

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 60950-1:2ndEdition), TUV/GS (EN 60950-1:2ndEdition) 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 1
- 2 Year warranty

Safety Approvals



Specifications:

| 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 | % |
| Iik | 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 |
| Toper | Operating Temperature | | 0 | 40 | 70 | |
| Tstg | Storage Temperature | | -40 | | 85 | |
| Ho | Operating Humidity | | 0 | | 95 | |

Environmental:

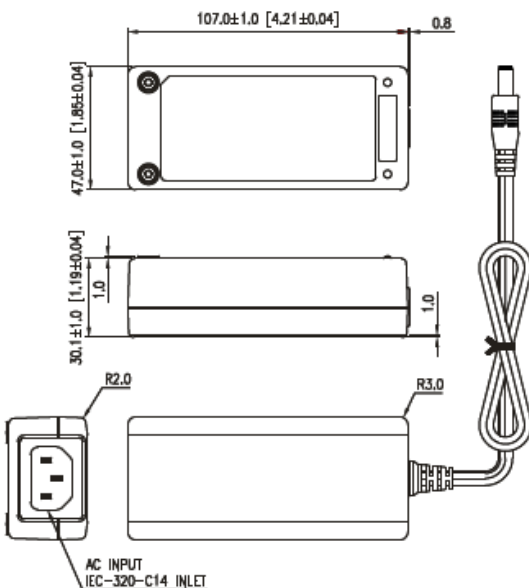
| Sym. | Parameter | Test Conditions | Min. | Typ. | Max. | Unit |
|-------|--------------------------------------------------------------|-----------------|------|------|------|------|
| Toper | Operating Temperature | | 0 | 40 | 70 | °C |
| Tstg | Storage Temperature | | -40 | | 85 | °C |
| Ho | Operating 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 | | | | | |

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 No | Output Voltage | Max. Output Current | Total Regulation | 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 |



Mechanical Specifications:

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

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