

# SPU 16D SERIES

## 15W Desk Top Switching Power Supplies For I.T.E.

### Description:

The SPU16D series of AC/DC switching mode power supplies provide 15 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
- A Stand And Mains AC Power Cord
- Optional Output Connector (See appendix)
- Single Output
- Energy Star 2.0, Efficiency level V
- Class II
- 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			15	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			0.4	A	
Iih	Input Current (High Line)	Io=Full load, Vin=230VAC			0.26	A	
Irl	Low Line Inrush Current	Io=Full load, 25°C, Cool start, Vin=115VAC		12	15	A	
Irh	High Line Inrush Current	Io=Full load, 25°C, Cool start, Vin=230VAC		26	30	A	
Eff	Efficiency	Io=Full Load, Vin=230VAC	75	79.15	86	%	
REG-i	Line Regulation	Io=Full Load		0.5	1	%	
REG-o	Load Regulation	Vin=230VAC		3	10	%	
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			4	ms	
Thold	Hold-Up Time	Io=Full Load, Vin=110VAC	8			ms	
Ts	Start Up Time	Io=Full Load, Vin=100VAC	0.3	1	2	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	

\* Note: The Ripple & Noise which is under 3.3VCD at 2% max

### Environmental :

Sym.	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
Tope	Operating Temperature		0	40	70	°C
Tstg	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
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
Ris	Isolation Resistance	Test Voltage=500VDC	50			MΩ
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 ) :

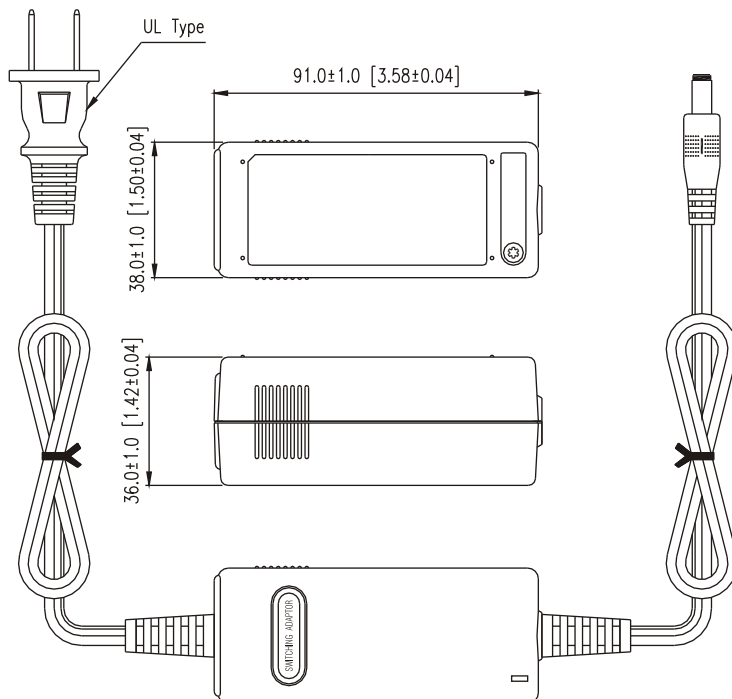
Model Number	Output Voltage	Output Current	Total Regulation	Maximum Output Power
SPU16D-101	3 ~ 5 VDC	2.50 A max	7%	12W
SPU16D-102	5 ~ 6 VDC	2.50 ~ 2.00 A	5%	12W
SPU16D-103	6 ~ 8 VDC	2.00 ~ 1.50 A	5%	12W
SPU16D-104	8 ~ 11 VDC	1.87 ~ 1.36 A	5%	15W
SPU16D-105	11 ~ 13 VDC	1.36 ~ 1.15 A	5%	15W
SPU16D-106	13 ~ 16 VDC	1.15 ~ 0.94 A	5%	15W
SPU16D-107	16 ~ 21 VDC	0.94 ~ 0.72 A	5%	15W
SPU16D-108	21 ~ 27 VDC	0.72 ~ 0.55 A	5%	15W
SPU16D-109	27 ~ 33 VDC	0.55 ~ 0.45 A	5%	15W
SPU16D-110	33 ~ 40 VDC	0.45 ~ 0.37 A	3%	15W
SPU16D-111	40 ~ 48 VDC	0.37 ~ 0.31 A	3%	15W

The output voltage under 15V had been approved by TUV/PSE.

SPU16D-101 had been approved by CEC level IV.

SPU16D-102~111 had been approved by CEC level V.

### Mechanical Specifications :



#### Note:

1. Dimensions are shown in mm.
2. Weight: 165gs approx. (Unincluded an input cord)
3. Optional output connector: See Page Appendix.