

# SBU60 SERIES

## 63W Open Frame Switching Power Supplies For I.T.E.

### Description:

The SBU60 series of compact, open frame constructed, AC/DC switching mode power supplies provide 63 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 are designed to meet the safety requirements of UL1950/EN60950 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 Quad 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 (or 09-50-3081) and Molex 2878 series crimp terminal
- Output Voltage Available From 3 VDC Thru 50 VDC
- Input Surge Current, Over Voltage and Over Load protection
- One Year Warranty



### Safety Approvals :



### Electrical Characteristics:

Sym.	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
Vin	Input Voltage		90		264	VAC
Fin	Input Frequency		47		63	Hz
Wo	Output Power Range	Vin=90 to 264VAC	0		63	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=230 VAC			1.0	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	70	80	88	%
REG-i	Line Regulation	Io=Full Load		0.5	1	%
REG-o	Load Regulation	Vin=230VAC		3	6	%
OVP	Over Voltage Protection		112		132	%
OCP	Over Current Protection		110		150	%
Ttr	Transient Response	Io=Full Load to Half Load, Vin=100VAC			4	mS
Thold	Hold-Up Time	Io=Full Load, Vin=100VAC	18	20		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		0.4	0.45	mA
Tc	Temperature Coefficient	Final value within 500us after 25% step	1		4	%/ 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		5		95	%
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
Ri	Isolation Resistance	Test Voltage = 500VDC	50			M
CISPR	EMI requirements for CISPR-22	Vin=220VAC	B			CLASS
FCC	EMI requirements for FCC PART-15	Vin=110VAC	B			CLASS

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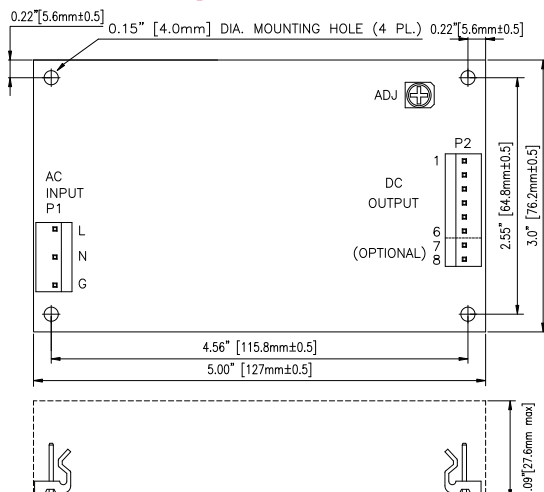
## 63W Open Frame Switching Power Supplies For I.T.E. Output Voltage And Current Rating Chart (Single Output) :

Model Number	Output Voltage	Output Current	Total Regulation	Maximum Output Power
SBU60-101	3 ~ 5 VDC	16.6 ~ 10.0 A	5%	50W
SBU60-102	5 ~ 6 VDC	11.0 ~ 9.16 A	5%	55W
SBU60-103	6 ~ 8 VDC	10.0 ~ 7.50 A	4%	60W
SBU60-104	8 ~ 11 VDC	7.87 ~ 5.72 A	3%	63W
SBU60-105	11 ~ 13 VDC	5.72 ~ 4.84 A	3%	63W
SBU60-106	13 ~ 16 VDC	4.84 ~ 3.93 A	3%	63W
SBU60-107	16 ~ 21 VDC	3.93 ~ 3.00 A	3%	63W
SBU60-108	21 ~ 27 VDC	3.00 ~ 2.33 A	2%	63W
SBU60-109	27 ~ 33 VDC	2.33 ~ 1.90 A	2%	63W
SBU60-110	33 ~ 40 VDC	1.90 ~ 1.57 A	2%	63W
SBU60-111	40 ~ 50 VDC	1.57 ~ 1.26 A	2%	63W

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

Model Number	Output #1				Output #2				Output #3				Output #4				Maximum Output Power
	Voncom	Iomin	Iomax	Regmax	Voncom	Iomin	Iomax	Regmax	Voncom	Iomin	Iomax	Regmax	Voncom	Iomin	Iomax	Regmax	
SBU60-200	+3.3V	0.7A	7A	6%	+12V	0.3A	3A	5%									59.1W
SBU60-201	+5V	0.7A	7A	5%	+12V	0.3A	3A	5%									63W
SBU60-202	+5V	0.7A	7A	5%	+15V	0.3A	3A	5%									63W
SBU60-203	+5V	0.7A	7A	5%	+24V	0.2A	2A	5%									63W
SBU60-204	+3.3V	0.7A	7A	6%	+5V	0.5A	5A	5%									48.1W
SBU60-215	+5V	0.7A	7A	5%	-24V	0.2A	2A	5%									63W
SBU60-218	+3.3V	0.5A	5A	6%	+48V	0.1A	1.25A	5%									63W
SBU60-219	+5V	0.5A	5A	5%	+28V	0.2A	2A	5%									63W
SBU60-220	+5V	0.5A	5A	5%	+35V	0.1A	1.5A	5%									63W
SBU60-221	+5V	0.5A	5A	5%	+36V	0.1A	1.5A	5%									63W
SBU60-300	+3.3V	0.6A	6A	6%	+12V	0.3A	3A	5%	-12V	0A	0.8A	5%					63W
SBU60-300-1	+3.3V	0.6A	6A	6%	+12V	0.3A	3A	5%	+12V	0A	0.8A	5%					63W
SBU60-301	+5V	0.6A	6A	5%	+12V	0.3A	3A	5%	-5V	0A	0.8A	5%					63W
SBU60-301-1	+5V	0.6A	6A	5%	+12V	0.3A	3A	5%	+5V	0A	0.8A	5%					63W
SBU60-302	+5V	0.6A	6A	5%	+12V	0.3A	3A	5%	-12V	0A	0.8A	5%					63W
SBU60-302-1	+5V	0.6A	6A	5%	+12V	0.3A	3A	5%	+12V	0A	0.8A	5%					63W
SBU60-303	+5V	0.6A	6A	5%	+15V	0.3A	3A	5%	-15V	0A	0.8A	5%					63W
SBU60-303-1	+5V	0.6A	6A	5%	+15V	0.3A	3A	5%	+15V	0A	0.8A	5%					63W
SBU60-304	+5V	0.6A	6A	5%	+24V	0.2A	2A	5%	-24V	0A	0.5A	5%					63W
SBU60-304-1	+5V	0.6A	6A	5%	+24V	0.2A	2A	5%	+24V	0A	0.5A	5%					63W
SBU60-305	+5V	0.6A	6A	5%	+24V	0.2A	2A	5%	-12V	0A	0.8A	5%					63W
SBU60-305-1	+5V	0.6A	6A	5%	+24V	0.2A	2A	5%	+12V	0A	0.8A	5%					63W
SBU60-306	+3.3V	0.6A	6A	6%	+12V	0.3A	3A	5%	-5V	0A	0.8A	5%					59.8W
SBU60-306-1	+3.3V	0.6A	6A	6%	+12V	0.3A	3A	5%	+5V	0A	0.8A	5%					59.8W
SBU60-307	+5V	0.6A	6A	5%	+10V	0.2A	2A	5%	-10V	0A	1A	5%					60W
SBU60-307-1	+5V	0.6A	6A	5%	+10V	0.2A	2A	5%	+10V	0A	1A	5%					60W
SBU60-308	+3.3V	0.5A	5A	6%	+5V	0.5A	5A	5%	+12V	0A	1A	5%					53.5W
SBU60-308-1	+3.3V	0.5A	5A	6%	+5V	0.5A	5A	5%	-12V	0A	1A	5%					53.5W
SBU60-400	+3.3V	0.6A	6A	6%	+12V	0.3A	3A	5%	-12V	0A	0.8A	5%	-5V	0A	0.8A	5%	63W
SBU60-400-1	+3.3V	0.6A	6A	6%	+12V	0.3A	3A	5%	-12V	0A	0.8A	5%	+5V	0A	0.8A	5%	63W
SBU60-400-2	+3.3V	0.6A	6A	6%	+12V	0.3A	3A	5%	+12V	0A	0.8A	5%	-5V	0A	0.8A	5%	63W
SBU60-400-3	+3.3V	0.6A	6A	6%	+12V	0.3A	3A	5%	+12V	0A	0.8A	5%	+5V	0A	0.8A	5%	63W
SBU60-401	+5V	0.6A	6A	5%	+12V	0.3A	3A	5%	-12V	0A	0.8A	5%	-5V	0A	0.8A	5%	63W
SBU60-401-1	+5V	0.6A	6A	5%	+12V	0.3A	3A	5%	-12V	0A	0.8A	5%	+5V	0A	0.8A	5%	63W
SBU60-401-2	+5V	0.6A	6A	5%	+12V	0.3A	3A	5%	+12V	0A	0.8A	5%	-5V	0A	0.8A	5%	63W
SBU60-401-3	+5V	0.6A	6A	5%	+12V	0.3A	3A	5%	+12V	0A	0.8A	5%	+5V	0A	0.8A	5%	63W
SBU60-402	+5V	0.6A	6A	5%	+12V	0.3A	3A	5%	-12V	0A	0.8A	5%	+12V	0A	0.8A	5%	63W
SBU60-402-1	+5V	0.6A	6A	5%	+12V	0.3A	3A	5%	+12V	0A	0.8A	5%	+12V	0A	0.8A	5%	63W
SBU60-402-2	+5V	0.6A	6A	5%	+12V	0.3A	3A	5%	+12V	0A	0.8A	5%	-12V	0A	0.8A	5%	63W
SBU60-402-3	+5V	0.6A	6A	5%	+12V	0.3A	3A	5%	-12V	0A	0.8A	5%	-12V	0A	0.8A	5%	63W
SBU60-403	+5V	0.6A	6A	5%	+12V	0.3A	3A	5%	-12V	0A	0.8A	5%	+24V	0A	0.8A	5%	63W
SBU60-403-1	+5V	0.6A	6A	5%	+12V	0.3A	3A	5%	+12V	0A	0.8A	5%	+24V	0A	0.8A	5%	63W
SBU60-403-2	+5V	0.6A	6A	5%	+12V	0.3A	3A	5%	+12V	0A	0.8A	5%	-24V	0A	0.8A	5%	63W
SBU60-403-3	+5V	0.6A	6A	5%	+12V	0.3A	3A	5%	-12V	0A	0.8A	5%	-24V	0A	0.8A	5%	63W
SBU60-404	+5V	0.6A	6A	5%	+15V	0.3A	3A	5%	-15V	0A	0.8A	5%	-5V	0A	0.8A	5%	63W
SBU60-404-1	+5V	0.6A	6A	5%	+15V	0.3A	3A	5%	-15V	0A	0.8A	5%	+5V	0A	0.8A	5%	63W
SBU60-404-2	+5V	0.6A	6A	5%	+15V	0.3A	3A	5%	+15V	0A	0.8A	5%	-5V	0A	0.8A	5%	63W
SBU60-404-3	+5V	0.6A	6A	5%	+15V	0.3A	3A	5%	+15V	0A	0.8A	5%	+5V	0A	0.8A	5%	63W
SBU60-423	+5V	0.1A	1A	5%	+24V	0.1A	1.8A	5%	-15V	0A	0.1A	5%	+12V	0A	0.8A	5%	59.3W

## Mechanical Specifications :



## PIN CHART

MODEL	PIN 1	2	3	4	5	6	7	8
SBU60-1XX	Output #1	Output #1	Output #1	RETURN	RETURN	RETURN		
SBU60-2XX	Output #2	Output #1	Output #1	COMMON	COMMON	N/C		
SBU60-3XX	Output #2	Output #1	Output #1	COMMON	COMMON	Output #3		
SBU60-4XX	Output #2	Output #1	Output #1	COMMON	COMMON	Output #3	Output #4	Output #4

## Note:

- Dimensions are shown in mm.
- Weight: 250gs approx.
- Input connector mates with Molex housing 09-50-3051 and Molex 2878 series crimp terminal.
- Output connector mates with Molex housing 09-50-3061 (or 09-50-3081) and Molex 2878 series crimp terminal.
- For optional U-bracket change "U" to part number . example : SUU60-XXX