load, Vin=90VAC 2% (max.)
Iik	Safety Ground Leakage Current	Vin=240VAC/60Hz 0.75mA (max.)
TC	Temperature Coefficient	All output ±0.04%/°C
Pno	No-Load Power Consumption	No load, Vin=230VAC See rating chart
Vps	Dielectric Withstanding Voltage for Primary to secondary	Primary to secondary 4242VDC (min.)
Vpg	Dielectric Withstanding Voltage for Primary to PE	Primary to PE 2121VDC (min.)
Ris	Isolation Resistance	Test Voltage=500VDC 50MΩ (min.)

## Application:

### Safety Approvals:



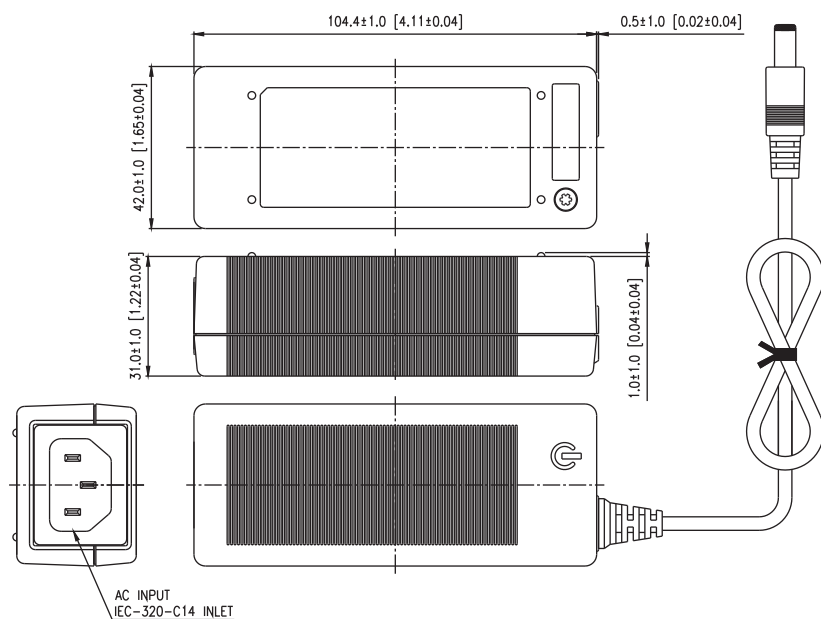
## Environmental

To	Operating Temperature	See derating curve
Ts	Storage Temperature	-40~85°C
Ho	Operating Humidity	0~95%
Hr	Storage Humidity	0~95%
MTBF	Operating Temperature at 25°C, Calculated per MIL-HDBK-217F	0.1M Hrs (min.)
Pd	Derate linearly from 100% load at 40°C to 50% load at 70°C	

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

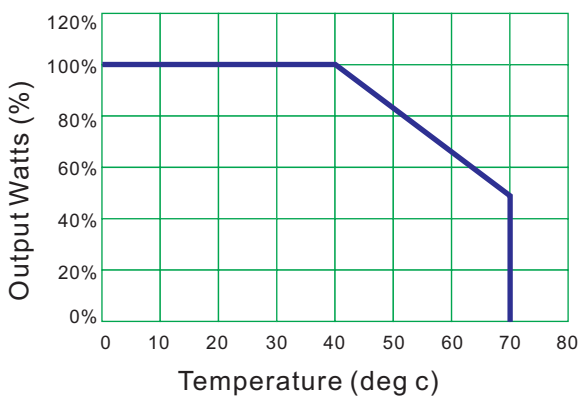
Model Number	Output Voltage	Output Current	Total Regulation	Max. Output Power	Pno (max.)
SPU21A-102	5 ~ 6 VDC	3.00 ~ 2.50 A	5%	15W	0.3W
SPU21A-103	6 ~ 8 VDC	2.50 ~ 1.87 A	5%	15W	0.3W
SPU21A-104	8 ~ 11 VDC	2.50 ~ 1.81 A	5%	20W	0.3W
SPU21A-105	11 ~ 13 VDC	1.81 ~ 1.53 A	5%	20W	0.3W
SPU21A-106	13 ~ 16 VDC	1.53 ~ 1.25 A	4%	20W	0.3W
SPU21A-107	16 ~ 21 VDC	1.25 ~ 0.95 A	4%	20W	0.3W
SPU21A-108	21 ~ 27 VDC	0.95 ~ 0.74 A	4%	20W	0.3W
SPU21A-109	27 ~ 33 VDC	0.74 ~ 0.60 A	3%	20W	0.3W
SPU21A-110	33 ~ 40 VDC	0.60 ~ 0.50 A	3%	20W	0.3W
SPU21A-111	40 ~ 50 VDC	0.50 ~ 0.40 A	3%	20W	0.3W

## Mechanical Specifications:



- Note:
1. Dimensions are shown in mm.
  2. Weight: 170gs approx.
  3. Optional output connector: See page Appendix.

## Derating Curve :



1. Operating Temperature: 0 to 70°C
2. Derate linearly from 100% load at 40°C to 50% load at 70°C