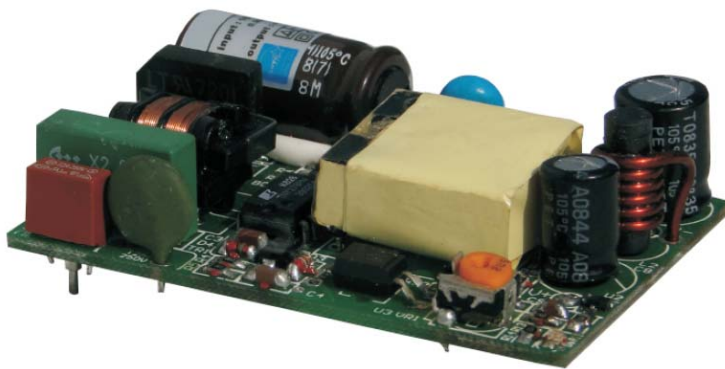


Wall Industries, Inc.

PSMP10 SERIES

85~264VAC (125~373VDC) Input
Single Outputs
10 Watts Output Power
Medical AC/DC Power Supplies



FEATURES

- Single Output
- Isolation Class II
- RoHS Compliant
- Universal AC Input / Full Range
- $\pm 10\%$ Output Voltage Adjustability
- Green Design, No-load Power Consumption $< 0.3W$
- Energy Star Compliant
- Cooling by Free Air Convection
- All Using 105°C Long Life Electrolytic Capacitors
- Wide Operating Temperature Range: $-20^{\circ}C$ to $+70^{\circ}C$
- 100% Full Load Burn-In Tested
- Withstand 2G Vibration Test
- Brown-out (Low AC Input Voltage) Protection
- Over Voltage, Over Load, and Short Circuit Protection
- 3 Year Warranty
- UL60601-1, TUV EN60601-1, IEC60601-1 Medical Safety Approvals



DESCRIPTION

The PSMP10 series of Class II medical AC/DC switching power supplies offers 10 Watts of output power in a 2.56" x 1.77" x 0.87" open frame design. This series has a universal input voltage range of 85~264VAC (125~373VDC) and single outputs of 5, 12, 15, and 24VDC. Some features include high efficiency up to 82%, $\pm 10\%$ output adjustability, no-load power consumption $< 0.3W$, and a wide operating temperature range of $-20^{\circ}C$ to $+70^{\circ}C$. This series also has over voltage, short circuit, over load, and brown-out (low AC input voltage) protection. All models have been 100% full load burn-in tested and are RoHS and Energy Star compliant. These supplies have UL60601-1, TUV EN60601-1, and IEC60601-1 medical approvals.

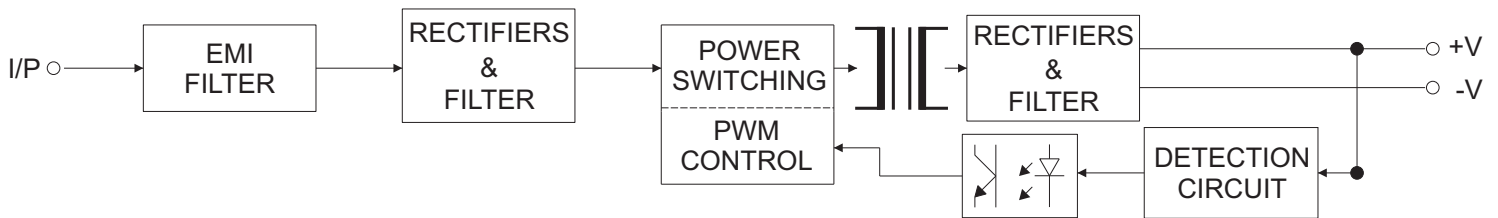
SPECIFICATIONS: PSMP10 Series	
All specifications are based on 25°C, Nominal Input Voltage, and Maximum Output Current unless otherwise noted. We reserve the right to change specifications based on technological advances.	
INPUT SPECIFICATIONS	
Input Voltage Range	85 ~ 264VAC (125 ~ 373VDC)
Input Frequency	47Hz ~ 60Hz
AC Current (typical)	0.25A at 115VAC; 0.15A at 230VAC
Inrush Current (typical)	Cold Start 25A at 115VAC; 45A at 230VAC
OUTPUT SPECIFICATIONS	
Output Voltage	See Table
Output Power	See Table
Output Voltage Adjustability	±10%
Voltage Tolerance (<i>see note 2</i>)	5VDC Output Model: ±2% 12~24VDC Output Models: ±1%
Load Regulation (0% to 100% Load)	5VDC Output Model: ±1% 12~24VDC Output Models: ±0.5%
Line Regulation (LL to HL at full load)	±0.5% (measured from low line to high line at full load)
Output Current	See Table
Ripple & Noise (<i>see note 1</i>)	See Table
Setup, Rise Time (<i>see note 3</i>)	100ms, 25ms at 115VAC and full load 100ms, 25ms at 230VAC and full load
Hold-Up Time	25ms at 115VAC and full load; 100ms at 230VAC and full load
Temperature Coefficient	±0.03% / °C (0~50°C)
PROTECTION	
Short Circuit Protection	yes
Over Voltage Protection	115% ~ 145% rated output voltage Protection type: latch-off mode
Over Load Protection	> 110% rated output power Protection Type: hiccup mode; recover automatically after fault condition is removed
Brown-Out Protection (Low AC Input)	yes
GENERAL SPECIFICATIONS	
Efficiency	See Table
Withstand Voltage (Input to Output)	4000VAC
Isolation Resistance (Input to Output)	100MΩ at 500VDC
ENVIRONMENTAL SPECIFICATIONS	
Working Temperature	-20C to +70°C (see derating curve)
Storage Temperature	-40°C to +85°C
Working Humidity	20% to 90% RH (non-condensing)
Storage Humidity	10% to 95% RH
Vibration	10 ~ 500Hz, 2G 10min/1cycle, period for 60 minutes each along X,Y,Z axes.
Cooling	Free air convection
MTBF	210,200 hours (Compliance: MIL-HDBK-217F)
PHYSICAL SPECIFICATIONS	
Weight, Packing	1.6oz (45g); 120pcs/5.4kg
Dimensions (L x W x H)	2.56 x 1.77 x 0.87 inches (65 x 45 x 22 mm)
Warranty	3 years
SAFETY & EMC (<i>see note 5</i>)	
Safety Standards	UL60601-1, TUV EN60601-1, IEC60601-1 Approved
EMI Conduction & Radiation	EN55011: 2007+A2: 2007 Class B
Harmonic Current	EN61000-3-2: 2006 Class A, EN61000-3-3: 1995+A1: 2001+A2: 2005
EMS Immunity	EN60601-1-2: 2001+A1: 2006, IEC61000-4-2,3,4,5,6,8,11 light industry level, criteria A

MODEL SELECTION TABLE						
Model Number	Input Voltage Range	Output Voltage	Output Current	Output ⁽¹⁾ Ripple & Noise	Output Power	Efficiency ⁽⁴⁾
PSMP-10-5	85 ~ 264 VAC (125 ~ 373 VDC)	5 VDC	2A	80mVp-p	10W	77%
PSMP-10-12		12 VDC	0.83A	150mVp-p	10W	79%
PSMP-10-15		15 VDC	0.66A	150mVp-p	10W	80%
PSMP-10-24		24 VDC	0.42A	240mVp-p	10W	82%

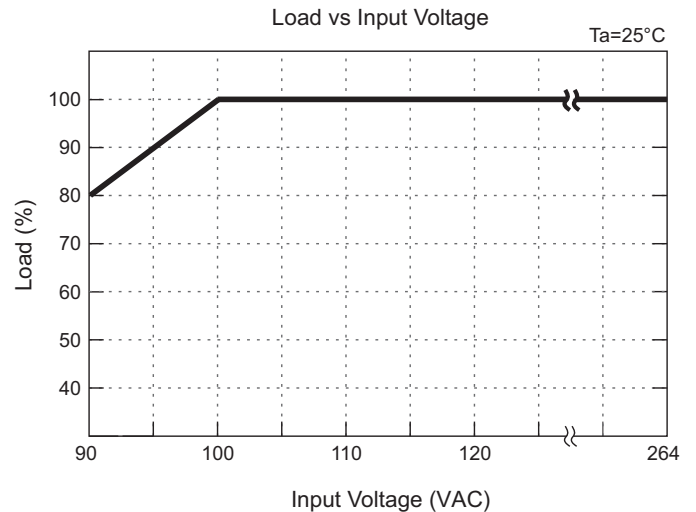
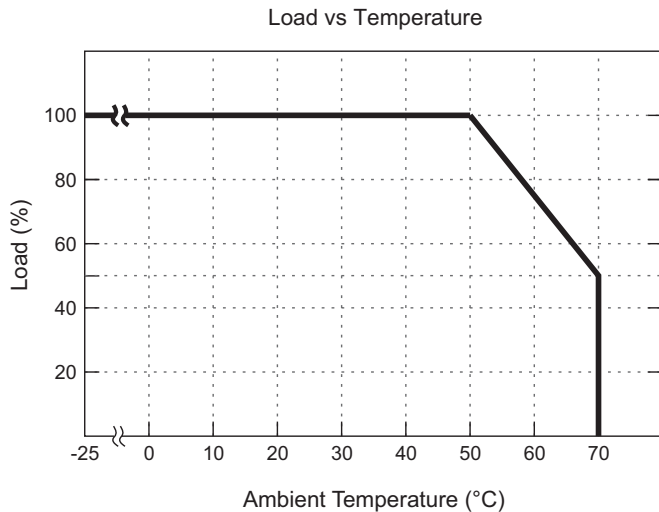
NOTES

1. Ripple & noise is measured at 20MHz bandwidth by using a 12" twisted pair-wire terminated with a 0.1µF capacitor and a 47µF capacitor in parallel.
2. Tolerance includes set up tolerance, line regulation, and load regulation.
3. The length of the setup time is measured at first cold start; turning the power supply on and off very quickly may lead to an increase in the setup time.
4. Typical value at 230VAC and full load.
5. 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

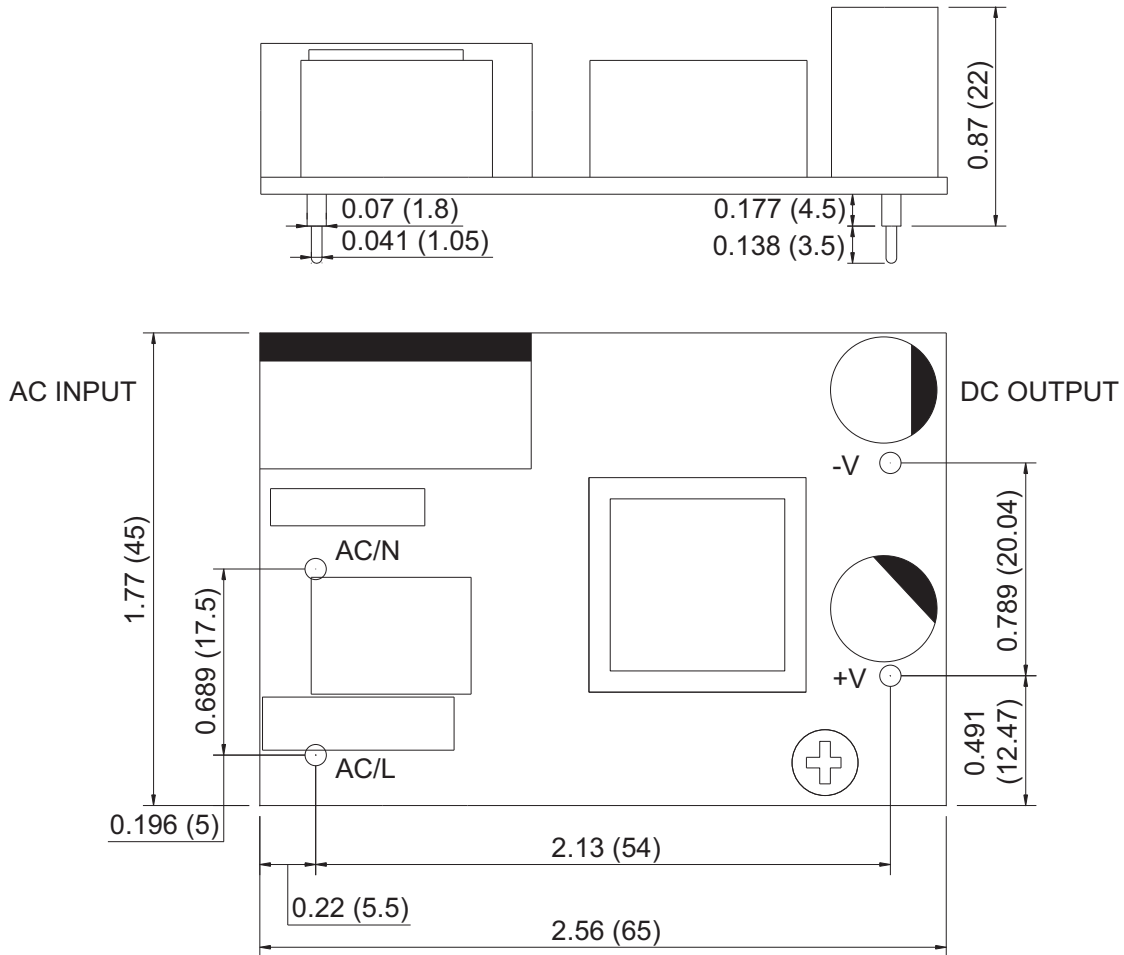


DERATING CURVES



MECHANICAL DRAWING

Unit: inches (mm)



COMPANY INFORMATION

Wall Industries, Inc. has created custom and modified units for over 50 years. Our in-house research and development engineers will provide a solution that exceeds your performance requirements on-time and on budget. Our ISO9001-2008 certification is just one example of our commitment to producing a high quality, well-documented product for our customers.

Our past projects demonstrate our commitment to you, our customer. Wall Industries, Inc. has a reputation for working closely with its customers to ensure each solution meets or exceeds form, fit and function requirements. We will continue to provide ongoing support for your project above and beyond the design and production phases. Give us a call today to discuss your future projects.

Contact **Wall Industries** for further information:

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