

SPU 12B SERIES

15W Wall Mount Switching Power Supplies For I.T.E.

Description:

The SPU12B series of AC/DC switching mode power supplies provide 15 Watts of continuous output power. All supplies are UL 94V-1 min compliant, include a 3 prong plug-in mains connector for certain applications. All models meet CISPR-22 class B emission Limits and are designed to comply with new CE requirements. All units are 100% burned in and tested.



Features:

- Wide Input Voltage 90 to 264 VAC, 47 to 63 Hz
- 3 Prong Plug-In Mains Connector
- Output Voltage Available From 3VDC Thru 50VDC
- Optional Output Connector (See appendix)
- Single Output
- Class II Insulation (Double Insulation)
- Two years warranty

Safety Approvals:



Electrical Characteristics:

| Sym. | Parameter | Test Conditions | Min. | Typ. | Max. | Unit |
|-------|-------------------------------|---|------------------|------|------|------|
| Vin | Input Voltage | Operating Voltage | 90 | | 264 | VAC |
| Fin | Input Frequency | | 47 | | 63 | Hz |
| Wo | Output Power Range | Vin=90 to 264VAC | 0 | | 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 | | | 0.3 | 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 | 60 | 70 | 78 | % |
| REG-i | Line Regulation | Io=Full Load | | 0.5 | 1 | % |
| REG-o | Load Regulation | Vin=230VAC | | 3 | 7 | % |
| OVP | Over Voltage Protection | | Nil | | | % |
| OCP | Over Current Protection | Nil But, Output protected to short circuit conditions | | | | % |
| Ttr | Transient Response | Io=Full Load to Half Load, Vin=100VAC | | | 4 | mS |
| Thold | Hold-Up Time | Io=Full Load, Vin=110VAC | 5 | | | mS |
| Ts | Start Up Time | Io=Full Load, Vin=100VAC | 0.3 | 1 | 2 | S |
| Vrn | Ripple & Noise (Peak to Peak) | Full Load, Vin=90VAC | | 1 | 2 | % |
| 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 |

Environmental :

| Sym. | Parameter | Test Conditions | Min. | Typ. | Max. | Unit |
|-------|--|-----------------|------|------|------|------|
| Toper | Operating Temperature | | 0 | | 70 | °C |
| Tstg | Storage Temperature | | -40 | | 85 | °C |
| Hr | Relative Humidity | No-Condensing | 5 | | 95 | % |
| 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 |
| Ri | 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 | Output Current | Total Regulation | Maximum Output Power |
|--------------|----------------|----------------|------------------|----------------------|
| SPU12B-101 | 3 ~ 5 VDC | 3.30 ~ 2.00 A | 7% | 10W |
| SPU12B-102 | 5 ~ 6 VDC | 2.00 ~ 1.66 A | 5% | 10W |
| SPU12B-103 | 6 ~ 8 VDC | 1.66 ~ 1.25 A | 5% | 10W |
| SPU12B-104 | 8 ~ 11 VDC | 1.50 ~ 1.09 A | 5% | 12W |
| SPU12B-105 | 11 ~ 13 VDC | 1.36 ~ 1.15 A | 5% | 15W |
| SPU12B-106 | 13 ~ 16 VDC | 1.15 ~ 0.93 A | 5% | 15W |
| SPU12B-107 | 16 ~ 21 VDC | 0.93 ~ 0.71 A | 3% | 15W |
| SPU12B-108 | 21 ~ 27 VDC | 0.71 ~ 0.55 A | 3% | 15W |
| SPU12B-109 | 27 ~ 33 VDC | 0.59 ~ 0.48 A | 3% | 16W |
| SPU12B-110 | 33 ~ 40 VDC | 0.45 ~ 0.37 A | 3% | 15W |
| SPU12B-111 | 40 ~ 50 VDC | 0.37 ~ 0.30 A | 3% | 15W |

Mechanical Specifications: (UK Type)

Note:

1. Dimensions are shown in mm.
2. Weight: 115gs approx.
3. Optional output connector: See page Appendix.

