Wall Industries, Inc.

PSS240 Series
240 Watt
Single Output
AC/DC Power Supply

FEATURES



- **2 Year Warranty**
- **Fixed Switching Frequency**
- **Built-In Passive PFC Choke**
- **LED Indicator for Power On**
- **Compact Size, Light Weight**
- **100% Full Load Burn-In Tested**
- **Auto Switched 88 ~ 264VAC Input**
- **Built-In Cooling Fan ON/OFF Control**
- **Forced Air Cooling by Built-In DC Fan**
- **High Efficiency, Low Working Temperature**
- **Soft Start Circuit, Limiting AC Surge Current**
- **Short Circuit, Overload, Over Voltage, and Over Temperature Protected**

SPECIFICATIONS: *PSS240 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	88 ~ 132VAC / 176 ~ 264VAC auto switch (248 ~ 370VDC)
Input Frequency	47 to 63Hz
AC Current (typical)	5A @ 115VAC 2.5A @ 230VAC
Inrush Current (typical)	15A @ 115VAC 30A @ 230VAC
Leakage Current	< 2mA @ 240VAC
OUTPUT SPECIFICATIONS	
Output Voltage	See Table
Output Power	See Table
Voltage Tolerance (See Note 3)	5V & 7.5V outputs: ±2.0%; 12V - 48V outputs: ±1.0%
Voltage Adjustment Range	See Table
Line Regulation	48V output: ±1.0%; 5V - 30V outputs: ±0.5%
Load Regulation	5V, 7.5V, and 48V outputs: ±1.0%; 12V - 30V outputs: ±0.5%
Output Current	See Table
Ripple & Noise (max) (See Note 2)	See Table
Setup, Rise Time	1000ms, 20ms @ full load
Hold Up Time (typical)	36ms @ full load
Temperature Coefficient	±0.03%/°C (0 ~ 50°C)
PROTECTION	
Overload Protection	105 ~ 135% rated output power Protection Type: Hiccup mode, recovers automatically after fault condition is removed.
Over Voltage Protection	See Table Protection Type: Hiccup mode, recovers automatically after fault condition is removed.
Fan Control, O.T.P	RT1≥ 40°C Fan On, ≤ 35°C Fan Off, ≥ 70°C output shutdown
GENERAL SPECIFICATIONS	
Switching Frequency	75KHz
Efficiency	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
Cooling	Forced air cooling by built-in DC fan
Vibration	10 ~ 500Hz, 2G 10min./1 cycle, 60min each along X, Y, Z axes.
MTBF	179,300 hours min. @ 25°C (MIL-HDBK-217F)
PHYSICAL SPECIFICATIONS	
Weight	1200 grams
Dimensions	190(L) x 93(W) x 65(H) mm
Warranty	2 years
SAFETY & EMC	
Safety Standards	UL60950-1, TUV EN60950-1 Approved (7.5V Design refer to TUV EN60950-1)
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

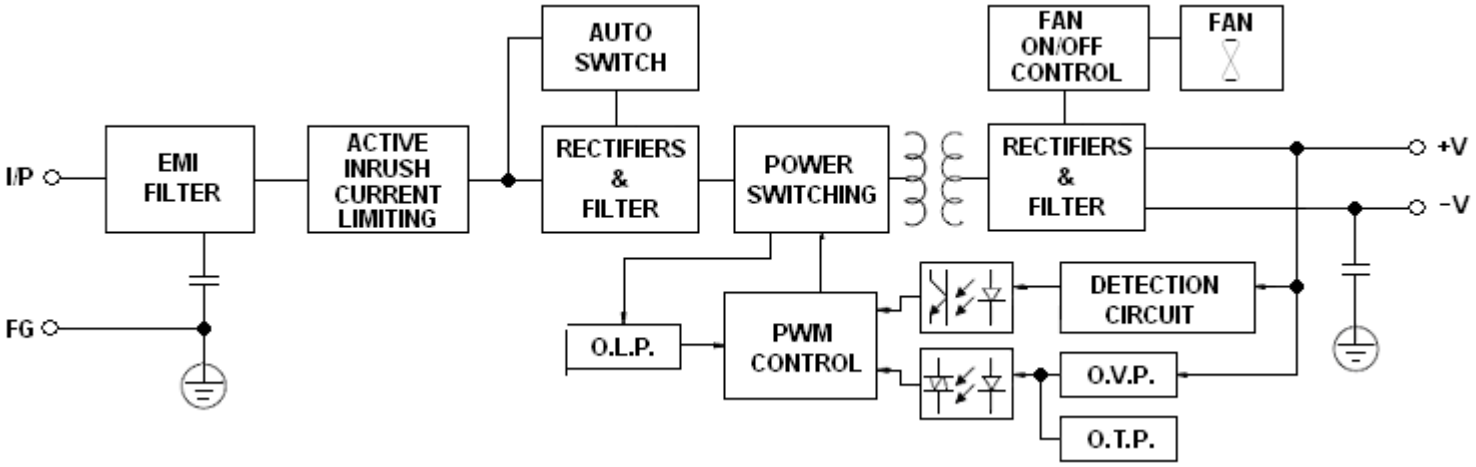
Model Number	Input Voltage	Output Voltage	Voltage Adjust. Range	Over Voltage Protection	Output Current	Ripple & Noise	Output Power	Efficiency
PSS-240-5	88 ~ 132 VAC or 176 ~ 264 VAC	5 VDC	4.5 ~ 5.8V	6 ~ 7V	40A	150mVp-p	200W	78%
PSS-240-7.5		7.5 VDC	6 ~ 9V	9.4 ~ 10.9V	30A	200mVp-p	225W	80%
PSS-240-12		12 VDC	10 ~ 14V	14.4 ~ 16.8V	18A	150mVp-p	216W	82%
PSS-240-15		15 VDC	12 ~ 18V	18.5 ~ 21.5V	15A	150mVp-p	225W	83%
PSS-240-24		24 VDC	20 ~ 28V	31.2 ~ 36V	10A	180mVp-p	240W	84%
PSS-240-30		30 VDC	27 ~ 33V	34.5 ~ 40.5V	8A	180mVp-p	240W	85%
PSS-240-48		48 VDC	41 ~ 56V	57.6 ~ 67.2V	5A	240mVp-p	240W	87%

NOTES

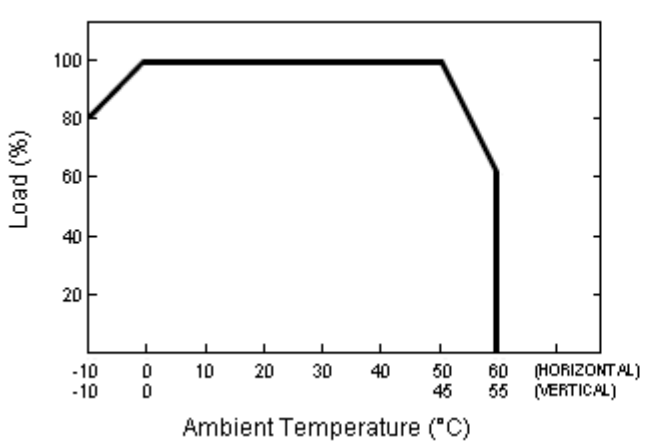
1. All parameters NOT specially mentioned are measured at 230VAC input, rated load, and 25°C ambient temperature.
2. Ripple & noise are measured at 20MHz bandwidth by using a 12" twisted pair-wire terminated with a 0.1uF& 47uF parallel capacitor.
3. Tolerances include set up tolerance, line regulation, and load regulation.
4. This 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

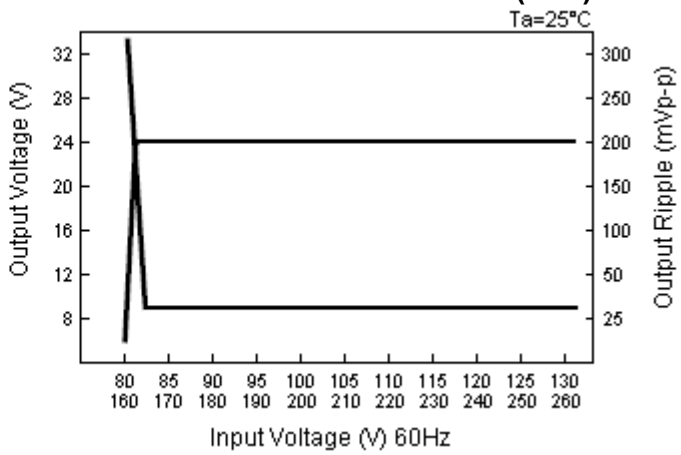
fosc: 75KHz



DERATING CURVE



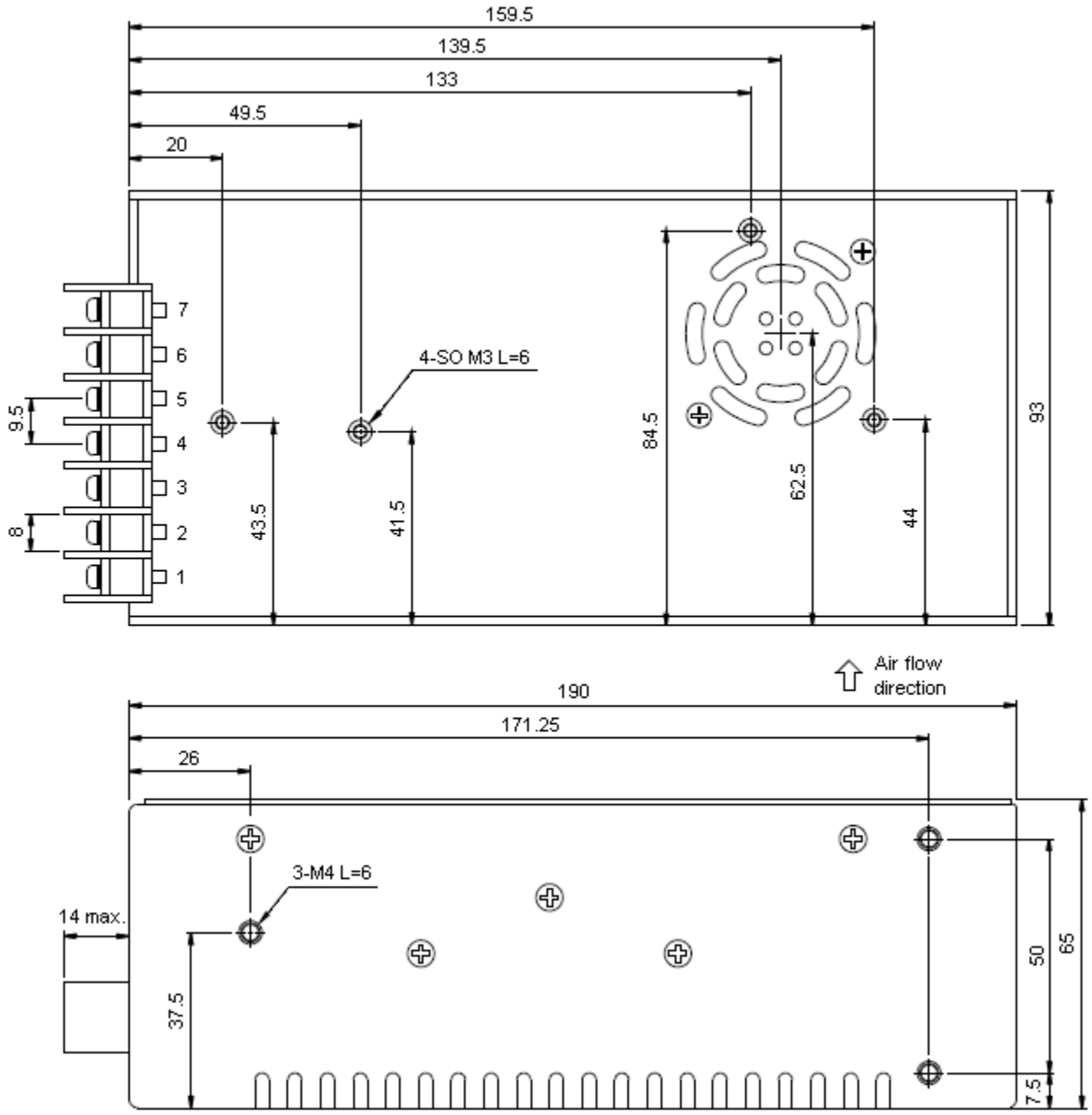
STATIC CHARACTERISTICS (24V)



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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)