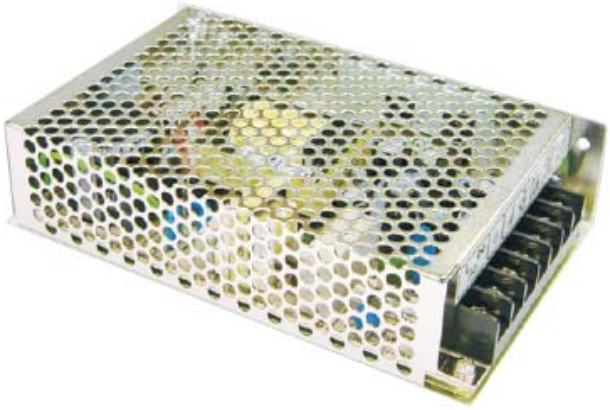
Wall Industries, Inc.

DATASHEET
Rev. B

PST60 SERIES

85~264VAC (120~370VDC) Input
Triple Output
Up to 62.5 Watts
AC/DC Switching Power Supplies



FEATURES

- **Triple Output**
- **2 Year Warranty**
- **RoHS Compliant**
- **Low Cost, High Reliability**
- **Compact Size, Light Weight**
- **LED Indicator for Power ON**
- **100% Full Load Burn-in Tested**
- **Universal AC Input (Full Range)**
- **Fixed Switching Frequency at 50kHz**
- **High Efficiency, Low Working Temperature**
- **Soft-Start Circuit, Limiting AC Surge Current**
- **Short Circuit, Over Voltage, and Over Load Protection**

DESCRIPTION

The PST60 series of AC/DC switching power supplies provides up to 62.5 watts of continuous output power in an enclosed design. This series consists of triple output models with an 85~264VAC (120~370VDC) input voltage range. These supplies also have short circuit, over voltage, and over load protection. All units are RoHS compliant and 100% burn-in tested.

SPECIFICATIONS: *PST60 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	85 ~ 264VAC (120 ~ 370VDC)
Input Frequency	47 ~ 63Hz
AC Current (typical)	2A @ 115VAC; 1A @ 230VAC
Inrush Current (typical)	cold start 20A @ 115VAC cold start 40A @ 230VAC
OUTPUT SPECIFICATIONS	
Output Voltage	See table
Voltage Tolerance *(See Note 2)*	All Models: CH 1: ±2.0% CH.2: ±6.0% CH 3: ±6.0%
Voltage Adjustment Range	All Models: CH1: 4.75 ~ 5.5V
Output Power (max)	See table
Line Regulation	All Models: CH 1: ±0.5% CH.2: ±1.0% CH 3: ±0.5%
Load Regulation	All Models: CH 1: ±1.0% CH.2: ±4.0% CH 3: ±1.0%
Output Current	See table
Ripple & Noise *(See Note 1)*	See table
Setup, Rise Time	800ms, 50ms @ 115VAC and full load; 300ms, 50ms @ 230VAC and full load
Hold Up Time (typical)	10ms @ 115VAC and full load; 80ms @ 230VAC and full load
Temperature Coefficient	±0.03%/°C (0~50°C) on +5V output.
PROTECTION	
Over Voltage Protection	CH.1: 5.75 ~ 6.75VDC Protection Type: Hiccup mode, recovers automatically after fault condition is removed.
Over Load Protection	105 ~ 150% rated output power. Protection Type: Hiccup mode, recovers automatically after fault condition is removed.
GENERAL SPECIFICATIONS	
Switching Frequency (fixed)	50KHz
Efficiency (typical)	See table
Withstand Voltage	3000VAC (input to output) 1500VAC (input to FG) 500VAC (output to FG)
Isolation Resistance	100MΩ / 500VDC (input to output, input to FG, output to FG)
Leakage Current	< 3.5mA @ 240VAC
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.
MTBF	281,100 hours min. MIL-HDBK-217 (25°C)
PHYSICAL SPECIFICATIONS	
Weight	19.4oz (550g)
Dimensions (L x W x H)	6.26 x 3.82 x 1.50 inches (159 x 97 x 38 mm)
Warranty	2 years
SAFETY & EMC *(See Note 3)*	
Safety Standards	UL1012, UL60950, TUV EN60950 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; ENV50204, EN55024, Light industry level, criteria A

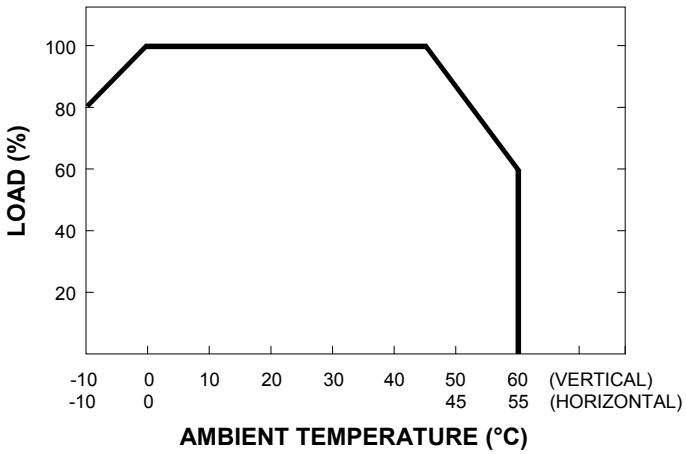
MODEL SELECTION TABLE

Model		Input Voltage	Output Voltage	Output Current Range	Rated Output Current	Ripple & Noise (1)	Output Power	Efficiency
PST-60A	CH 1	85~264 VAC (120~370 VDC)	5 VDC	0.5 ~ 7A	5A	100mVp-p	57.5W	72%
	CH 2		12 VDC	0.2 ~ 3.5A	2.5A	100mVp-p		
	CH 3		-5 VDC	0 ~ 1A	0.5A	100mVp-p		
PST-60B	CH 1		5 VDC	0.5 ~ 7A	5A	100mVp-p	61W	72%
	CH 2		12 VDC	0.2 ~ 3.5A	2.5A	100mVp-p		
	CH 3		-12 VDC	0 ~ 1A	0.5A	100mVp-p		
PST-60C	CH 1		5 VDC	0.5 ~ 7A	5A	100mVp-p	62.5W	72%
	CH 2		15 VDC	0.2 ~ 3A	2A	100mVp-p		
	CH 3		-15 VDC	0 ~ 1A	0.5A	100mVp-p		

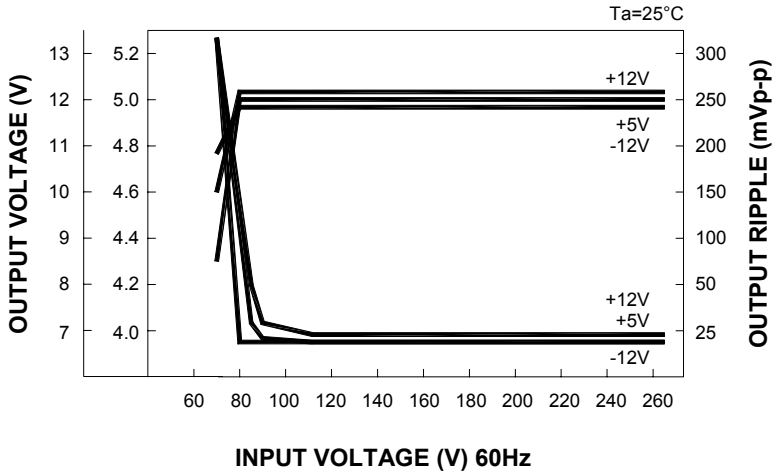
NOTES

1. Ripple & noise is measured at 20MHz using a 12" twisted pair-wire terminated with 0.1µF and 47µF capacitors in parallel.
2. Tolerance includes set up tolerance, line regulation, and load regulation.
3. 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.

DERATING CURVE

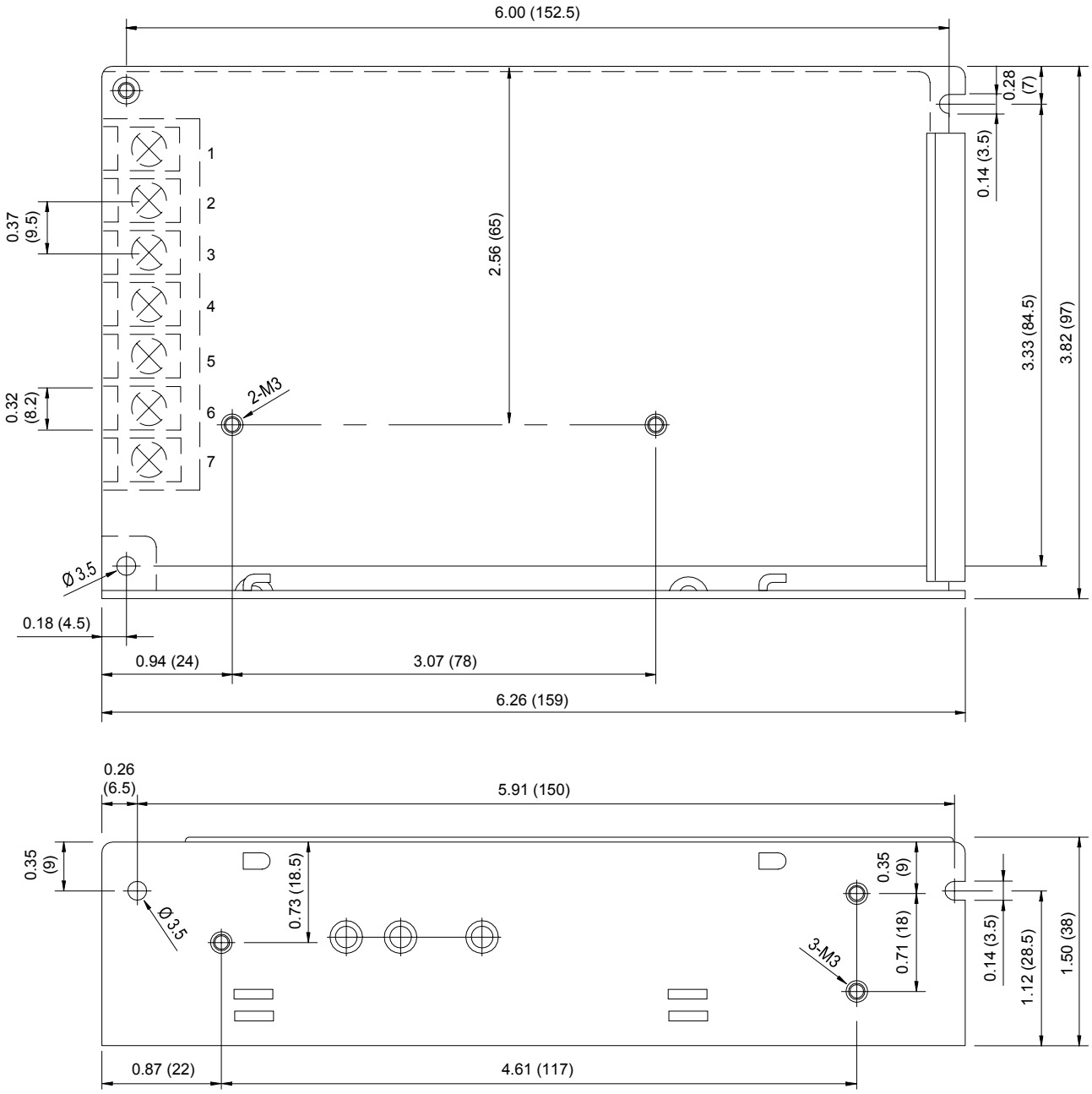


STATIC CHARACTERISTICS



MECHANICAL DRAWING

Unit: inches (mm)



PIN CONNECTIONS	
Pin No	Assignment
1	AC (L)
2	AC (N)
3	FG
4	DC Output –V
5	DC Output +V2
6	DC Output COM
7	DC Output +V1

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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