Wall Industries, Inc.

PSPS65 Series
Single Output
Up to 65 Watts
AC/DC Power Supply

FEATURES

- **2 Year Warranty**
- **100% Full Load Burn-In Test**
- **Universal AC Input/ Full Range**
- **Low Leakage Current < 0.75mA**
- **Cooling by Free Air Convection**
- **Fixed Switching Frequency at 65KHz**
- **Short Circuit, Overload, and Over Voltage Protected**



SPECIFICATIONS: ***PSPS65 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	90 – 264VAC (127 – 370VDC)
Input Frequency	47 ~ 440Hz
AC Current (typical)	1.2A @ 115VAC 0.72A @ 230VAC
Inrush Current (typical)	20A @ 115VAC 40A @ 230VAC cold start
Leakage Current	< 0.75mA @ 240VAC
OUTPUT SPECIFICATIONS	
Output Voltage	See Table
Output Voltage Tolerance (See Note 3)	3.3, 5, 7.5V outputs: ±3.0%; 12, 13.5, 15, 24, 27, 48V outputs: ±2.0%
Voltage Adjustment Range	See Table
Output Power (max)	Rated output power for convection; 72W (+3.3V: 50W; +5V: 69W) with 18CFM min. forced air.
Line Regulation	±1.0%
Load Regulation	3.3, 5, 7.5V outputs: ±3.0%; 12, 13.5, 15, 24, 27, 48V outputs: ±2.0%
Output Current	See Table
Ripple & Noise (max) (See Note 2)	See Table
Setup, Rise Time	800ms, 20ms at full load
Hold Up Time	60ms at full load
Temperature Coefficient	±0.04%/°C (0~50°C)
PROTECTION	
Over Voltage Protection	See Table Protection Type: Hiccup mode, recovers automatically after fault condition is removed.
Overload Protection	73 ~ 105W (3.3V: 51 ~ 75W) (5V: 70 ~ 105W) rated output power Protection Type: Hiccup mode, recovers automatically after fault condition is removed.
GENERAL SPECIFICATIONS	
Switching Frequency (fixed)	65KHz
Efficiency (typical)	See Table
Withstand Voltage	3KVAC (input to output), 1.5KVAC (input to FG), 0.5KVAC (output to FG).
Isolation Resistance	100MΩ / 500VDC (input to output, input to FG, 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 (non-condensing)	20% ~ 90% RH non-condensing
Storage Humidity (non-condensing)	10% ~ 95% RH
Vibration	10~500Hz, 2G 10min./1cycle, Period for 60 minutes each along X, Y, and Z axes.
Cooling	Free air convection
MTBF	300,700 hours min. MIL-HDBK-217 (25°C)
PHYSICAL SPECIFICATIONS	
Weight	18 oz.
Dimensions	127(L) x 76(W) x 42(H) mm
Warranty	2 years
SAFETY & EMC (See Note 4)	
Safety Standards	UL60950-1, TUV EN60950-1 Approved
EMI Conduction and 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; EN50204, EN55024, Light industry level, criteria A.

Wall Industries, Inc. 5 Watson Brook Road Exeter, NH 03833
603-778-2300 www.wallindustries.com Fax 603-778-9797

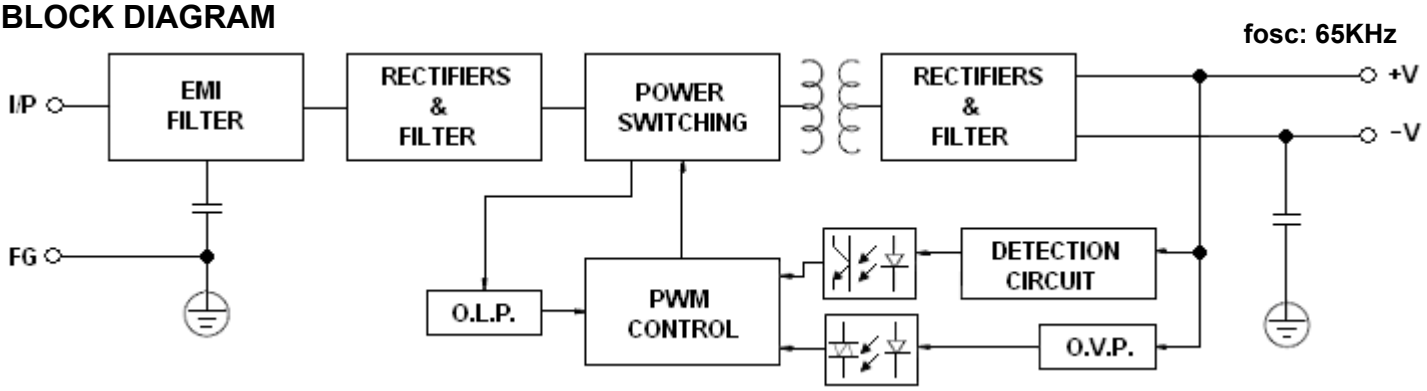
OUTPUT VOLTAGE / CURRENT RATING CHART

Model	Input Voltage	Output Voltage	Voltage Adj. Range	Rated Current	Current Range	Ripple & Noise	Output Power	Over Voltage Protection	Efficiency
PSPS-65-3.3	90 ~ 264VAC (127 ~ 370VDC)	3.3 VDC	3.14 ~ 3.63V	12A	0 ~ 15.2A	80mVp-p	39.6W	3.8 ~ 4.46V	69%
PSPS-65-5		5 VDC	4.75 ~ 5.5V	12A	0 ~ 13.8A	100mVp-p	60W	5.75 ~ 6.75V	76%
PSPS-65-7.5		7.5 VDC	7.13 ~ 8.25V	8A	0 ~ 9.6A	100mVp-p	60W	8.63 ~ 10.1V	79%
PSPS-65-12		12 VDC	11.4 ~ 13.2V	5.2A	0 ~ 6A	100mVp-p	62.4W	13.8 ~ 16.2V	79%
PSPS-65-13.5		13.5 VDC	12.8 ~ 14.9V	4.7A	0 ~ 5.4A	100mVp-p	63.5W	15.5 ~ 18.2V	79%
PSPS-65-15		15 VDC	14.25 ~ 16.5V	4.2A	0 ~ 4.8A	100mVp-p	63W	17.25 ~ 20.25V	79%
PSPS-65-24		24 VDC	22.8 ~ 26.4V	2.7A	0 ~ 3A	100mVp-p	64.8W	27.6 ~ 32.4V	80%
PSPS-65-27		27 VDC	25.65 ~ 29.7V	2.4A	0 ~ 2.7A	100mVp-p	64.8W	31 ~ 36.45V	80%
PSPS-65-48		48 VDC	45.6 ~ 52.8V	1.35A	0 ~ 1.5A	100mVp-p	64.8W	55.2 ~ 64.8V	80%

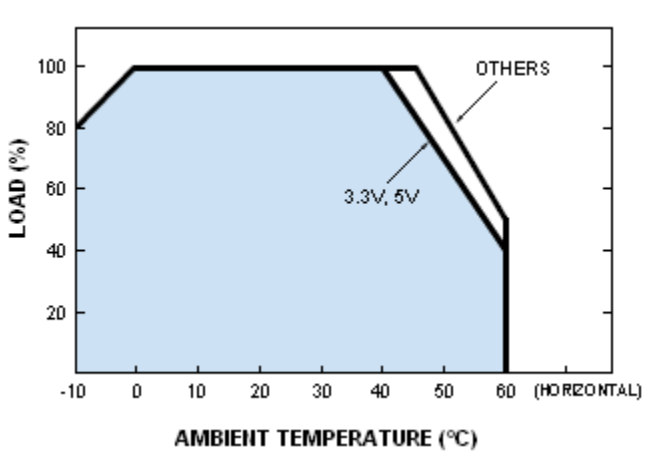
NOTES

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 using a 12" twisted pair-wire terminated with 0.1uF & 47uF capacitors in parallel.
3. Tolerance: includes 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.
5. Mounting holes M1 and M2 should be grounded for EMI purposes.

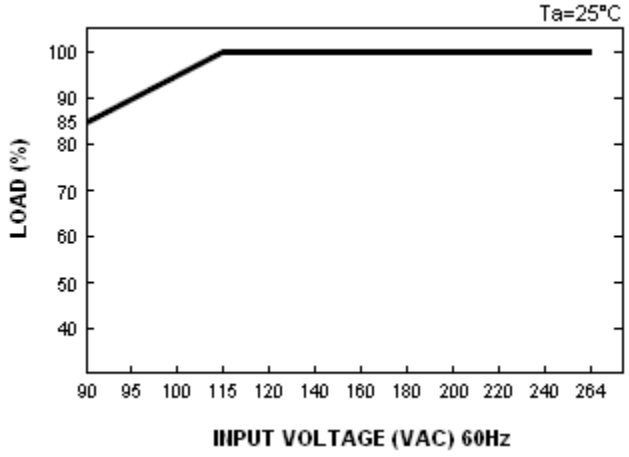
BLOCK DIAGRAM



DERATING CURVE

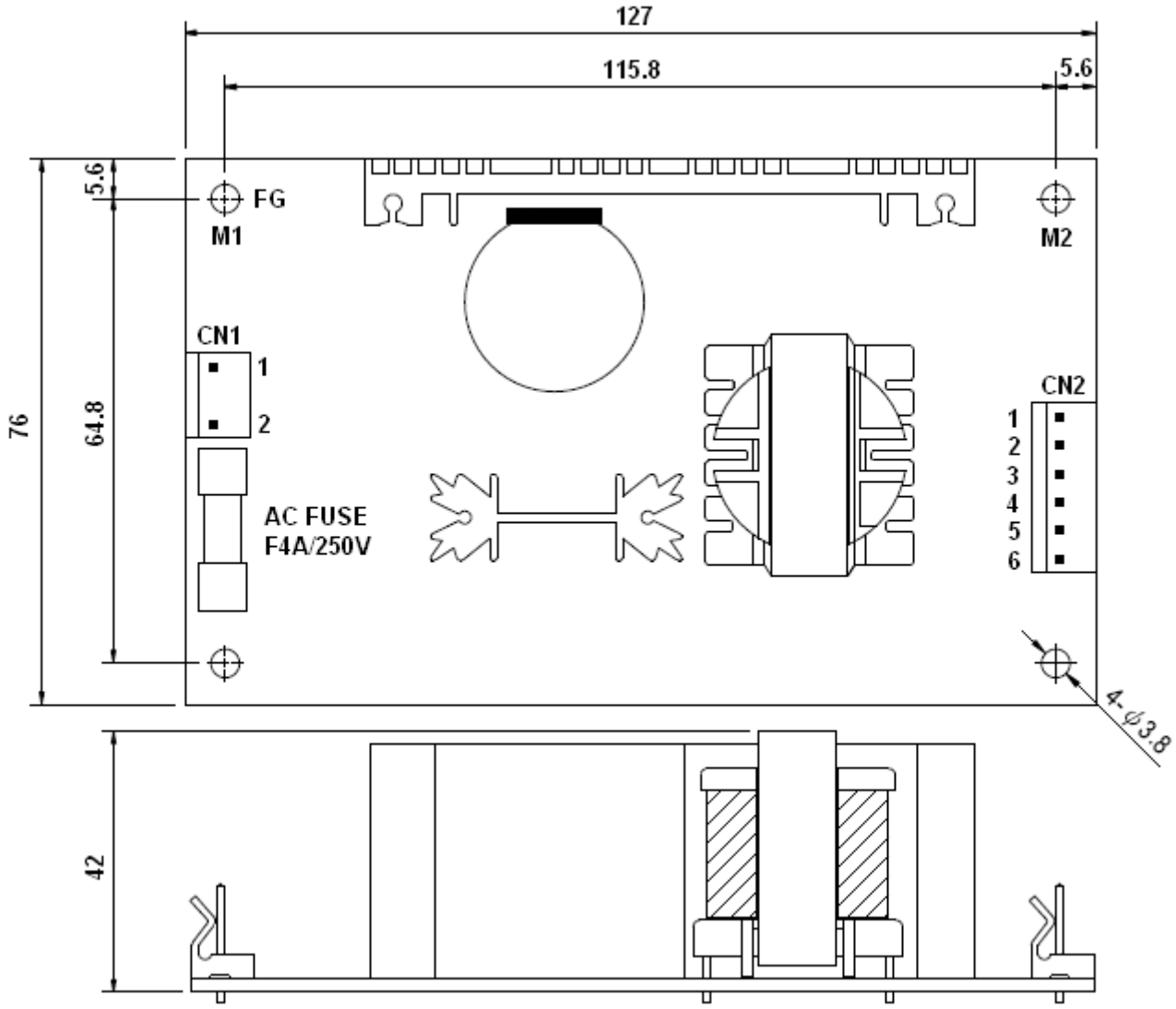


OUTPUT DERATING VS INPUT VOLTAGE



MECHANICAL DRAWING

Unit: mm



AC INPUT CONNECTOR (CN1)	
Pin. No	**Assignment**
1	AC/N
2	AC/L

DC OUTPUT CONNECTOR (CN2)	
Pin. No	**Assignment**
1,2,3	+V
4,5,6	-V