General

SINPRO

SBU151 series V1.4

150W Open Frame Power Supply for General Purpose

The SBU151 series of AC/DC switching mode power supplies provide 150 Watts of continuous output power . All models meet EN 55032, BS EN55032 class B and AS/NZS CISPR 32 class B emission Limits and are designed to comply with UL/c-UL and CE marking conformity assessment. All units pass burn-in test at full load condition.

APPROVALS:

FEATURES:

* Wide Operating Voltage, 90 to 260 VAC, 47 to 63 Hz
* Internal EMI filter
* Active Power Factor Correction
* Crowbar Mode Over Voltage Protection
* Synchronous Rectification
* Single Output
* Class I system
* 3 year warranty

APPLICATIONS:

* Industrial PC
* Electrical Test & Measurement Instruments
* Communication equipment
* AV equipment

GENERAL SPECIFICATION:

* **Short Circuit Protection**: Auto Recovery
* **Cooling**: Free Air Convection
* **Protection Classes**: Class I
* **Safety**: IEC 62368-1 Edition 2.0, UL 62368-1, CAN/CSA-C22.2 NO.62368-1-14, EN 62368-1:2014/A11

Electrical Characteristics:

Symbol	Characteristic	Condition	Min.	Typ.	Max.	Unit
Vins	Safety Approval Input Voltage Range	Safety Approval & Specification in Label	100		240	VAC
Vin	Input Operate Voltage Range	Detail to see Fig.1	90		260	VAC
Fi	Input Frequency	Sine wave	47		63	Hz
PF	Power Factor Correction	Io=Full load, Vin=240VAC	0.95		1	
Po	Output Power Range	See Rating Chart			150	W
Iil	Low Line Input Current	Full Load, Vin=100VAC		2.0		A
Iih	High Line Input Current	Full Load, Vin=240VAC		0.8		A
Irl	Low Line Input Inrush Current	Full Load, 25°C, Cool start, Vin=100VAC			40	A
Irh	High Line Input Inrush Current	Full Load, 25°C, Cool start, Vin=240VAC			100	A
Ik	Safety Ground Leakage Current	Vin=240VAC, Fi=60Hz			0.75	mA
η	Efficiency	Full Load, Vin=230VAC, Detail to see Rating Chart	See Rating Chart			
▵Voi	Line Regulation	Full Load, Vin=100~120VAC	0.5		1	%
▵VoL	Load Regulation	Vin=230VAC, 10~90% Load Change at Condition	2		5	%
OVP	Over Voltage Protection	Over Voltage Protection	112		132	%
OLP	Over Load Protection	Recovers automatically after fault condition is removed	110		150	%
ttr	Time of Transient Response	Io=Full Load to Half Load, Vin=110VAC			4	ms
thu	Hold-Up Time	Full Load, Vin=100VAC	See Rating Chart			
ts	Start-up time	Full Load, Vin=100~240VAC			3	s
Tc	Temperature Coefficient	Full load, Vin=100~240VAC			±0.04	%/°C
HV	Dielectric Withstanding Voltage (P-S)	Primary to Secondary			4242	VDC
Vpg	Dielectric Withstanding Voltage (P-G)	Primary to PE			2121	VDC
EMI	EMC Emission	Compliance to EN55032 (CISPR32)			B	Class

Environmental:

Symbol	Characteristic	Condition	Min.	Typ.	Max.	Unit
To	Operating Temperature	Detail to see Fig.2 (Derate linearly from 100% load at 50°C to 50% load at 70°C)	0		70	°C
Ts	Storage Temperature	10 ~ 95% RH	-40		85	°C
Ho	Operating Humidity	non-condensing	0		95%	RH
Hs	Storage Humidity		0		95%	RH
ESDa	Electro Static Discharge	Air Discharge, IEC61000-4-2			8	kV
ESDc	Electro Static Discharge	Contact Discharge, IEC61000-4-2			4	kV
MTBF	Mean Time Between Failure	Operating Temperature at 25°C, Calculated per MIL-HDBK-217F	100k			h
ELEV	Operating Altitude (Elevation)	All condition			2000	m
VBR	Vibration	10 ~ 500Hz, 10min./1cycle, 60min. each along X, Y, Z axes			5	G
Vsl	Surge Voltage	Line-Neutral			1	kV
Vsg	Surge Voltage	Line-PE & Neutral-PE			2	kV

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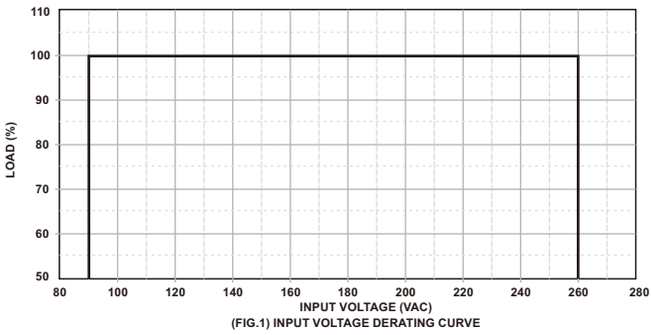
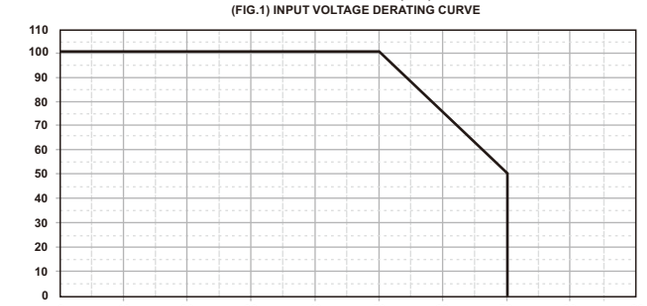
SPECIFICATION NOTE :

1. Output can provide up to peak load when the power supply starts up. Continuous staying in more than rated load is not allowed.
2. At factory, in 60% rated load condition, each output is checked to be within voltage accuracy.
3. Line regulation is defined by changing ±10% of input voltage from nominal line at rated load.
4. Load regulation is defined by changing ±40% of measured output load from 60% rated load.
5. The ripple is measured from peak to peak with a bandwidth-limit of 20MHz (Measured at the output connector with a 0.1uF ceramic capacitor and a 47uF electrolytic capacitor).
6. Hold up time is measured from the end of the last charging pulse to the time which the main output drops down to low limit of main output at rated load and nominal line.
7. Efficiency is measured at rated load, and nominal line.

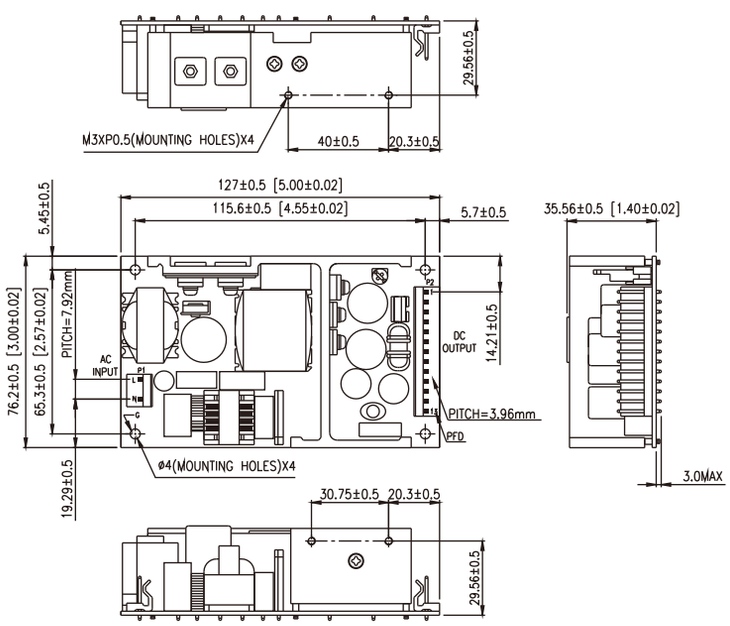


(FIG.1) INPUT VOLTAGE DERATING CURVE



(FIG.2) TEMPERATURE DERATING CURVE

MECHANICAL DIMENSIONS: (UNIT: mm [inch])



PACKING :

1. Dimensions are shown in mm.
2. Weight: 390gs approx.
3. Input connector mates with Molex housing 09-52-4034 and Molex 2478 series crimp terminal .
4. Output connector mates with Molex housing 09-52-4134 and Molex 2478 series crimp terminal.

PIN CHART

MODEL \ PIN	1	2	3	4	5	6	7	8	9	10	11	12	13 (Optional)
SBU151-1XX	OUT	OUT	OUT	OUT	OUT	OUT	RTN	RTN	RTN	RTN	RTN	RTN	PFD

Rating Chart:

MODEL NO.	Setting Voltage Range (Factory setting, can't be adjusted)	Output Current (Based on the output volt.)	Maximum Output Power	Ripple & Noise	Total Regulation	Typ. Efficiency	Typ. No Load Consumption	Hold-Up Time	Protection Mode
	(VDC)	(A)	(W)	(mVp-p)	(%)	(%)	(W)	(ms)	
*SBU151-104	9.0	16.0	144	90	±5	83	3.5	16	Hiccup
*SBU151-105	12.0	12.5	150	120	±5	85	3.5	16	Hiccup
*SBU151-106	15.0	10.0	150	150	±5	85	3.5	16	Hiccup
*SBU151-107	18.0	8.33	150	180	±4	85	3.5	16	Hiccup
SBU151-108	24.0	6.25	150	200	±3	86	3.5	16	Hiccup
*SBU151-109	30.0	5.00	150	300	±2	86	3.5	16	Hiccup
*SBU151-110	36.0	4.17	150	300	±2	86	3.5	16	Hiccup
*SBU151-111	48.0	3.13	150	300	±2	86	3.5	16	Hiccup

[*] =MOQ is required. Please contact sales.