

# SBU120 SERIES

## 120W Open Frame Switching Power Supplies For I.T.E.

### Description:

The SBU120 series of compact, open frame constructed, AC/DC switching mode power supplies provide 120 Watts of continuous output power. They are ideally suited for use in CRT terminals, disc drive systems, microprocess or 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) ,TUV/GS(EN 60950) and new CE requirements. All units are 100% burned in and tested.

### Features:

- Wide Input Voltage 90 to 264 VAC,47 to 63 Hz
- Internal EMI filter
- Single to Triple Output
- Input connector mates with Molex housing 09-50-3051 and Molex 2878 series crimp terminal
- Output connector mates with Molex housing 09-50-3061; 09-50-3131 and Molex 2878 series crimp terminal
- Output Voltage Available From 3 VDC Thru 50 VDC
- Input Surge Current, Over Voltage and Over Load protection
- Power Factor Correction
- Power Fail Detect(Optional)
- Class I Insulation
- Size: 3"x5"x1.32"
- Two Years Warranty



### Safety Approvals :



### Electrical Characteristics:

Sym.	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
V <sub>in</sub>	Input Voltage	Operating Voltage	90		264	VAC
F <sub>in</sub>	Input Frequency		47		63	Hz
PFC	Power Factor Correction	I <sub>o</sub> =Full load, V <sub>in</sub> =90~260VAC	0.95	0.97	1.0	
W <sub>o</sub>	Output Power Range	V <sub>in</sub> =90 to 264 VAC	0		120	W
V <sub>o</sub>	Output Voltage Range		See rating Chart			V
I <sub>o</sub>	Output Current Range		See rating Chart			A
I <sub>il</sub>	Input Current (Low Line)	I <sub>o</sub> =Full load, V <sub>in</sub> =115VAC			1.7	A
I <sub>ih</sub>	Input Current (High Line)	I <sub>o</sub> =Full load, V <sub>in</sub> =230VAC			1.0	A
I <sub>rl</sub>	Low Line Inrush Current	I <sub>o</sub> =Full load, 25°C, Cool start, V <sub>in</sub> =115VAC		12	15	A
I <sub>rh</sub>	High Line Inrush Current	I <sub>o</sub> =Full load, 25°C, Cool start, V <sub>in</sub> =230VAC		26	30	A
Eff	Efficiency	I <sub>o</sub> =Full load, V <sub>in</sub> =230VAC	70	80	88	%
REG-i	Line Regulation	I <sub>o</sub> =Full load		0.5	1	%
REG-o	Load Regulation	V <sub>in</sub> =230VAC		3	5	%
OVP	Over Voltage Protection		112		132	%
OCP	Over Current Protection		110		150	%
T <sub>tr</sub>	Transient Response	I <sub>o</sub> =Full load to Half Load, V <sub>in</sub> =100VAC			4	mS
Thold	Hold-Up Time	I <sub>o</sub> =Full load, V <sub>in</sub> =110VAC	16	18	20	mS
T <sub>s</sub>	Start Up Time	I <sub>o</sub> =Full load, V <sub>in</sub> =100VAC	0.3	1	2	S
V <sub>p-p</sub>	Ripple & Noise (Peak to Peak)	Full load, V <sub>in</sub> =90VAC		1	2	%
I <sub>lk</sub>	Safety Ground Leakage Current	I <sub>o</sub> =Full load, V <sub>in</sub> =240VAC		0.4	0.45	mA
T <sub>c</sub>	Temperature Coefficient	All output	-0.04		0.04	%/°C

### Environmental :

Sym.	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
T <sub>oper</sub>	Operating Temperature		0		70	°C
T <sub>stg</sub>	Storage Temperature		-40		85	°C
H <sub>r</sub>	Relative Humidity		5		95	%
P <sub>d</sub>	Derate linearly from 100% load at 50°C to 50% load at 70°C					

### Safety Specifications:

Sym.	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
V <sub>ps</sub>	Dielectric Withstanding Voltage for Primary to secondary	Primary to secondary	4242			VDC
V <sub>pg</sub>	Dielectric Withstanding Voltage for Primary to Ground	Primary to ground	2121			VDC
R <sub>i</sub>	Isolation Resistance	Test Voltage=500VDC	50			MΩ
CISPR	EMI requirements for CISPR-22	V <sub>in</sub> =220VAC	B			CLASS
FCC	EMI requirements for FCC PART-15	V <sub>in</sub> =110VAC	B			CLASS

# SBU120 SERIES

## 120W Open Frame Switching Power Supplies For I.T.E.

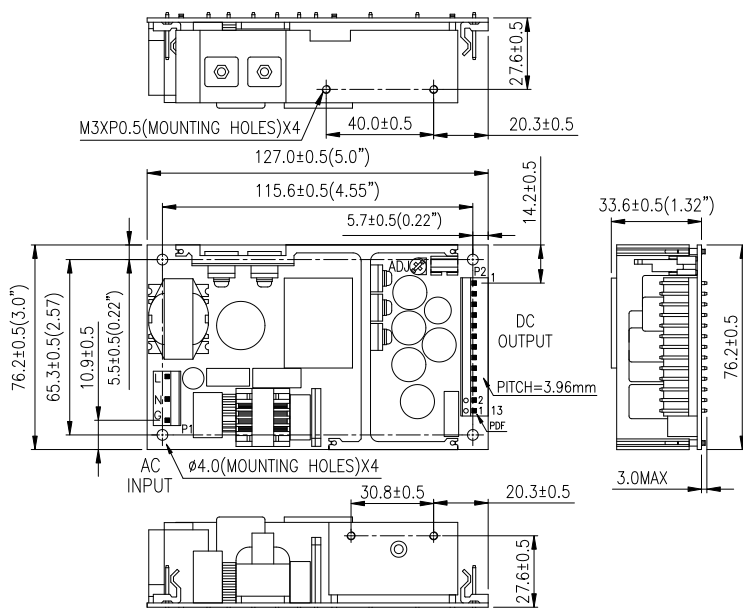
### Output Voltage And Current Rating Chart (Single Output) :

Model Number	OUTput Voltage	OUTput Current	Total Regulation	Maximum OUTput Power
SBU120-101	3 ~ 5 VDC	22.00 ~ 20.00 A	5%	100W
SBU120-102	5 ~ 6 VDC	22.00 ~ 18.33 A	5%	110W
SBU120-103	6 ~ 9 VDC	19.16 ~ 12.77 A	5%	115W
SBU120-104	9 ~ 11 VDC	13.33 ~ 10.90 A	4%	120W
SBU120-105	11 ~ 13 VDC	10.90 ~ 9.23 A	3%	120W
SBU120-106	13 ~ 16 VDC	9.23 ~ 7.50 A	3%	120W
SBU120-107	16 ~ 21 VDC	7.50 ~ 5.71 A	3%	120W
SBU120-108	21 ~ 27 VDC	5.71 ~ 4.44 A	2%	120W
SBU120-109	27 ~ 33 VDC	4.44 ~ 3.63 A	2%	120W
SBU120-110	33 ~ 40 VDC	3.63 ~ 3.00 A	2%	120W
SBU120-111	40 ~ 50 VDC	3.00 ~ 2.40 A	2%	120W

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

Model Number	Output#1				Output#2				Output#3				Maximum Output Power
	Vonom	Iomin	Iomax	Regmax	Vonom	Iomin	Iomax	Regmax	Vonom	Iomin	Iomax	Regmax	
SBU120-200	+3.3V	1.5A	15A	5%	+12V	0.6A	6A	5%					120W
SBU120-201	+5V	1.5A	15A	5%	+12V	0.8A	6A	5%					120W
SBU120-202	+5V	1.5A	15A	5%	+15V	0.6A	6A	5%					120W
SBU120-203	+5V	1.5A	15A	5%	+24V	0.4A	3.5A	5%					120W
SBU120-204	+3.3V	1.5A	15A	5%	+5V	0.6A	6A	5%					79.5W
SBU120-215	+5V	1.5A	15A	5%	-24V	0.2A	2A	5%					120W
SBU120-219	+28V	0.4A	3.92A	5%	+5V	0A	2A	5%					120W
SBU120-300	+3.3V	1.5A	15A	5%	+12V	0.6A	6A	5%	-12V	0A	0.8A	5%	120W
SBU120-300-1	+3.3V	1.5A	15A	5%	+12V	0.6A	6A	5%	+12V	0A	0.8A	5%	120W
SBU120-301	+5V	1.5A	15A	5%	+12V	0.8A	6A	5%	-5V	0A	0.8A	5%	120W
SBU120-301-1	+5V	1.5A	15A	5%	+12V	0.8A	6A	5%	+5V	0A	0.8A	5%	120W
SBU120-302	+5V	1.5A	15A	5%	+12V	0.8A	6A	5%	-12V	0A	0.8A	5%	120W
SBU120-302-1	+5V	1.5A	15A	5%	+12V	0.8A	6A	5%	+12V	0A	0.8A	5%	120W
SBU120-303	+5V	1.5A	15A	5%	+15V	1.0A	6A	5%	-15V	0A	0.8A	5%	120W
SBU120-303-1	+5V	1.5A	15A	5%	+15V	1.0A	6A	5%	+15V	0A	0.8A	5%	120W
SBU120-304	+5V	1.5A	15A	5%	+24V	0.45A	3.5A	5%	-24V	0.25A	0.8A	5%	120W
SBU120-304-1	+5V	1.5A	15A	5%	+24V	0.45A	3.5A	5%	+24V	0.25A	0.8A	5%	120W
SBU120-305	+5V	1.5A	15A	5%	+24V	0.4A	3.5A	5%	-12V	0A	0.8A	5%	120W
SBU120-305-1	+5V	1.5A	15A	5%	+24V	0.4A	3.5A	5%	+12V	0A	0.8A	5%	120W
SBU120-306	+3.3V	1.5A	15A	5%	+12V	0.8A	6A	5%	-5V	0A	0.8A	5%	120W
SBU120-306-1	+3.3V	1.5A	15A	5%	+12V	0.8A	6A	5%	+5V	0A	0.8A	5%	120W
SBU120-307	+5V	1.5A	15A	5%	+10V	0.6A	6A	5%	-10V	0A	1.0A	5%	120W
SBU120-307-1	+5V	1.5A	15A	5%	+10V	0.6A	6A	5%	+10V	0A	1.0A	5%	120W
SBU120-308	+3.3V	1.5A	15A	5%	+5V	0.8A	6A	5%	-12V	0A	1.0A	5%	91.5W
SBU120-308-1	+3.3V	1.5A	15A	5%	+5V	0.8A	6A	5%	+12V	0A	1.0A	5%	91.5W

### Mechanical Specifications :



### PIN CHART

MODEL	PIN	1	2	3	4	5	6	7	8	9	10	11	12	13 (Optional)
SBU120-1XX-13PIN	OUT	OUT	OUT	OUT	OUT	OUT	RTN	RTN	RTN	RTN	RTN	RTN	RTN	PFD
SBU120-219-6PIN	Vo1	Vo1	COM	COM	Vo2									PFD
SBU120-2XX-13PIN	Vo2	Vo1	Vo1	Vo1	Vo1	Vo1	COM	COM	COM	N/C	COM	COM	COM	PFD
SBU120-3XX-13PIN	Vo2	Vo2	Vo1	Vo1	Vo1	Vo1	COM	COM	COM	Vo3	COM	COM	COM	PFD

Note: Vo1:Output#1 Vo2:Output#2 Vo3:Output#3

### Note:

1. Dimensions are shown in inches or mm .
2. Weight: 330~380gs approx.
3. Input connector mates with Molex housing 09-50-3051 and Molex 2878 series crimp terminal.
4. Output connector mates with Molex housing 09-50-3061 ;09-50-3131 and Molex 2878 series crimp terminal.