

STFA99 SERIES

100W Open Frame Power Supply for I.T. Equipment

- Wide Operating Voltage, 90 to 260 VAC, 47 to 63 Hz
- Internal EMI filter
- Active Power Factor Correction
- Crowbar Mode Over Voltage Protection
- Single Output
- Class I system

3 Year Warranty

Approvals:

Single Output

PART NO.	Setting Voltage Range (Factory setting, can't be adjusted)		Output Current (Based on the output volt.)		Max. Output Power (W)	Ripple & Noise (mVp-p)	Total Reg. (%)	Typ. Efficiency (%)	Typ. No Load Power (W)	Hold up time (ms)	Protection Mode
	min	max	min	max							
	(VDC)	(VDC)	(A)	(A)							
STFA99-S05	11.0	13.0	7.69	8.33	100	100	±3	87	0.5	16	Hiccup
STFA99-S06	13.0	16.0	6.25	7.69	100	120	±3	87	0.5	16	Hiccup
STFA99-S07	16.0	21.0	4.76	6.25	100	150	±3	88	0.5	16	Hiccup
STFA99-S08	21.0	27.0	3.70	4.76	100	150	±3	88	0.5	16	Hiccup
STFA99-S09	27.0	33.0	3.03	3.70	100	200	±3	88	0.5	16	Hiccup
STFA99-S10	33.0	40.0	2.50	3.03	100	200	±3	88	0.5	16	Hiccup
STFA99-S11	40.0	48.0	2.00	2.50	100	200	±3	89	0.5	16	Hiccup
STFA99-S12	50.0	55.0	1.81	2.00	100	200	±3	89	0.5	16	Hiccup

General Specification

Short Circuit Protection	Auto Recovery
Cooling	Free Air Convection
Flammability Rating	UL94V-1
Protection Classes	Class I
Safety	UL 60950-1:2nd Edition, CSA C22.2 No.60950-1-07, IEC 60950-1:2005/ A2:2013, EN 60950-1:2006/ A2:2013

Electrical Characteristics

Characteristic	Condition	Min.	Typ.	Max.	Unit
Safety Approval Input Voltage Range	Safety Approval & Specification in Label	100		240	VAC
Input Operate Voltage Range	Detail to see Fig.1	90		260	VAC
Input Frequency	Sine wave	47		63	Hz
Power Factor Correction	Io=Full load, Vin=240VAC	0.95		1	
Output Power Range	See Rating Chart			100	W
Low Line Input Current	Full Load, Vin=100VAC		1.4		A
High Line Input Current	Full Load, Vin=240VAC		0.58		A
Low Line Input Inrush Current	Full Load, 25°C, Cool start, Vin=100VAC			50	A
High Line Input Inrush Current	Full Load, 25°C, Cool start, Vin=240VAC			120	A
Safety Ground Leakage Current	Vin=240VAC, Fi=60Hz			0.75	mA
Efficiency	Full Load, Vin=230VAC, Detail to see Rating Chart	See Rating Chart			
Line Regulation	Full Load, Vin=100~120VAC			1	%
Load Regulation	Vin=230VAC, 10~90% Load Change at Condition	1		3	%
Over Voltage Protection	Over Voltage Protection	112		132	%
Over Load Protection	Recovers automatically after fault condition is removed	110		150	%
Time of Transient Response	Full Load, Vin=110VAC			4	ms
Hold-Up Time	Full Load, Vin=100VAC	See Rating Chart			
Start-up time	Full Load, Vin=100~240VAC			1	s
Temperature Coefficient	Full load, Vin=100~240VAC			±0.04	%/°C
Dielectric Withstanding Voltage (P-S)	Primary to Secondary			4242	VDC
Dielectric Withstanding Voltage (P-G)	Primary to PE			2121	VDC
EMC Emission	Compliance to EN55022 (CISPR22)			B	Class

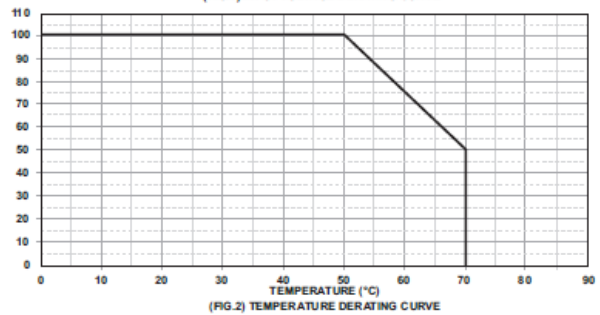
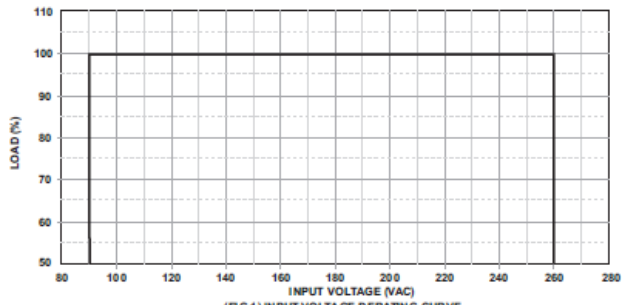
Environmental

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

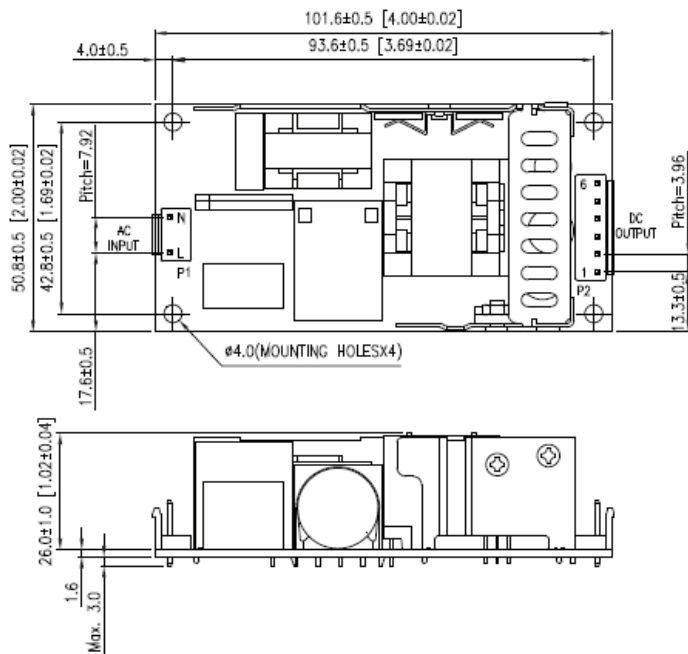
Mechanical and PIN Out

SPECIFICATION NOTE :

- Output can provide up to peak load when the power supply starts up. Continuous staying in more than rated load is not allowed.
- At factory, in 60% rated load condition, each output is checked to be within voltage accuracy.
- Line regulation is defined by changing $\pm 10\%$ of input voltage from nominal line at rated load.
- Load regulation is defined by changing $\pm 40\%$ of measured output load from 60% rated load.
- Ripple & noise is measured by using 20MHz bandwidth limited oscilloscope and terminated each output with a 0.47uF capacitor at rated load and nominal line.
- 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.
- Efficiency is measured at rated load, and nominal line.



MECHANICAL DIMENSIONS: (UNIT: mm)



PACKING :

- Dimensions are shown in mm.
- Weight: 180~250gs approx.
- Input connector mates with JST housing VHR-3N and JST SVH series crimp terminal.
- Output connector mates with JST housing VHR-6N and JST SVH series crimp terminal.

PIN CHART

MODEL	PIN	1	2	3	4	5	6
STFA99-SXX	OUT	OUT	OUT	RTN	RTN	RTN	