

## STFA60 SERIES



## 63W Open Frame Power Supply for I.T. Equipment

- 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 2478 series crimp terminal
- Output connector mates with Molex housing 09-50-3061(or 09-50-3081) and Molex 2478 series crimp terminal
- Size: 3" x 5" x 1.09"
- Input Surge Current, Over Voltage, Over Load, and Output Voltage Protection
- Class I Insulation

2 Year Warranty

Approvals:     

### Single Output

Part Number	Output Voltage	Output Current	Total Regulation	Max Output Power
STFA60-S01	03 ~ 05 VDC	16.6 ~ 10.0 A	5%	50W
STFA60-S02	05 ~ 06 VDC	11.0 ~ 9.16 A	5%	55W
STFA60-S03	06 ~ 08 VDC	10.0 ~ 7.50 A	4%	60W
STFA60-S04	08 ~ 11 VDC	7.87 ~ 5.72 A	3%	63W
STFA60-S05	11 ~ 13 VDC	5.72 ~ 4.84 A	3%	63W
STFA60-S06	13 ~ 16 VDC	4.84 ~ 3.93 A	3%	63W
STFA60-S07	16 ~ 21 VDC	3.93 ~ 3.00 A	3%	63W
STFA60-S08	21 ~ 27 VDC	3.00 ~ 2.33 A	2%	63W
STFA60-S09	27 ~ 33 VDC	2.33 ~ 1.90 A	2%	63W
STFA60-S10	33 ~ 40 VDC	1.90 ~ 1.57 A	2%	63W
STFA60-S11	40 ~ 50 VDC	1.57 ~ 1.26 A	2%	63W

### Multi Output

Part Number	Output 1				Output 2				Output 3				Output 4				Max Output Power
	Vonom	Iomin	Iomax	Regmax	Vonom	Iomin	Iomax	Regmax	Vonom	Iomin	Iomax	Regmax	Vonom	Iomin	Iomax	Regmax	
STFA60-D00	+3.3V	1.4A	7A	6%	+12V	0.6A	3A	5%									59.1W
STFA60-D01	+5V	0.7A	7A	5%	+12V	0.3A	3A	5%									63W
STFA60-D02	+5V	0.7A	7A	5%	+15V	0.3A	3A	5%									63W
STFA60-D03	+5V	0.7A	7A	5%	+24V	0.4A	2A	5%									63W
STFA60-D04	+3.3V	1.4A	7A	6%	+5V	0.5A	5A	5%									48.1W
STFA60-D15	+5V	0.7A	7A	5%					-24V	0.2A	2A	5%					63W
STFA60-D18	+3.3V	0.5A	5A	6%	+48V	0.1A	1.25A	5%									63W
STFA60-D19	+5V	0.1A	5A	5%	+28V	0.2A	2A	5%									63W
STFA60-D20	+5V	0.5A	5A	5%	+35V	0.1A	1.5A	5%									63W
STFA60-D21	+5V	0.5A	5A	5%	+36V	0.1A	1.5A	5%									63W
STFA60-T00	+3.3V	1.2A	6A	6%	+12V	0.6A	3A	5%	-12V	0A	0.8A	5%					63W
STFA60-T00-1	+3.3V	1.2A	6A	6%	+12V	0.6A	3A	5%	+12V	0A	0.8A	5%					63W
STFA60-T01	+5V	0.6A	6A	5%	+12V	0.3A	3A	5%	-5V	0A	0.8A	5%					63W
STFA60-T01-1	+5V	0.6A	6A	5%	+12V	0.3A	3A	5%	+5V	0A	0.8A	5%					63W
STFA60-T02	+5V	0.6A	6A	5%	+12V	0.6A	3A	5%	-12V	0A	0.8A	5%					63W
STFA60-T02-1	+5V	0.6A	6A	5%	+12V	0.6A	3A	5%	+12V	0A	0.8A	5%					63W
STFA60-T03	+5V	0.6A	6A	5%	+15V	0.3A	3A	5%	-15V	0A	0.8A	5%					63W
STFA60-T03-1	+5V	0.6A	6A	5%	+15V	0.3A	3A	5%	+15V	0A	0.8A	5%					63W
STFA60-T04	+5V	1.2A	6A	5%	+24V	0.4A	2A	5%	-24V	0A	0.5A	5%					63W
STFA60-T04-1	+5V	1.2A	6A	5%	+24V	0.4A	2A	5%	+24V	0A	0.5A	5%					63W
STFA60-T05	+5V	1.2A	6A	5%	+24V	0.4A	2A	5%	-12V	0A	0.8A	5%					63W
STFA60-T05-1	+5V	1.2A	6A	5%	+24V	0.4A	2A	5%	+12V	0A	0.8A	5%					63W
STFA60-T06	+3.3V	1.2A	6A	6%	+12V	0.6A	3A	5%	-5V	0A	0.8A	5%					59.8W
STFA60-T06-1	+3.3V	1.2A	6A	6%	+12V	0.6A	3A	5%	+5V	0A	0.8A	5%					59.8W
STFA60-T07	+5V	0.6A	6A	5%	+10V	0.2A	2A	5%	-10V	0A	1A	5%					60W
STFA60-T07-1	+5V	0.6A	6A	5%	+10V	0.2A	2A	5%	+10V	0A	1A	5%					60W
STFA60-T08	+3.3V	0.5A	5A	6%	+5V	0.5A	5A	5%	+12V	0A	1A	5%					53.5W
STFA60-T08-1	+3.3V	0.5A	5A	6%	+5V	0.5A	5A	5%	-12V	0A	1A	5%					53.5W
STFA60-Q00	+3.3V	1.2A	6A	6%	+12V	0.6A	3A	5%	-12V	0A	0.8A	5%	-5V	0A	0.8A	5%	63W
STFA60-Q00-1	+3.3V	1.2A	6A	6%	+12V	0.6A	3A	5%	-12V	0A	0.8A	5%	+5V	0A	0.8A	5%	63W
STFA60-Q00-2	+3.3V	1.2A	6A	6%	+12V	0.6A	3A	5%	+12V	0A	0.8A	5%	-5V	0A	0.8A	5%	63W
STFA60-Q00-3	+3.3V	1.2A	6A	6%	+12V	0.6A	3A	5%	+12V	0A	0.8A	5%	+5V	0A	0.8A	5%	63W
STFA60-Q01	+5V	0.6A	6A	5%	+12V	0.3A	3A	5%	-12V	0A	0.8A	5%	-5V	0A	0.8A	5%	63W
STFA60-Q01-1	+5V	0.6A	6A	5%	+12V	0.3A	3A	5%	-12V	0A	0.8A	5%	+5V	0A	0.8A	5%	63W
STFA60-Q01-2	+5V	0.6A	6A	5%	+12V	0.3A	3A	5%	+12V	0A	0.8A	5%	-5V	0A	0.8A	5%	63W
STFA60-Q01-3	+5V	0.6A	6A	5%	+12V	0.3A	3A	5%	+12V	0A	0.8A	5%	+5V	0A	0.8A	5%	63W
STFA60-Q02	+5V	1.2A	6A	5%	+12V	0.6A	3A	5%	-12V	0A	0.8A	5%	+12V	0A	0.8A	5%	63W
STFA60-Q02-1	+5V	1.2A	6A	5%	+12V	0.6A	3A	5%	+12V	0A	0.8A	5%	+12V	0A	0.8A	5%	63W
STFA60-Q02-2	+5V	1.2A	6A	5%	+12V	0.6A	3A	5%	+12V	0A	0.8A	5%	-12V	0A	0.8A	5%	63W
STFA60-Q02-3	+5V	1.2A	6A	5%	+12V	0.6A	3A	5%	-12V	0A	0.8A	5%	-12V	0A	0.8A	5%	63W
STFA60-Q03	+5V	1.2A	6A	5%	+12V	0.6A	3A	5%	-12V	0A	0.8A	5%	+24V	0A	0.8A	5%	63W
STFA60-Q03-1	+5V	1.2A	6A	5%	+12V	0.6A	3A	5%	+12V	0A	0.8A	5%	+24V	0A	0.8A	5%	63W
STFA60-Q03-2	+5V	1.2A	6A	5%	+12V	0.6A	3A	5%	+12V	0A	0.8A	5%	-24V	0A	0.8A	5%	63W
STFA60-Q03-3	+5V	1.2A	6A	5%	+12V	0.6A	3A	5%	-12V	0A	0.8A	5%	-24V	0A	0.8A	5%	63W
STFA60-Q04	+5V	0.6A	6A	5%	+15V	0.3A	3A	5%	-15V	0A	0.8A	5%	-5V	0A	0.8A	5%	63W

STFA60-Q04-1	+5V	0.6A	6A	5%	+15V	0.3A	3A	5%	-15V	0A	0.8A	5%	+5V	0A	0.8A	5%	63W
STFA60-Q04-2	+5V	0.6A	6A	5%	+15V	0.3A	3A	5%	+15V	0A	0.8A	5%	-5V	0A	0.8A	5%	63W
STFA60-Q04-3	+5V	0.6A	6A	5%	+15V	0.3A	3A	5%	+15V	0A	0.8A	5%	+5V	0A	0.8A	5%	63W
STFA60-Q23	+5V	0.1A	1A	5%	+24V	0.18A	1.8A	5%	-15V	0A	0.1A	5%	+12V	0A	0.8A	5%	59.3W

## Electrical Characteristics

Parameter	Test Conditions	Min.	Typ.	Max.	Unit
Input Voltage	Operating Voltage	90		264	VAC
Input Frequency		47		63	Hz
Output Power Range	Vin=90 to 264VAC	0		63	W
Input Current (Low Line)	Io=Full load, Vin=115VAC			1.6	A
Input Current (High Line)	Io=Full load, Vin=230VAC			1.0	A
Low Line Inrush Current	Io=Full load, 25°C, Cool start, Vin=115VAC		12	15	A
High Line Inrush Current	Io=Full load, 25°C, Cool start, Vin=230VAC		26	30	A
Efficiency	Io=Full Load, Vin=230VAC	70	80	88	%
Line Regulation	Io=Full Load		0.5	1	%
Load Regulation	Vin=230VAC		3	7	%
Over Voltage Protection		112		132	%
Over Current Protection		110		150	%
Transient Response	Io=Full Load to Half Load, Vin=100VAC			4	mS
Hold-Up Time	Io=Full Load, Vin=110VAC	12			mS
Start Up Time	Io=Full Load, Vin=100VAC	0.3	1	2	S
* Ripple & Noise (Peak to Peak)	Full Load, Vin=90VAC		0.5	1	%
Safety Ground Leakage Current	Io=Full Load, Vin=240VAC		0.4	0.75	mA
Temperature Coefficient	All output	-0.04		0.04	%/°C

\* Note: The Ripple & Noise which is under 3.3VDC at 2% max  
The range of OCP is set between 110-150% of total output power .

## Conditions

Parameter	Test Conditions	Min.	Typ.	Max.	Unit
Operating Temperature		0	25	70	°C
Storage Temperature		-40		85	°C
Relative Humidity		5		95	%
Operating Temperature at 25°C, Calculated per MIL-HDBK-217F		0.1M			Hrs
De-rate linearly from 100% load at 25°C to 50% load at 70°C					

## Approvals and Compliance

Parameter	Test Conditions	Min.	Unit
Dielectric Withstanding Voltage for Primary to secondary	Primary to secondary	4242	VDC
Dielectric Withstanding Voltage for Primary to Ground	Primary to ground	2121	VDC
Isolation Resistance	Test Voltage=500VDC	50	MΩ
EMI requirements for CISPR-22	Vin=220VAC	B	CLASS
EMI requirements for FCC PART-15	Vin=110VAC	B	CLASS

## Mechanical

### PIN CHART

MODEL	PIN	1	2	3	4	5	6	7	8
STFA60-SXX		OUT	OUT	OUT	RTN	RTN	RTN		
STFA60-DXX		Vo2	Vo1	Vo1	COM	COM	N/C		
STFA60-D15		N/C	Vo1	Vo1	COM	COM	Vo3		
STFA60-TXX		Vo2	Vo1	Vo1	COM	COM	Vo3		
STFA60-QXX		Vo2	Vo1	Vo1	COM	COM	Vo3	Vo4	Vo4

Note: Vo1: Output#1 Vo2: Output#2 Vo3: Output#3 Vo4:Output#4

### Note:

- Dimensions are shown in inches or mm.
- Weight: 250gs approx.
- Input connector mates with Molex housing 09-50-3051 and Molex 2478 series crimp terminal.
- Output connector mates with Molex housing 09-50-3061 (or 09-50-3081) and Molex 2478 series crimp terminal

