

## STFA80 SERIES



## 80W Open Frame Power Supply for I.T. Equipment

- Wide Input Voltage 90 to 260 VAC, 47 to 63Hz
- Dual to Triple Output
- Output voltage available from 3.3 to 24 VDC
- Input Surge Current and Overload protection
- Class I Insulation
- Active Power Factor Correction
- Input connector mates with Molex housing 09-50-3051 and Molex 2478 series crimp terminal
- Output connector mates with Molex housing 09-50-3131 and Molex 2478 series crimp terminal
- Size: 3"x5"x1.18"

2 Year Warranty

Approvals:    

### Multi Output

| Product Number | Output #1 |       |       |        | Output #2 |       |       |        | Output #3 |       |       |        | Maximum Output Power |
|----------------|-----------|-------|-------|--------|-----------|-------|-------|--------|-----------|-------|-------|--------|----------------------|
|                | Vonom     | Iomin | Iomax | Regmax | Vonom     | Iomin | Iomax | Regmax | Vonom     | Iomin | Iomax | Regmax |                      |
| STFA80-D00     | +3.3V     | 1.2A  | 12A   | 7%     | +12V      | 0.5A  | 5A    | 5%     |           |       |       |        | 80W                  |
| STFA80-D01     | +5V       | 1.2A  | 12A   | 5%     | +12V      | 0.5A  | 5A    | 5%     |           |       |       |        | 80W                  |
| STFA80-D02     | +5V       | 1.2A  | 12A   | 5%     | +15V      | 0.5A  | 5A    | 5%     |           |       |       |        | 80W                  |
| STFA80-D03     | +5V       | 1.2A  | 12A   | 5%     | +24V      | 0.3A  | 3A    | 5%     |           |       |       |        | 80W                  |
| STFA80-D04     | +3.3V     | 1.2A  | 12A   | 7%     | +5V       | 0.5A  | 5A    | 5%     |           |       |       |        | 64.6W                |
| STFA80-D15     | +5V       | 1.2A  | 12A   | 5%     |           |       |       |        | -24V      | 0A    | 2A    | 5%     | 80W                  |
| STFA80-T00     | +3.3V     | 1.2A  | 12A   | 7%     | +12V      | 0.5A  | 5A    | 5%     | -12V      | 0A    | 0.8A  | 5%     | 80W                  |
| STFA80-T00-1   | +3.3V     | 1.2A  | 12A   | 7%     | +12V      | 0.5A  | 5A    | 5%     | +12V      | 0A    | 0.8A  | 5%     | 80W                  |
| STFA80-T01     | +5V       | 1.2A  | 12A   | 5%     | +12V      | 0.5A  | 5A    | 5%     | -5V       | 0A    | 0.8A  | 5%     | 80W                  |
| STFA80-T01-1   | +5V       | 1.2A  | 12A   | 5%     | +12V      | 0.5A  | 5A    | 5%     | +5V       | 0A    | 0.8A  | 5%     | 80W                  |
| STFA80-T02     | +5V       | 1.2A  | 12A   | 5%     | +12V      | 0.5A  | 5A    | 5%     | -12V      | 0A    | 0.8A  | 5%     | 80W                  |
| STFA80-T02-1   | +5V       | 1.2A  | 12A   | 5%     | +12V      | 0.5A  | 5A    | 5%     | +12V      | 0A    | 0.8A  | 5%     | 80W                  |
| STFA80-T03     | +5V       | 1.2A  | 12A   | 5%     | +15V      | 0.5A  | 5A    | 5%     | -15V      | 0A    | 0.8A  | 5%     | 80W                  |
| STFA80-T03-1   | +5V       | 1.2A  | 12A   | 5%     | +15V      | 0.5A  | 5A    | 5%     | +15V      | 0A    | 0.8A  | 5%     | 80W                  |
| STFA80-T04     | +5V       | 1.2A  | 12A   | 5%     | +24V      | 0.3A  | 3A    | 5%     | -24V      | 0A    | 0.8A  | 5%     | 80W                  |
| STFA80-T04-1   | +5V       | 1.2A  | 12A   | 5%     | +24V      | 0.3A  | 3A    | 5%     | +24V      | 0A    | 0.8A  | 5%     | 80W                  |
| STFA80-T05     | +5V       | 1.2A  | 12A   | 5%     | +24V      | 0.3A  | 3A    | 5%     | -12V      | 0A    | 0.8A  | 5%     | 80W                  |
| STFA80-T05-1   | +5V       | 1.2A  | 12A   | 5%     | +24V      | 0.3A  | 3A    | 5%     | +12V      | 0A    | 0.8A  | 5%     | 80W                  |
| STFA80-T06     | +3.3V     | 1.2A  | 12A   | 7%     | +12V      | 0.5A  | 5A    | 5%     | -5V       | 0A    | 0.8A  | 5%     | 80W                  |
| STFA80-T06-1   | +3.3V     | 1.2A  | 12A   | 7%     | +12V      | 0.5A  | 5A    | 5%     | +5V       | 0A    | 0.8A  | 5%     | 80W                  |
| STFA80-T07     | +5V       | 1.2A  | 12A   | 5%     | +10V      | 0.5A  | 5A    | 5%     | -10V      | 0A    | 1.0A  | 5%     | 80W                  |
| STFA80-T07-1   | +5V       | 1.2A  | 12A   | 5%     | +10V      | 0.5A  | 5A    | 5%     | +10V      | 0A    | 1.0A  | 5%     | 80W                  |
| STFA80-T08     | +3.3V     | 1.2A  | 12A   | 7%     | +5V       | 0.5A  | 5A    | 5%     | -12V      | 0A    | 1.0A  | 5%     | 76.6W                |
| STFA80-T08-1   | +3.3V     | 1.2A  | 12A   | 7%     | +5V       | 0.5A  | 5A    | 5%     | -12V      | 0A    | 1.0A  | 5%     | 76.6W                |

### Electrical Characteristics

| Parameter                       | Test Conditions                            | Min.  | Typ. | Max. | Unit |
|---------------------------------|--|-------|------|------|------|
| Input Voltage                   | Operating Voltage                          | 90    |      | 260  | VAC  |
| Input Frequency                 |  | 47    |      | 63   | Hz   |
| Power Factor Correction         | Io = Full load, Vin = 90-260VAC            | 0.95  | 0.91 | 1.0  |      |
| Output Power Range              | Vin=90 to 264VAC                           | 0     |      | 80   | W    |
| Input Current (Low Line)        | Io=Full load, Vin=115VAC                   |       |      | 2.0  | 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 |       | 39   | 45   | A    |
| Efficiency                      | Io=Full Load, Vin=230VAC                   |       | 82   | 88   | %    |
| Line Regulation                 | Io=Full Load                               |       | 0.5  | 1    | %    |
| Load Regulation                 | Vin=230VAC                                 |       | 5    | 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                   | 16    |      |      | 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

## Conditions

| Parameter   | Test Conditions | Min. | Typ. | Max. | Unit |
|---|-----------------|------|------|------|------|
| Operating Temperature                                       |                 | 0    | 50   | 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 50°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   | 9   | 10  | 11  | 12  | 13  |
|------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| STFA80-D15-13pin | N/C | N/C | Vo1 | Vo1 | Vo1 | Vo1 | COM | COM | COM | Vo3 | COM | COM | N/C |
| STFA80-DXX-13pin | Vo2 | Vo2 | Vo1 | Vo1 | Vo1 | Vo1 | COM | COM | COM | N/C | COM | COM | N/C |
| STFA80-TXX-13pin | Vo2 | Vo2 | Vo1 | Vo1 | Vo1 | Vo1 | COM | COM | COM | Vo3 | COM | COM | N/C |

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

### Note:

1. Dimensions are shown in inches or mm.
2. Weight: 350gs approx.
3. Input connector mates with Molex housing 09-50-3051 and Molex 2478 series crimp terminal.
4. Output connector mates with Molex housing 09-50-3061 (or 09-50-3081) and Molex 2478 series crimp terminal

