

FEATURES

- Low Cost
- High Reliability
- 3 Year Warranty
- Low Leakage Current 0.3mA
- Universal AC Input / Full Range
- Fixed Switching Frequency at 100KHz
- Protections: Short Circuit /Overload /Over Voltage /Over Temperature



SPECIFICATIONS: PSMPS30 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	88 – 264VAC auto switch (127 – 370VDC)
Input Frequency	47 to 63Hz
AC Current (typical)	0.8A @ 115VAC / 0.5A @ 230VAC
Inrush Current	30A @ 230VAC cold start
Leakage Current	Less than 0.3mA @ 264VAC

OUTPUT SPECIFICATIONS

Output Voltage	See Table
Output Voltage Tolerance	±3% for all models except PSMPS-30-48 (±2%)
Output Power	See Table
Line Regulation	±1% max.
Load Regulation	±1% for all models except PSMPS-30-5 (±2%)
Output Current	See Table
Ripple & Noise (20MHz BW)	See Table
Setup, Rise Time	500ms and 30ms @ 230VAC and full load / 500ms and 30ms @ 115VAC and full load
Hold-Up Time	70ms @ 230VAC and full load / 12 ms @ 115VAC and full load.
Temperature Coefficient	±0.03%/°C (0~50°C)

PROTECTION

Over Voltage Protection	Protection Type: Shutdown output voltage, re-power on to recover
Overload Protection	Above 105% rated output power. Protection Type: Hiccup mode, recovers automatically after fault condition is removed.
Over Temperature Protection	Protection Type: Shutdown output voltage, recovers automatically after temperature goes down. Tj 135°C typically (U1) Detect on main control IC.

GENERAL SPECIFICATIONS

Switching Frequency (fixed)	100KHz
Efficiency	See Table
Isolation Voltage	4000VAC (Input to Output), 1500VAC (Input to FG), SHORT (Output to FG)
Isolation Resistance	100MΩ / 500VDC (Input to Output), 100MΩ / 500VDC (Input to FG)

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	-10°C to +60°C (refer to derating curve)
Storage Temperature	-20°C to +85°C
Operating Humidity (non-condensing)	20% to 90% RH
Storage Humidity (non-condensing)	10% to 95% RH
Vibration	10~500Hz, 2G 10min./1cycle, Period for 60 minutes each along X, Y, and Z axes.
MTBF	547,000 hours min. (According to MIL-HDBK-217) at 25°C

PHYSICAL SPECIFICATIONS

Weight	150g
Dimensions	101.6(L) x 65.8(W) x 23.5(H) mm

SAFETY & EMC

Safety Standards	UL2601-1, TUV EN60601-1, IEC601-1 Approved
EMI Conduction & Radiation	Compliance to EN55011 (CISPR11) 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, EN60601-1-2, Medical level, criteria A



Wall Industries, Inc.

PSMPS30 Series
Single Output
Up to 30 Watts
AC/DC Medical Power Supply

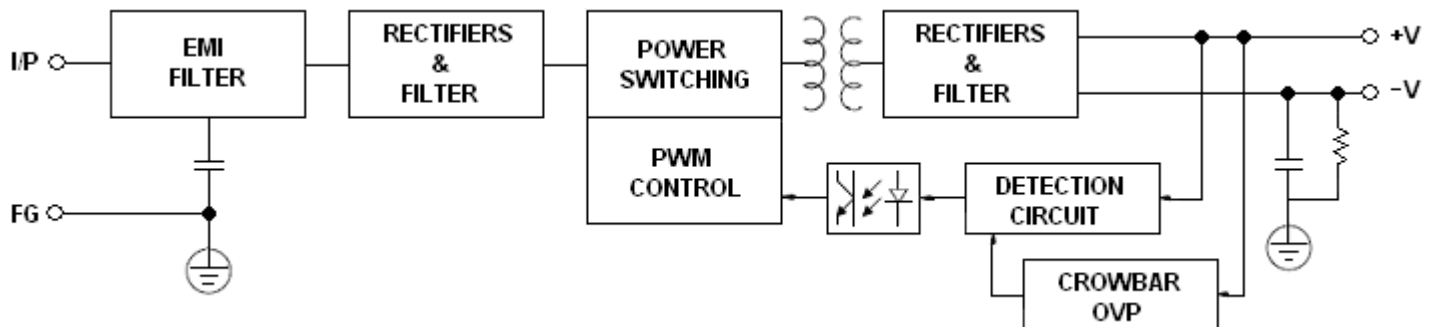
OUTPUT VOLTAGE / CURRENT RATING CHART

Model	Input Voltage	Output Voltage	Output Current	Ripple & Noise	Output Power	Efficiency
PSMPS-30-5	88~264VAC 120~370VDC	5 VDC	5A	80mV	25W	72%
PSMPS-30-12		12 VDC	2.5A	120mV	30W	75%
PSMPS-30-15		15 VDC	2A	150mV	30W	76%
PSMPS-30-24		24 VDC	1.2A	240mV	28.8W	77%
PSMPS-30-27		27 VDC	1.1A	240mV	29.7W	78%
PSMPS-30-48		48 VDC	0.6A	240mV	28.8W	78%

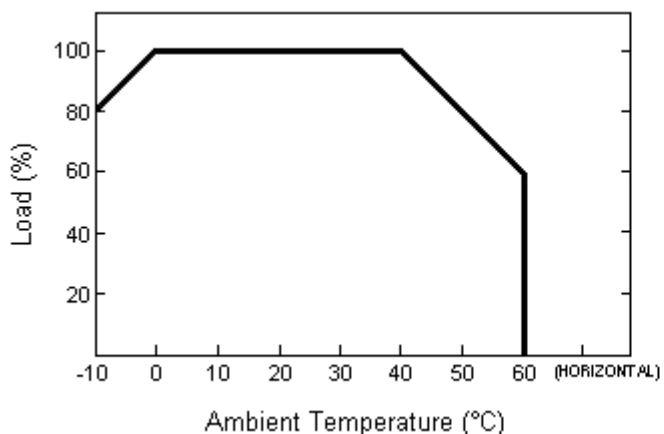
NOTES

1. All parameters NOT specially mentioned are measured at 230VAC input, rated load, and 25°C ambient temperature.
2. Ripple & noise is measured at 20MHz bandwidth by using a 12" twisted pair-wire terminated with a 0.1 μ F and 47 μ F 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 final equipment. The final equipment must be re-confirmed that it still meets EMC directives.

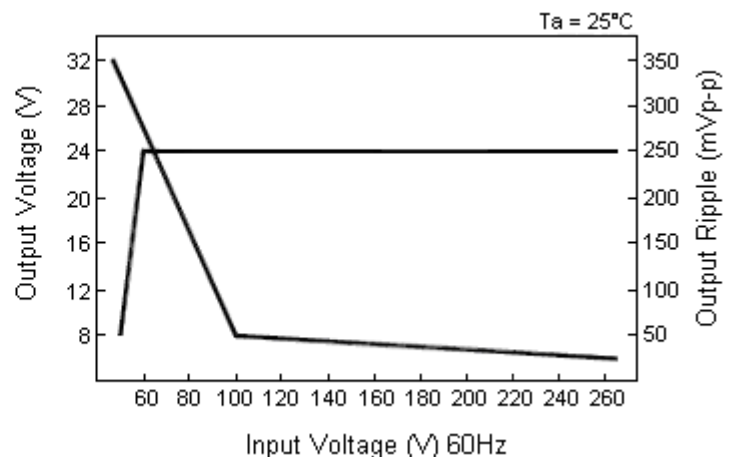
BLOCK DIAGRAM



DERATING CURVE

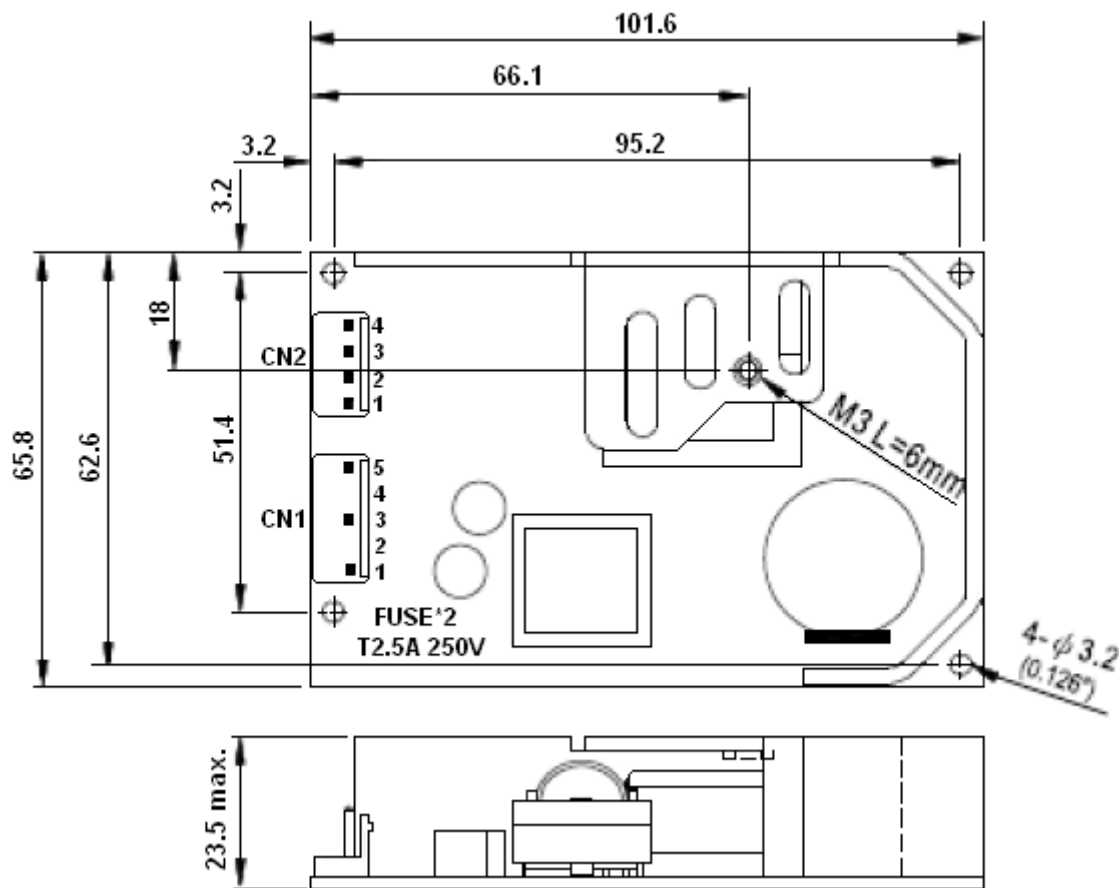


STATIC CHARACTERISTICS



MECHANICAL DRAWING

Unit: mm



AC Input Connector (CN1): Molex 5277-02 or equivalent

Pin. No	Assignment	Mating Housing	Terminal
1,2	-V	Molex 2139 or equivalent	Molex 2478 or equivalent
3,4	+V		

DC Output Connector (CN2): Molex 41791-5 or equivalent

Pin No.	Assignment	Mating Housing	Terminal
1	FG	Molex 2139 or equivalent	Molex 2478 or equivalent
2,4	No Pin		
3	AC/N		
5	AC/L		