Wall Industries, Inc.

PSPSS-60 SERIES

90 ~ 264VAC Input
Open Frame, Single Output
Up to 60W Output Power
AC/DC Switching Power Supply

FEATURES

- Single Output
- RoHS Compliant
- Universal AC Input (Full Range)
- High Efficiency
- Low Power Consumption
- Over Voltage, Over Load, and Short Circuit Protected
- Wide Operating Ambient Temperature (-20°C to +70°C)
- All Using 105°C Long Life Electrolytic Capacitors
- Up to 60W Output Power
- 100% Full Load Burn-in Tested
- Dimensions: 4” x 2” x 1.18”
- Output Voltages Available from 3.3VDC to 48VDC

DESCRIPTION

The PSPSS-60 series of AC/DC switching power supplies offers up to 60W of output power in a 4” x 2” x 1.18” open frame constructed design. All models have a single output and a universal AC input. Some features include wide operating temperature range (-20°C to +70°C), efficiency up to 87%, and output adjustability. These supplies are RoHS compliant and have UL/cUL, CB, and CE safety approvals. All models are protected against over load, over voltage, and short circuit conditions. All units are 100% full load burn-in tested.

SPECIFICATIONS: *PSPSS-60 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	90 ~ 264VAC (AC input range selected with switching)
Input Frequency	47 to 63Hz
AC Current	< 1.5A max
Inrush Current (typical)	< 30A @ 120VAC; < 60A @ 230VAC Cold Start
OUTPUT SPECIFICATIONS	
Output Voltage	See Table
Voltage Accuracy	±3.0%
Voltage Adjustment Range	-5.0% ~ +10% of rated output voltage
Line Regulation	±0.5%
Load Regulation	±2.0%
Output Current	See Table
Ripple & Noise *(See Note 1)*	See Table
Setup Time	≤ 1.0s at 230VAC and full load
Hold Up Time	≥ 20ms at 230VAC and full load
Temperature Coefficient	±0.03%/°C
Overshoot and Undershoot	< 5.0%
PROTECTION	
Over Load Protection	105% ~ 180% of rated output current, hiccup mode, auto-recovery
Over Voltage Protection	110% ~ 150% of rated output voltage, constant voltage
Short Circuit Protection	Long-term mode, auto-recovery
GENERAL SPECIFICATIONS	
Efficiency (typical)	See Table
Withstand Voltage (Primary to Secondary)	3000VAC; ≤ 10mA
Isolation Resistance	≥ 100MΩ
Leakage Current	< 0.25mA
ENVIRONMENTAL SPECIFICATIONS	
Operating Ambient Temperature	-20°C to +70°C
Storage Temperature	-40°C to +85°C
Working Humidity (non-condensing)	20 ~ 90% RH
Storage Humidity (non-condensing)	10 ~ 95% RH
Cooling Method	Free air convection
MTBF (MIL-HDBK-217F)	> 100,000 hours @ 25°C and full load
PHYSICAL SPECIFICATIONS	
Dimensions (L x W x H)	4.00 x 2.00 x 1.18 inches (101.6 x 50.8 x 30 mm)
Packing	48PCS/CTN, 12Kgs, 0.024CBM
Weight	8.82oz (250g)
SAFETY & EMC *(See Note 2)*	
Safety Standards	GB4943-2001, EN60950-1: 2006
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, light industry level, criteria A

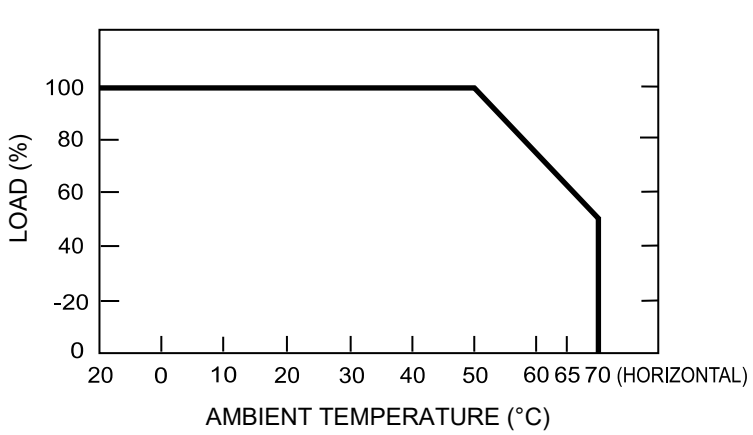
MODEL SELECTION TABLE							
Model Number	Input Voltage	Output Voltage	Output Current	Ripple & Noise (1)		Output Power	Efficiency
				-25°C~0°C	0°C~+70°C		
PSPSS-60-3.3	90 ~ 264 VAC	3.3 VDC	8.0A	200mVp-p	80mVp-p	26.4W	75%
PSPSS-60-5		5 VDC	8.0A	200mVp-p	80mVp-p	40W	81%
PSPSS-60-12		12 VDC	4.5A	300mVp-p	120mVp-p	54W	84%
PSPSS-60-15		15 VDC	3.6A	360mVp-p	150mVp-p	54W	84%
PSPSS-60-24		24 VDC	2.5A	360mVp-p	240mVp-p	60W	86%
PSPSS-60-48		48 VDC	1.25A	600mVp-p	240mVp-p	60W	87%

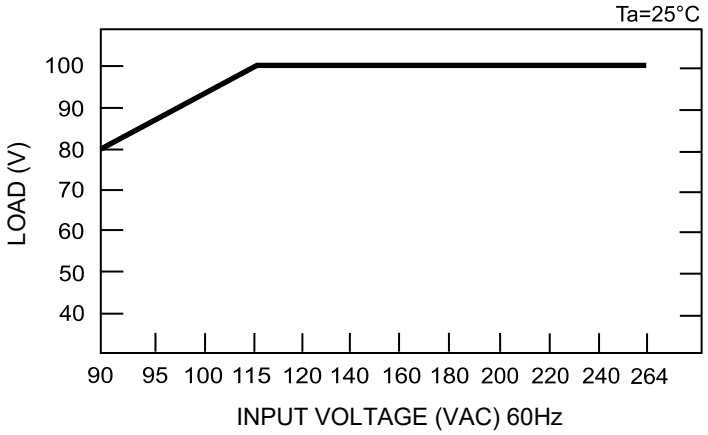
NOTES

1. Ripple & noise is measured at 20MHz bandwidth by using a 12" twisted pair-wire terminated with 0.1µF and 47µF capacitors in parallel.
2. The SPS is considered a component which will be installed into final equipment. The final equipment must be re-confirmed that it still meets EMC directives.

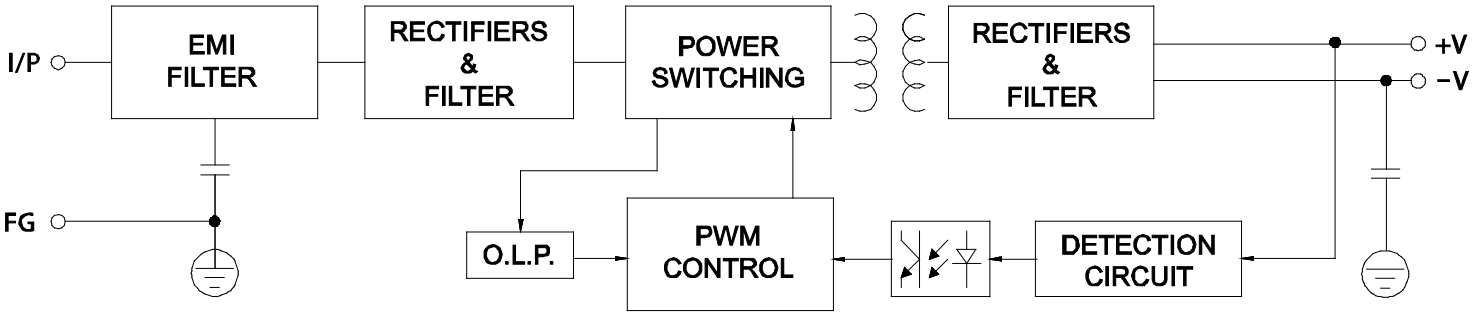
**Due to advances in technology, specifications subject to change without notice.*

DERATING CURVES



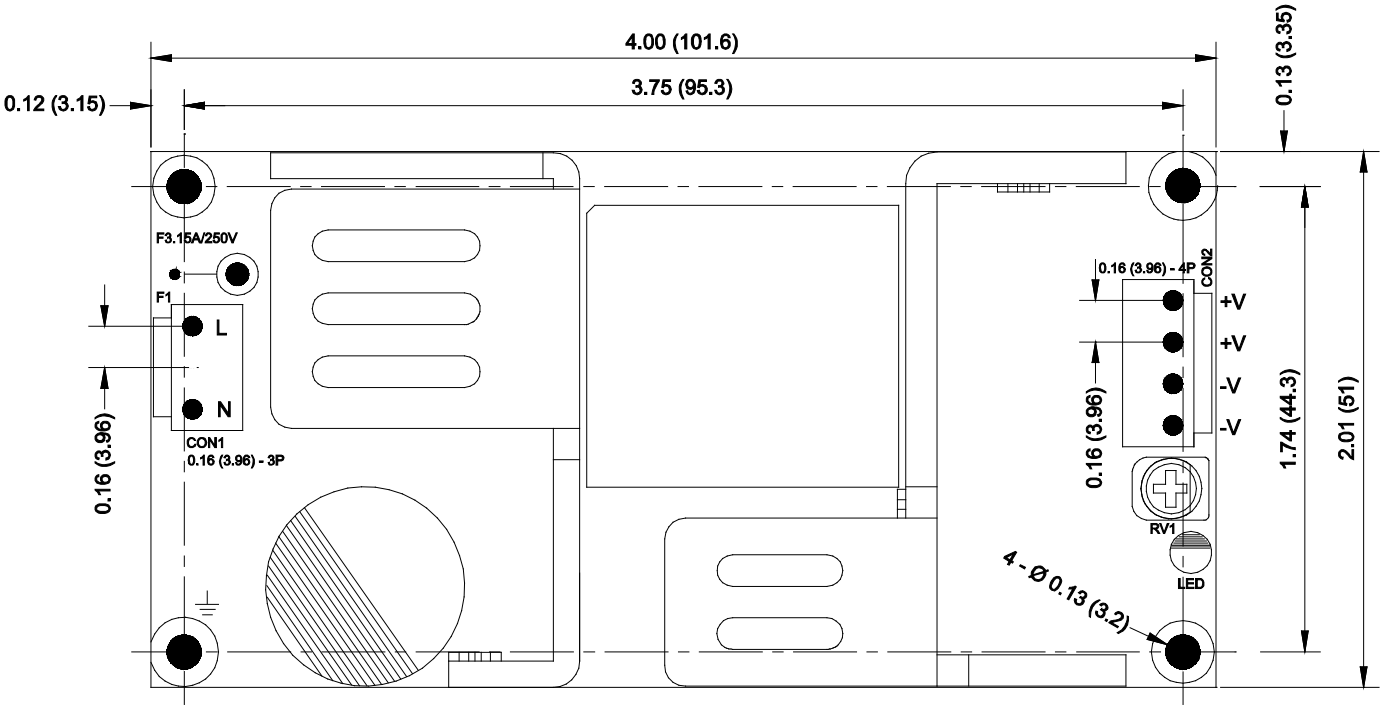


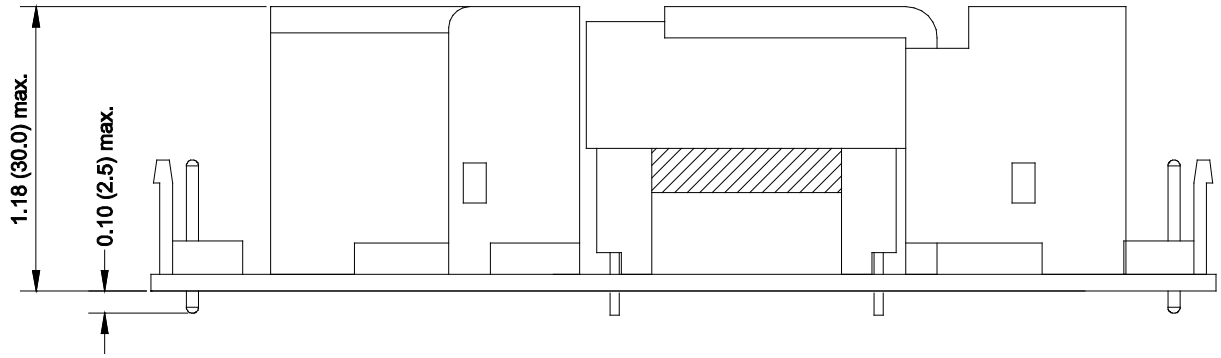
BLOCK DIAGRAM



MECHANICAL DRAWING

Unit: inches (mm)





ITEM	CONNECTORS	MATING HOUSING	CONTACTS
AC IN (CON1)	LANDWIN 3961P0300T (Central Pin Removed)	LANDWIN 3960S or JST VHR or Molex 51144	LANDWIN 3963T011R or SVH-21T-P1.1 or Molex 50539
DC OUT (CON2)	LANDWIN 3961P0400T		

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: 2015 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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