

**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: PSPS45 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)	0.8A @ 115VAC    0.56A @ 230VAC
Inrush Current (typical)	15A @ 115VAC    30A @ 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; 52W (+3.3V: 35W) with 18CFM min.
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 (See Note 2)	See Table
Setup, Rise Time	800ms, 30ms at full load
Hold Up Time	60ms at full load
Temperature Coefficient	±0.05%/°C (0~50°C)

**PROTECTION**

Over Voltage Protection	See Table Protection Type: Hiccup mode, recovers automatically after fault condition is removed.
Overload Protection	53 ~ 75W (3.3V: 36 ~ 55W) 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 28(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.

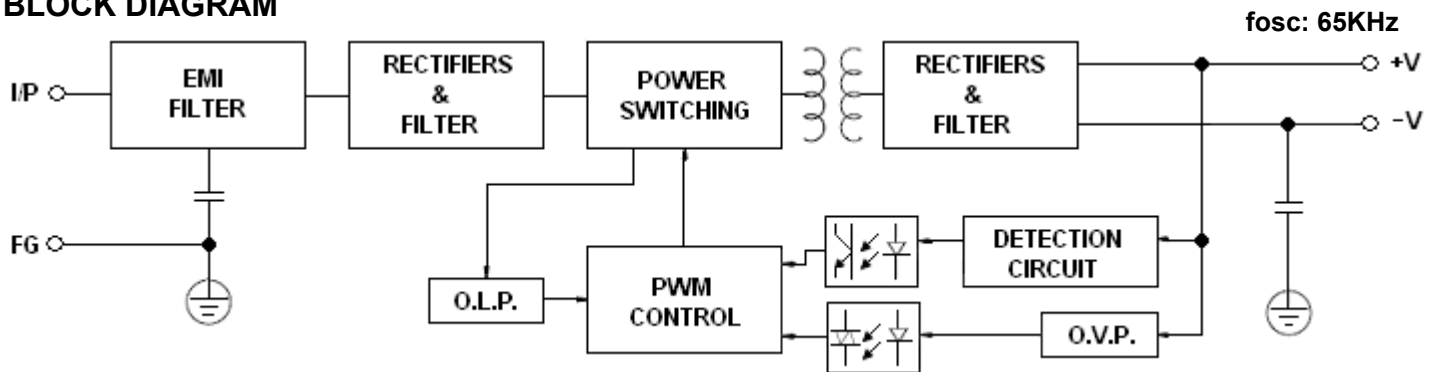
## OUTPUT VOLTAGE / CURRENT RATING CHART

Model	Input Voltage	Output Voltage	Voltage Adj. Range	Rated Current	Current Range	Ripple & Noise	Output Power	Over Voltage Protection	Efficiency
PSPS-45-3.3	90 ~ 264VAC (127 ~ 370VDC)	3.3 VDC	3.14 ~ 3.63V	8A	0 ~ 10.7A	80mVp-p	26.4W	3.8 ~ 4.46V	69%
PSPS-45-5		5 VDC	4.75 ~ 5.5V	8A	0 ~ 10.5A	100mVp-p	40W	5.75 ~ 6.75V	74%
PSPS-45-7.5		7.5 VDC	7.13 ~ 8.25V	5.4A	0 ~ 7A	100mVp-p	40.5W	8.63 ~ 10.1V	75%
PSPS-45-12		12 VDC	11.4 ~ 13.2V	3.7A	0 ~ 4.4A	100mVp-p	44.4W	13.8 ~ 16.2V	76%
PSPS-45-13.5		13.5 VDC	12.8 ~ 14.85V	3.3A	0 ~ 3.9A	100mVp-p	44.6W	15.5 ~ 18.2V	77%
PSPS-45-15		15 VDC	14.25 ~ 16.5V	3A	0 ~ 3.5A	100mVp-p	45W	17.25 ~ 20.25V	77%
PSPS-45-24		24 VDC	22.8 ~ 26.4V	1.9A	0 ~ 2.2A	100mVp-p	45.6W	27.6 ~ 32.4V	78%
PSPS-45-27		27 VDC	25.65 ~ 29.7V	1.7A	0 ~ 1.95A	100mVp-p	45.9W	31 ~ 36.45V	78%
PSPS-45-48		48 VDC	45.6 ~ 52.8V	1A	0 ~ 1.1A	100mVp-p	48W	55.2 ~ 64.8V	78%

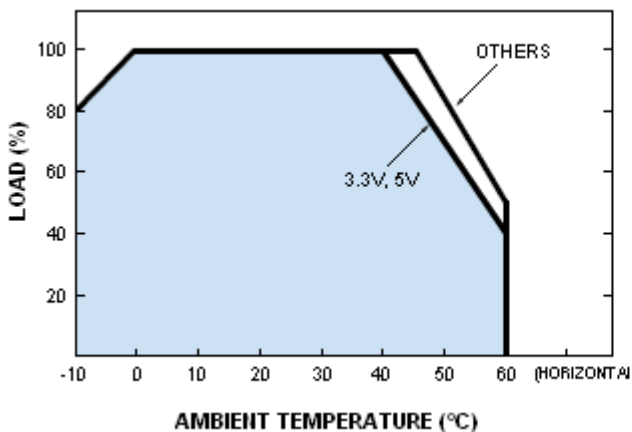
## NOTES

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.

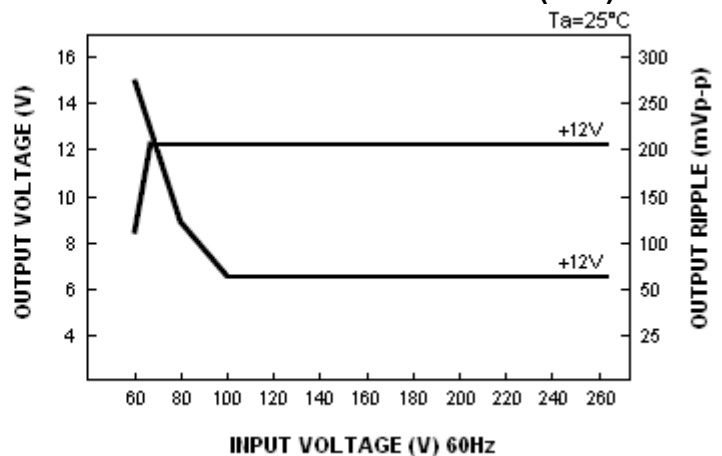
## BLOCK DIAGRAM



## DERATING CURVE

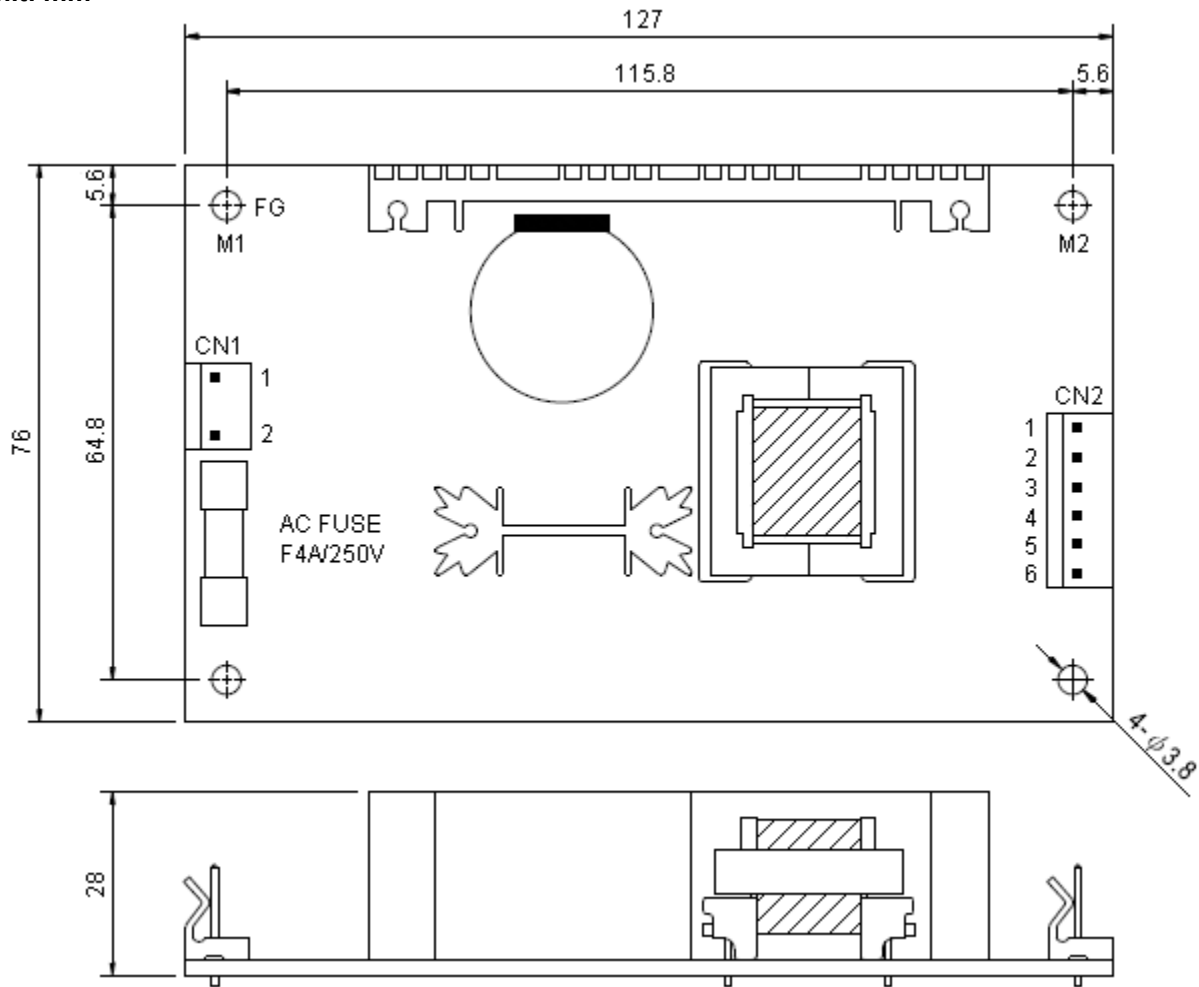


## STATIC CHARACTERISTICS (12V)



**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