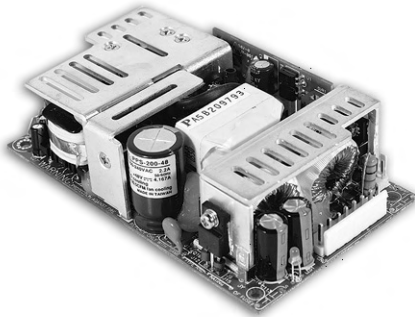


TS200 Series



■ Features :

- Universal AC input / Full range
- Built-in active PFC function
- High efficiency up to 90% (typ)
- Protections: Short circuit / Overload / Over voltage / Over temperature
- PWM control and regulated
- High power density 9.78W/inch³
- 5"x3" compact size
- Built-in remote sense function
- ZVS technology to reduce power dissipation
- Free air convection for 150W and 200W with 20.5 CFM forced air
- 3 years warranty

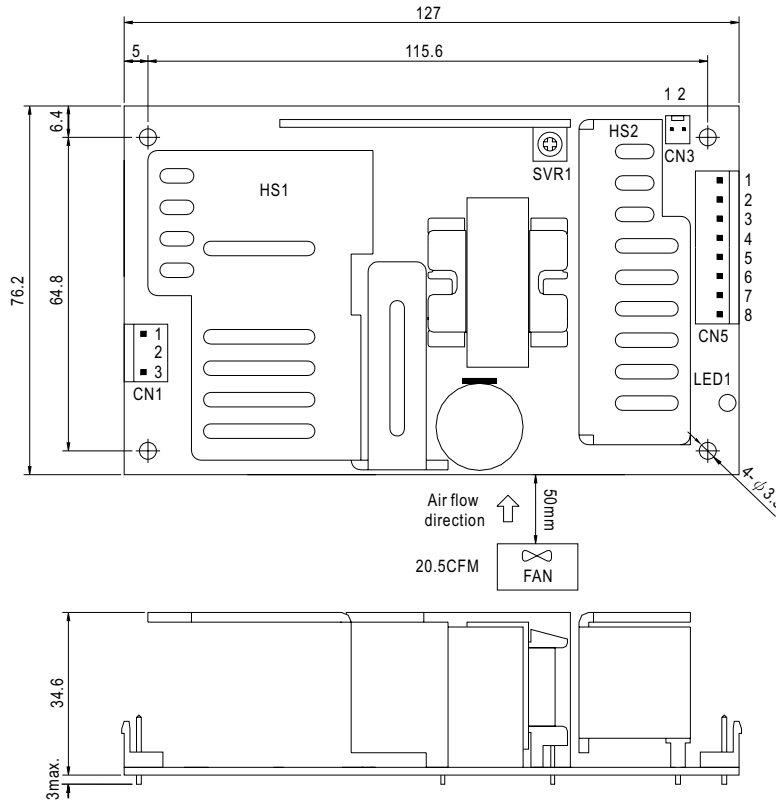


SPECIFICATION

| PART NO. | TS200-05 | TS200-12 | TS200-15 | TS200-24 | TS200-27 | TS200-48 | |
|-----------------------|--|--|--------------|----------------|--------------|----------------|--------------|
| OUTPUT | DC VOLTAGE | 5V | 12V | 15V | 24V | 27V | 48V |
| | RATED CURRENT | 36A | 16.6A | 13.3A | 8.3A | 7.4A | 4.167A |
| | CURRENT RANGE (convection) | 0 ~ 26A | 0 ~ 12.5A | 0 ~ 10A | 0 ~ 6.25A | 0 ~ 5.56A | 0 ~ 3.13A |
| | CURRENT RANGE (20.5CFM FAN) | 0 ~ 36A | 0 ~ 16.6A | 0 ~ 13.3A | 0 ~ 8.3A | 0 ~ 7.4A | 0 ~ 4.167A |
| | RATED POWER (convection) | 130W | 150W | 150W | 150W | 150W | 150W |
| | RATED POWER (20.5CFM FAN) | 180W | 199.2W | 199.5W | 199.2W | 199.8W | 200W |
| | RIPPLE & NOISE (max.) Note.2 | 100mVp-p | 100mVp-p | 100mVp-p | 150mVp-p | 150mVp-p | 250mVp-p |
| | VOLTAGE ADJ. RANGE | 4.5 ~ 5.5V | 10.8 ~ 13.2V | 13.5 ~ 16.5V | 21.6 ~ 26.4V | 24.3 ~ 30V | 43.2 ~ 52.8V |
| | VOLTAGE TOLERANCE Note.3 | ±4.0% | ±3.0% | ±3.0% | ±2.0% | ±2.0% | ±2.0% |
| | LINE REGULATION | ±0.5% | ±0.5% | ±0.5% | ±0.5% | ±0.5% | ±0.5% |
| | LOAD REGULATION | ±1.0% | ±1.0% | ±1.0% | ±1.0% | ±1.0% | ±1.0% |
| | SETUP, RISE TIME | 1200ms, 60ms/230VAC 2500ms, 60ms/115VAC at full load | | | | | |
| HOLD UP TIME (Typ.) | 12ms/230VAC/115VAC at full load | | | | | | |
| INPUT | VOLTAGE RANGE | 90 ~ 264VAC 127 ~ 370VDC | | | | | |
| | FREQUENCY RANGE | 47 ~ 63Hz | | | | | |
| | POWER FACTOR (Typ.) | PF>0.93/230VAC PF>0.98/115VAC at full load | | | | | |
| | EFFICIENCY (Typ.) | 86% | 89% | 89% | 89% | 89% | 90% |
| | AC CURRENT (Typ.) | 2.2A/115VAC 1.2A/230VAC | | | | | |
| | INRUSH CURRENT (Typ.) | COLD START 70A/230VAC | | | | | |
| LEAKAGE CURRENT | <2mA / 240VAC | | | | | | |
| PROTECTION | OVERLOAD | 105 ~ 135% rated output power Protection type : Hiccup mode, recovers automatically after fault condition is removed | | | | | |
| | OVER VOLTAGE | 5.6 ~ 7.25V | 13.8 ~ 16.2V | 17.25 ~ 20.25V | 27.6 ~ 32.4V | 31.05 ~ 36.45V | 57.6 ~ 67.2V |
| | OVER TEMPERATURE | 110°C (TSW1) detect on heatsink of power transistor Protection type : Shut down o/p voltage, recovers automatically after temperature goes down | | | | | |
| ENVIRONMENT | WORKING TEMP. | -20 ~ +70°C (Refer to output load derating curve) | | | | | |
| | WORKING HUMIDITY | 20 ~ 90% RH non-condensing | | | | | |
| | STORAGE TEMP., HUMIDITY | -40 ~ +85°C, 10 ~ 95% RH | | | | | |
| | TEMP. COEFFICIENT | ±0.05%/°C (0 ~ 50°C) | | | | | |
| | VIBRATION | 10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes | | | | | |
| SAFETY & EMC (Note 4) | SAFETY STANDARDS | UL60950-1, TUV EN60950-1 approved | | | | | |
| | WITHSTAND VOLTAGE | I/P-O/P:3KVAC I/P-FG:1.5KVAC O/P-FG:0.5KVAC | | | | | |
| | ISOLATION RESISTANCE | I/P-O/P, I/P-FG, O/P-FG:100M Ohms/500VDC | | | | | |
| | EMI CONDUCTION & RADIATION | Compliance to EN55022 (CISPR22) Class B | | | | | |
| | HARMONIC CURRENT | Compliance to EN61000-3-2,-3 | | | | | |
| OTHERS | EMS IMMUNITY | Compliance to EN61000-4-2,3,4,5,6,8,11; ENV50204, EN55024, light industry level, criteria A | | | | | |
| | MTBF | 108.4Khrs min. MIL-HDBK-217F (25°C) | | | | | |
| | DIMENSION | 127*76.2*34.6mm (L*W*H) | | | | | |
| | PACKING | 0.37Kg; 36pcs/14.3Kg/0.79CUFT | | | | | |
| NOTE | <ol style="list-style-type: none"> 1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature. 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor. 3. Tolerance : includes set up tolerance, line regulation and load regulation. 4. The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives. 5. Heat Sink HS1,HS2 can not be shorted. 6. Length of set up time is measured at cold first start. Turning ON/OFF the power supply very quickly may lead to increase of the set up time. | | | | | | |

Unit:mm

Mechanical Specification



AC Input Connector (CN1) : JST B3P-VH or equivalent

| Pin No. | Assignment | Mating Housing | Terminal |
|---------|------------|-----------------------|--------------------------------|
| 1 | AC/L | JST VHR or equivalent | JST SVH-21T-P1.1 or equivalent |
| 2 | No Pin | | |
| 3 | AC/N | | |

DC Output Connector (CN5) : JST B8P-VH or equivalent

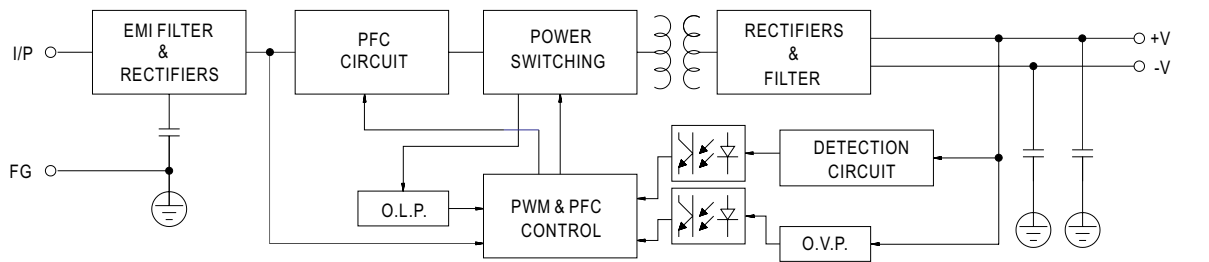
| Pin No. | Assignment | Mating Housing | Terminal |
|---------|------------|-----------------------|--------------------------------|
| 1~4 | +V | JST VHR or equivalent | JST SVH-21T-P1.1 or equivalent |
| 5~8 | -V | | |

Remote Sense(CN3) : Molex 5045-02 or equivalent

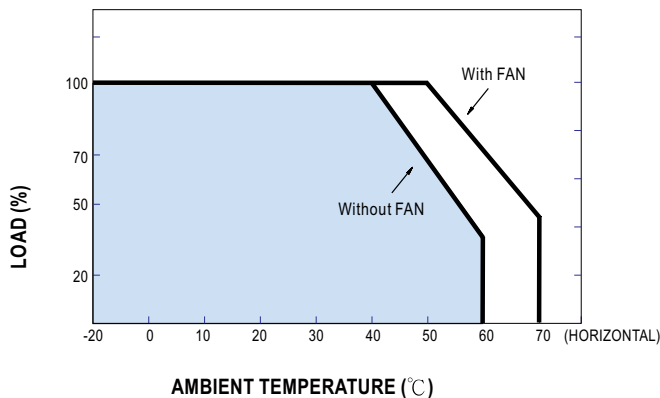
| Pin No. | Assignment | Mating Housing | Terminal |
|---------|------------|--------------------------|--------------------------|
| 1 | RS- | Molex 5051 or equivalent | Molex 4809 or equivalent |
| 2 | RS+ | | |

⚠ HS1,HS2 can not be shorted

Block Diagram



Derating Curve



Output Derating VS Input Voltage

