Wall Industries, Inc.

PSSP200 Series
Single Output
200 Watt with PFC Function
AC/DC Switching Power Supply

FEATURES

- **3 Year Warranty**
- **Built-In Fan Speed Control**
- **Fixed Switching Frequency**
- **LED Indicator for Power On**
- **100% Full Load Burn-In Tested**
- **Universal AC Input / Full Range**
- **Remote ON/OFF Control (Optional)**
- **Built-In Cooling Fan Speed Control**
- **Built-In Active PFC Function, PF > 0.93**
- **Built-In Constant Current Limiting Circuit**
- **Short Circuit, Overload, Over Voltage, and Over Temperature Protected**

SPECIFICATIONS: *PSSP200 Series*	
All specifications are based on 25°C, Nominal Input Voltage, and Maximum Output Current unless otherwise noted. We reserve the right to change specifications based on technological advances.	
INPUT SPECIFICATIONS	
Input Voltage Range	85 ~ 264VAC (120 ~ 370VDC)
Input Frequency	47 to 63Hz
AC Current (typical)	3.5A @ 115VAC 1.7A @ 230VAC
Inrush Current (typical)	Cold Start 40A @ 230VAC
Leakage Current	< 2mA @ 240VAC
Power Factor (typical)	PF > 0.93 @ 230VAC PF > 0.98 @ 115VAC and full load
Remote ON/OFF Control (Option)	CN1: 4~10VDC Power On, < 0 ~ 0.8VDC Power Off
OUTPUT SPECIFICATIONS	
Output Voltage	See Table
Output Power	See Table
Voltage Tolerance (See Note 3)	3.3V - 15V outputs: 2.0%; 24V - 48V outputs: 1.0%
Voltage Adjustment Range	See Table
Line Regulation	0.5%
Load Regulation	3.3V - 7.5V outputs: 1.0%; 12V - 48V outputs: 0.5%
Output Current	See Table
Ripple & Noise (max) (See Note 2)	3.3V - 15V outputs: 100mVp-p; 24V & 27V outputs: 150mVp-p; 48V output: 250mVp-p
Setup, Rise Time	600ms, 30ms @ full load
Hold Up Time (typical)	20ms @ full load
Temperature Coefficient	±0.05%/°C (0 ~ 50°C)
PROTECTION	
Overload Protection	105 ~ 150% rated output power Protection Type: Constant current limiting; recovers automatically after fault condition is removed
Over Voltage	See Table Protection Type: Shutdown output voltage, re-power on to recover.
Over Temperature	95°C ±5°C (TSW1: detect on heatsink of power transistor) Protection Type: Shutdown output voltage; recovers automatically after temperature goes down.
GENERAL SPECIFICATIONS	
Switching Frequency	PFC: 67KHz PWM: 134KHz
Efficiency (typical)	See Table
Withstand Voltage	3000VAC (Input to Output), 1500VAC (Input to FG), 500VAC (Output to FG)
Isolation Resistance	100MΩ/500DC (Input to Output, Input to FG, and Output to FG)
ENVIRONMENTAL SPECIFICATIONS	
Working Temperature	-10°C to +60°C (refer to output load derating curve)
Storage Temperature	-20°C to +85°C
Working Humidity	20 ~ 90% RH non-condensing
Storage Humidity	10 ~ 95% RH
Vibration	10 ~ 500Hz, 2G 10min./1 cycle, 60min each along X, Y, Z axes.
Cooling	Built-in cooling fan
MTBF	183,800 hours min. @ 25°C (MIL-HDBK-217F)
PHYSICAL SPECIFICATIONS	
Weight	800 grams
Dimensions	199(L) x 99(W) x 50(H) mm
Warranty	3 years
SAFETY & EMC	
Safety Standards	UL60950-1, TUV EN60950-1 approved
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

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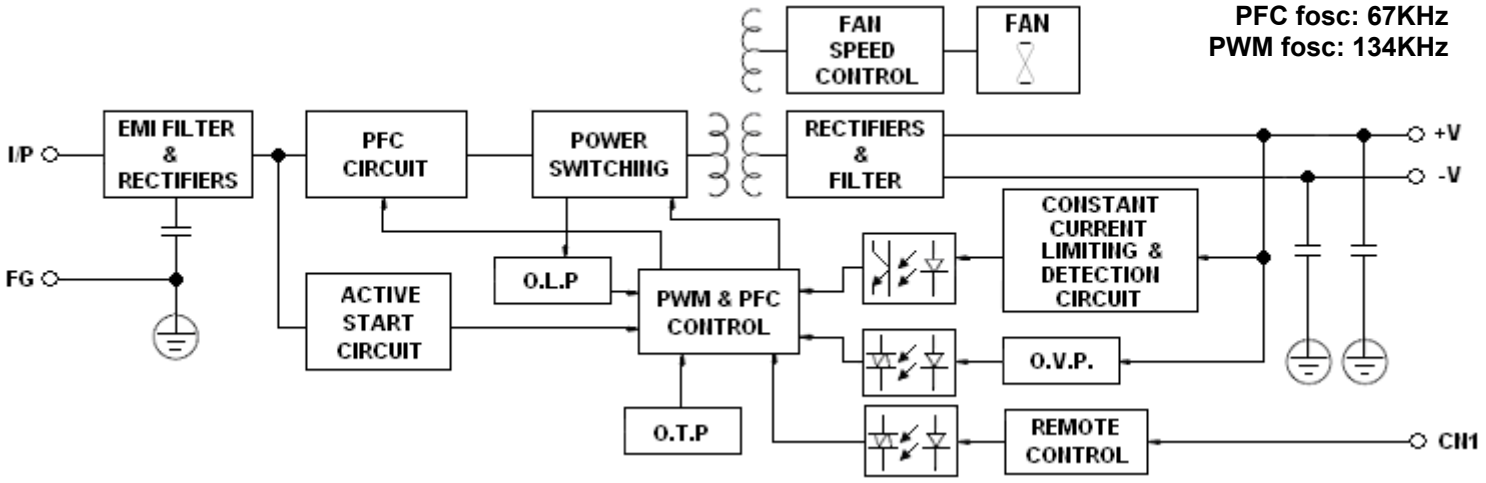
OUTPUT VOLTAGE / CURRENT RATING CHART

Model Number	Input Voltage	Output Voltage	Voltage Adjust. Range	Over Voltage Protection	Output Current	Output Power	Efficiency
PSSP200-3.3	85 ~ 264 VAC (120 ~ 370 VDC)	3.3 VDC	3.14 ~ 3.63V	3.63 ~ 4.46V	40A	132W	65%
PSSP200-5		5 VDC	4.75 ~ 5.5V	5.5 ~ 6.75V	40A	200W	71%
PSSP200-7.5		7.5 VDC	7.13 ~ 8.25V	8.25 ~ 10.13V	26.7A	200.2W	76%
PSSP200-12		12 VDC	11.4 ~ 13.2V	13.2 ~ 16.2V	16.7A	200.4W	79%
PSSP200-13.5		13.5 VDC	12.8 ~ 14.9V	14.85 ~ 18.2V	14.9A	201.1W	80%
PSSP200-15		15 VDC	14.3 ~ 16.5V	16.5 ~ 20.25V	13.4A	201W	81%
PSSP200-24		24 VDC	22.8 ~ 26.4V	26.4 ~ 32.4V	8.4A	201.6W	83%
PSSP200-27		27VDC	25.7 ~ 29.7V	29.7 ~ 36.45V	7.5A	202.5W	83%
PSSP200-48		48 VDC	45.6 ~ 52.8V	52.8 ~ 64.8V	4.2A	201.6W	84%

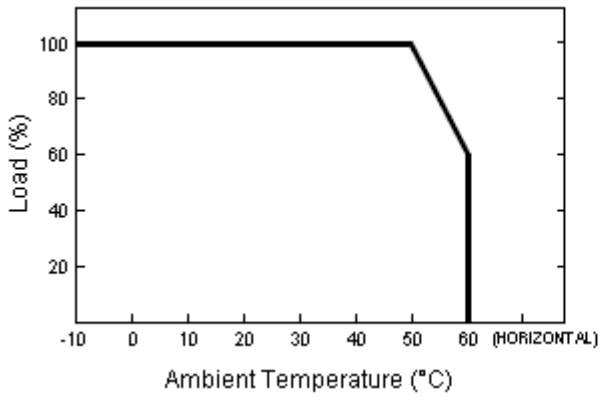
NOTES

1. All parameters NOT specially mentioned are measured at 230VAC input, rated load, and 25°C ambient temperature.
2. Ripple & noise are measured at 20MHz bandwidth by using a 12" twisted pair-wire terminated with a 0.1uF & 47uF parallel capacitor.
3. Tolerances include set up tolerance, line regulation, and load regulation.
4. The power supply is considered a component, which will be installed into final equipment. The final equipment must be re-confirmed that it still meets EMC directives.

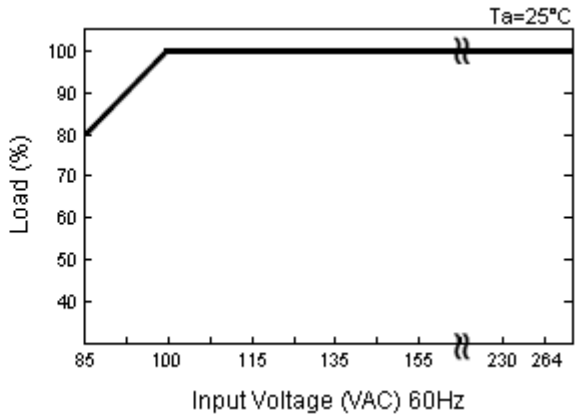
BLOCK DIAGRAM



DERATING CURVE



OUTPUT DERATING VS INPUT VOLTAGE



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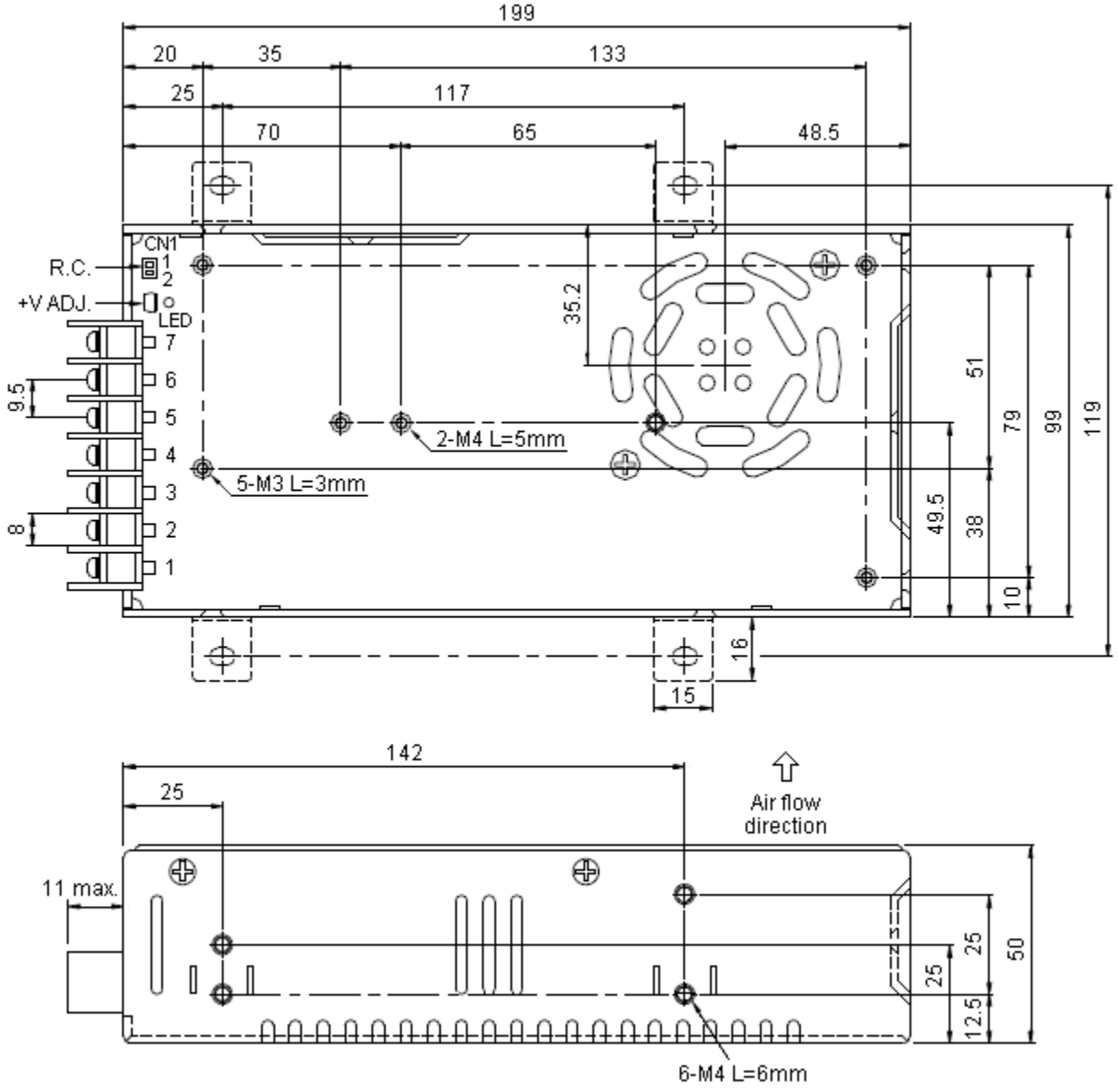
MECHANICAL DRAWING

Unit: mm



Terminal Pin No. Assignment

Pin No.	Assignment
1	AC/L
2	AC/N
3	FG
4,5	DC OUTPUT (-V)
6,7	DC OUTPUT (+V)

Remote ON/OFF (CN1): JST S2B-XH or equivalent (optional)

Pin No.	Assignment	Mating Housing	Terminal
1	RC+	JST XHP or equivalent	JST SXH-001T-P0.6 or equivalent
2	RC-		