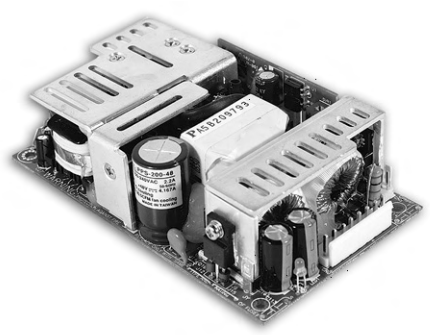
TRUMPower

200W Compact AC/DC Power Supplies

TS200 Series



■ Features :

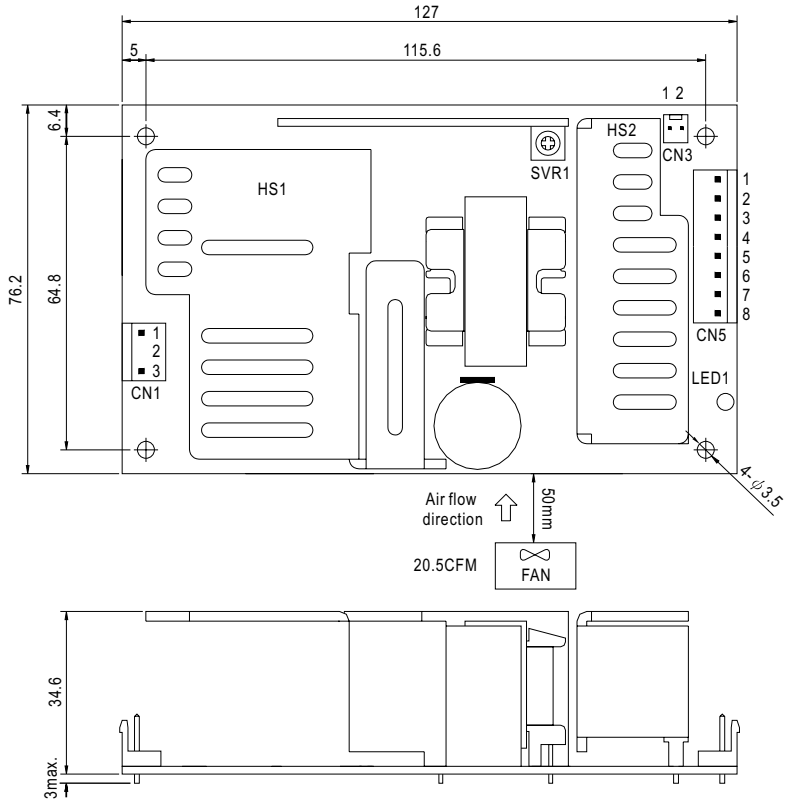
- Universal AC input / Full range
- Built-in active PFC function
- High efficiency up to 90% (typ)
- Protections: Short circuit / Overload / Over voltage / Over temperature
- PWM control and regulated
- High power density 9.78W/inch^3
- 5"x3" compact size
- Built-in remote sense function
- ZVS technology 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
		Protection type : Hiccup mode, recovers automatically after fault condition is removed					
	OVER TEMPERATURE	110℃(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℃ (Refer to output load derating curve)					
	WORKING HUMIDITY	20 ~ 90% RH non-condensing					
	STORAGE TEMP., HUMIDITY	-40 ~ +85℃, 10 ~ 95% RH					
	TEMP. COEFFICIENT	±0.05%/℃ (0 ~ 50℃)					
	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					
	EMS IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11; ENV50204, EN55024, light industry level, criteria A					
OTHERS	MTBF	108.4Khrs min. MIL-HDBK-217F (25℃)					
	DIMENSION	127*76.2*34.6mm (L*W*H)					
	PACKING	0.37Kg; 36pcs/14.3Kg/0.79CUFT					
NOTE	1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25℃ 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.						

■ Mechanical Specification

Unit:mm



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		

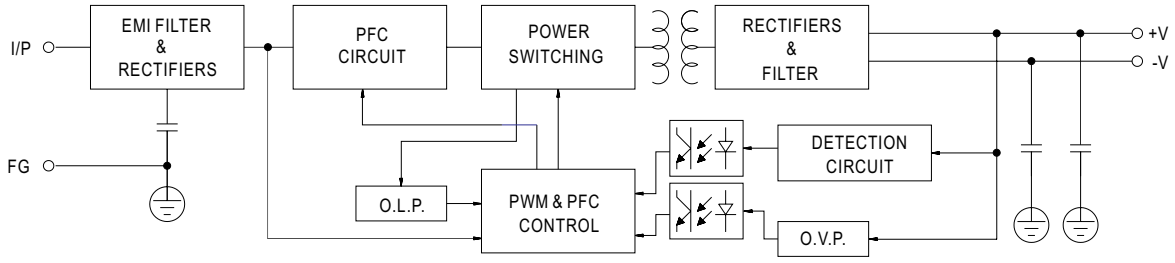
Remote Sense(CN3) : Molex 5045-02 or equivalent

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

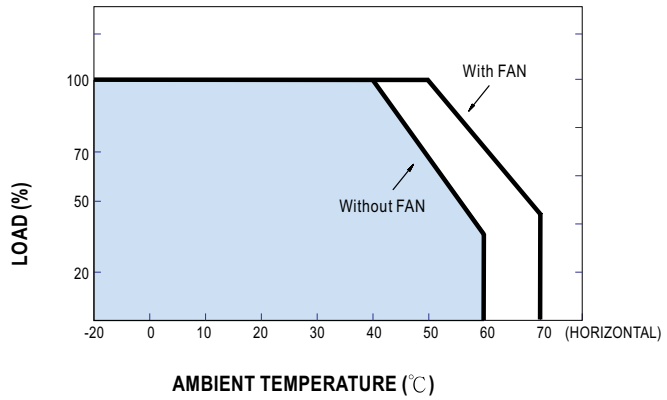
⚠ HS1,HS2 can not be shorted

■ Block Diagram

fosc : 100KHz



■ Derating Curve



■ Output Derating VS Input Voltage

