

### 100W Open Frame Switching Power Supplies For I.T.E.

#### Description:

The SBU100 series of compact, open frame constructed, AC/DC switching mode power supplies provide 100 Watts of continuous output power. They are suited for use in based systems, portable equipments and many other applications. 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/Bauart (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 260 VAC, 47 to 63 Hz
- Internal EMI filter
- Single Output
- Input connector mates with Molex housing 09-50-3051 and Molex 2478 series crimp terminal
- Output connector mates with Molex housing 09-50-3131 and Molex 2478 series crimp terminal
- Input Surge Current, Over Voltage and Over Load protection
- Over Voltage Protection (Crowbar Design)
- Active Power Factor Correction
- Size: 3"x5"x1.18"
- 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		260	VAC
fin	Input Frequency		47		63	Hz
PF	Power Factor Correction	Io=Full load, Vin=90~260VAC	0.95	0.97	1.0	
Po	Output Power Range	Vin=90 to 260 VAC	0		100	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			1.6	A
Iih	Input Current (High Line)	Io=Full load, Vin=230VAC			0.8	A
Irl	Low Line Inrush Current	Io=Full load, 25°C, Cool start, Vin=115VAC		44	50	A
Irh	High Line Inrush Current	Io=Full load, 25°C, Cool start, Vin=230VAC		88	100	A
Eff	Efficiency	Io=Full load, Vin=230VAC	70	80	85	%
REG-i	Line Regulation	Io=Full load		0.5	1	%
REG-o	Load Regulation	Vin=230VAC		3	5	%
OVP	Over Voltage Protection		112		132	%
OC	Over Current Protection		110		150	%
Ttr	Time of Transient Response	Io=Full load to Half Load, Vin=100VAC			4	mS
Thold	Hold-Up Time	Io=Full load, Vin=110VAC	16			mS
Ts	Start Up Time	Io=Full load, Vin=100VAC			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 3.3VDC at 2% max

#### Environmental :

Sym.	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
ToPer	Operating Temperature		0	50	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 50°C to 50% load at 70°C					

## 100W Open Frame Switching Power Supplies For I.T.E.

### 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	Output Current	Total Regulation	Maximum Output Power
SBU100-101	3 ~ 5 VDC	18.00 ~ 10.80 A	5%	54W
SBU100-102	5 ~ 6 VDC	14.00 ~ 11.66 A	5%	70W
SBU100-103	6 ~ 9 VDC	13.33 ~ 8.88 A	5%	80W
SBU100-104	9 ~ 11 VDC	11.11 ~ 9.09 A	5%	100W
SBU100-105	11 ~ 13 VDC	9.09 ~ 7.69 A	3%	100W
SBU100-106	13 ~ 16 VDC	7.69 ~ 6.25 A	3%	100W
SBU100-107	16 ~ 21 VDC	6.25 ~ 4.76 A	3%	100W
SBU100-108	21 ~ 27 VDC	4.76 ~ 3.70 A	2%	100W
SBU100-109	27 ~ 33 VDC	3.70 ~ 3.03 A	2%	100W
SBU100-110	33 ~ 40 VDC	3.03 ~ 2.50 A	2%	100W
SBU100-111	40 ~ 50 VDC	2.50 ~ 2.00 A	2%	100W

### PIN CHART

MODEL	PIN	1	2	3	4	5	6	7	8	9	10	11	12	13
SBU100-1XX-13PIN		OUT	OUT	OUT	OUT	OUT	OUT	RTN	RTN	RTN	RTN	RTN	RTN	N/C

### Note:

1. Dimensions are shown in inches or mm.
2. Weight: 345gs approx.
3. Input connector mates with Molex housing 09-50-3051 and Molex 2478 series crimp terminal.
4. Output connector mates with Molex housing 09-50-3131 and Molex 2478 series crimp terminal.

### Mechanical Specifications :

