

STFA58 SERIES

60W Open Frame Power Supply for I.T. Equipment

- Wide Operating Voltage 80 to 275 VAC, 47 to 63 Hz
- Crowbar Mode Over Voltage Protection, Short Circuit Protection: Auto Recovery
- Internal EMI filter
- Single Output
- Class I Insolation, Flammability Rating: UL94V-1
- Cooling: Free Air Convection

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) | | | | | | | |
| STFA58-S02 | 5.0 | 6.0 | 6.66 | 8.00 | 40 | 50 | ±5 | 77 | 0.5 | 12 | Hiccup |
| STFA58-S03 | 6.0 | 8.0 | 6.00 | 8.00 | 48 | 60 | ±5 | 77 | 0.5 | 12 | Hiccup |
| STFA58-S04 | 8.0 | 11.0 | 5.00 | 6.87 | 55 | 100 | ±5 | 83 | 0.5 | 12 | Hiccup |
| STFA58-S05 | 11.0 | 13.0 | 4.61 | 5.45 | 60 | 100 | ±5 | 83 | 0.5 | 12 | Hiccup |
| STFA58-S06 | 13.0 | 16.0 | 3.75 | 4.61 | 60 | 100 | ±5 | 83 | 0.5 | 12 | Hiccup |
| STFA58-S07 | 16.0 | 21.0 | 2.85 | 3.75 | 60 | 100 | ±5 | 83 | 0.5 | 12 | Hiccup |
| STFA58-S08 | 21.0 | 27.0 | 2.22 | 2.85 | 60 | 100 | ±3 | 84 | 0.5 | 12 | Hiccup |
| STFA58-S09 | 27.0 | 33.0 | 1.81 | 2.22 | 60 | 100 | ±3 | 84 | 0.5 | 12 | Hiccup |
| STFA58-S10 | 33.0 | 40.0 | 1.50 | 1.81 | 60 | 100 | ±3 | 84 | 0.5 | 12 | Hiccup |
| STFA58-S11 | 40.0 | 48.0 | 1.25 | 1.50 | 60 | 100 | ±2 | 85 | 0.5 | 12 | Hiccup |

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 | | 264 | VAC |
| Input Frequency | Sine wave | 47 | | 63 | Hz |
| Output Power Range | See Rating Chart | | | 60 | W |
| Low Line Input Current | Full Load, Vin=100VAC | | | 1.6 | A |
| High Line Input Current | Full Load, Vin=240VAC | | | 1.6 | A |
| Low Line Input Inrush Current | Full Load, 25°C, Cool start, Vin=100VAC | | | 30 | A |
| High Line Input Inrush Current | Full Load, 25°C, Cool start, Vin=240VAC | | | 60 | 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 | 0.5 | | 1 | % |
| Load Regulation | Vin=230VAC, 10~90% Load Change at Condition | 2 | | 5 | % |
| 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 | | | 2 | s |
| Temperature Coefficient | Full load, Vin=100~240VAC | | | ±0.04 | %/°C |

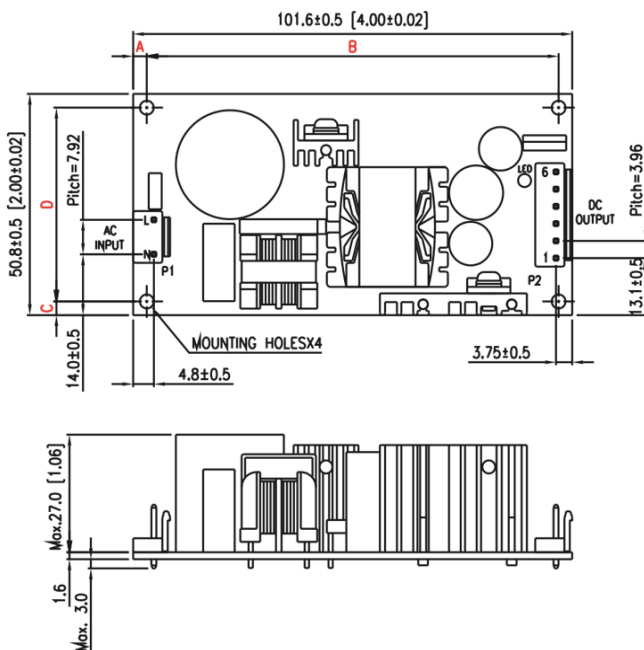
Conditions

| 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 | | | 6 | 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 |

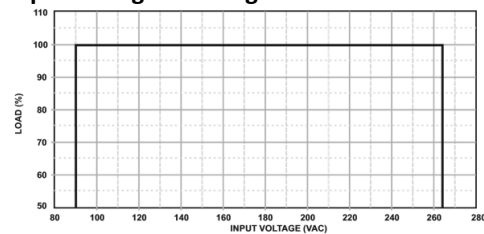
Approvals and Compliance

| 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 | 2718 | VDC |
| EMI requirements for CISPR-22 | Vin=220VAC | B | CLASS |
| Safety UL/c-UL, TUV/T-mark, CE | UL/c-UL(UL 60950-1:2nd Edition), TUV/GS(EN 60950-1:2nd Edition) | | |

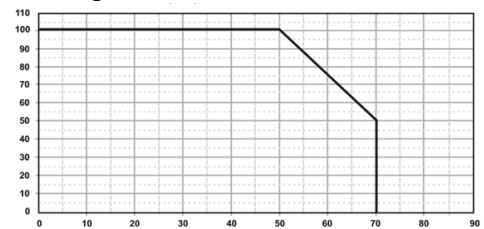
Mechanical Drawing and Technical Charts



Input Voltage Derating Curve



Derating Curve



PIN Chart

| PART NO. | PIN | 1 | 2 | 3 | 4 | 5 | 6 |
|------------|-----|-----|-----|-----|-----|-----|-----|
| STFA58-SXX | | OUT | OUT | OUT | RTN | RTN | RTN |

**P/N: STFA58-XXX-H3 (Standard)
or STFA58-XXX-H4 (Optional)**

| | H3 (Standard) | H4 (Optional) |
|----------------|------------------|------------------|
| MOUNTING HOLES | 3.2±0.5 | 4.0±0.5 |
| A | 3.15±0.5 | 4.3±0.5 |
| B | 95.3±0.5 | 93.0±0.5 |
| C | 3.15±0.5 | 4.0±0.5 |
| D | 44.5±0.5 | 42.8±0.5 |

Note:

- Dimensions are shown in mm & inch
- Weight: approx. 140g
- 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.