

Wall Industries, Inc.

PSPDS-15 SERIES

88 ~ 264VAC Input
Single Outputs
Up to 16.8W Output Power
AC/DC Switching Power Supply



FEATURES

- Single Output
- RoHS Compliant
- Universal AC Input (Full Range)
- High Efficiency and High Reliability
- 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 16.8W Output Power
- 100% Full Load Burn-in Tested
- Output Voltages Available from 3.3VDC to 24VDC
- Dimensions: 3.11" x 2.01" x 1.10"

DESCRIPTION

The PSPDS-15 series of AC/DC switching power supplies offers up to 16.8W of output power in a 3.11" x 2.01" x 1.10" package. 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 83%, 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 models are 100% full load burn-in tested.

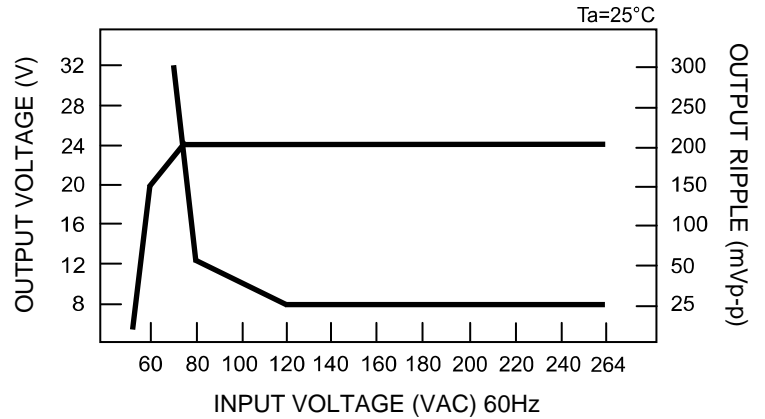
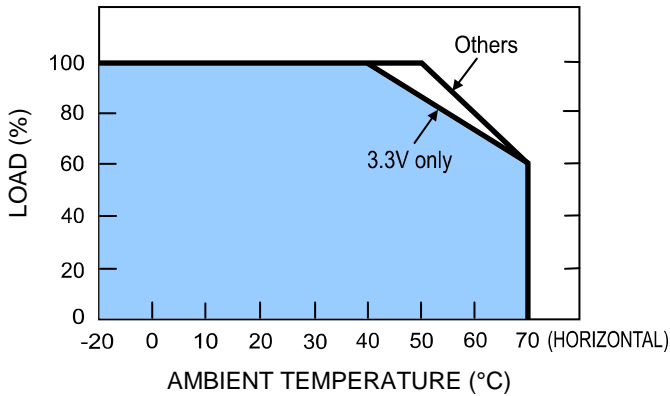
SPECIFICATIONS: PSPDS-15 SERIES		
All specifications are based on 25°C, Nominal Input Voltage, and Maximum Output Current unless otherwise noted. We reserve the right to change specifications based on technological advances.		
INPUT SPECIFICATIONS		
Input Voltage Range	88 ~ 264VAC	
Input Frequency	47 to 63Hz	
AC Current	0.7A max	
Inrush Current (typical)	20A @ 115VAC; 40A @ 230VAC Cold Start	
OUTPUT SPECIFICATIONS		
Output Voltage	See Table	
Voltage Accuracy	±3.0%	
Voltage Adjustment Range	±5% of rated output voltage	
Line Regulation	±1.0%	
Load Regulation	±2.0%	
Output Current	See Table	
Ripple & Noise <i>(See Note 1)</i>	See Table	
Setup Time	< 2.0s at 115VAC and full load; < 1.0s at 230VAC and full load	
Hold Up Time	> 10ms at 115VAC and full load; > 20ms at 230VAC and full load	
Temperature Coefficient	±0.03%/°C	
Overshoot and Undershoot	< 5.0%	
PROTECTION		
Over Load Protection	105% ~ 150% of rated output current, hiccup mode, auto-recovery	
Over Voltage Protection	105% ~ 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
	Primary to PG	1500VAC; ≤ 10mA
	Secondary to PG	500VDC; ≤ 10mA
Isolation Resistance	≥ 100MΩ	
Leakage Current	Input to Output	< 0.25mA
	Input to PG	< 3.5mA
ENVIRONMENTAL SPECIFICATIONS		
Operating Ambient Temperature	-20°C to +70°C	
Storage Temperature	-40°C to +85°C	
Working Humidity	20 ~ 90% RH non-condensing	
Storage Humidity	10 ~ 95% RH non-condensing	
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)	3.11 x 2.01 x 1.10 inches (79 x 51 x 28 mm)	
Packing	48PCS/CTN, 10.4Kgs, 0.03CBM	
SAFETY & EMC <i>(See Note 2)</i>		
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 (230VAC)
				-20°C~0°C	0°C~+50°C		
PSPDS-15-3.3	88 ~ 264 VAC	3.3 VDC	4A	50mVp-p	50mVp-p	13.2W	70%
PSPDS-15-5		5 VDC	3A	50mVp-p	50mVp-p	15W	76%
PSPDS-15-12		12 VDC	1.3A	120mVp-p	120mVp-p	15.6W	80%
PSPDS-15-15		15 VDC	1A	120mVp-p	120mVp-p	15W	81%
PSPDS-15-24		24 VDC	0.7A	120mVp-p	120mVp-p	16.8W	83%

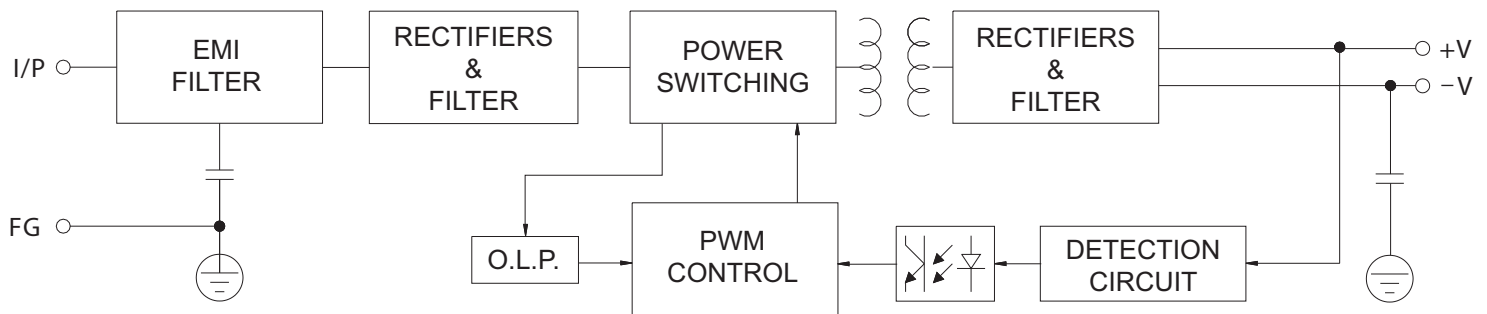
NOTES

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.

DERATING CURVES

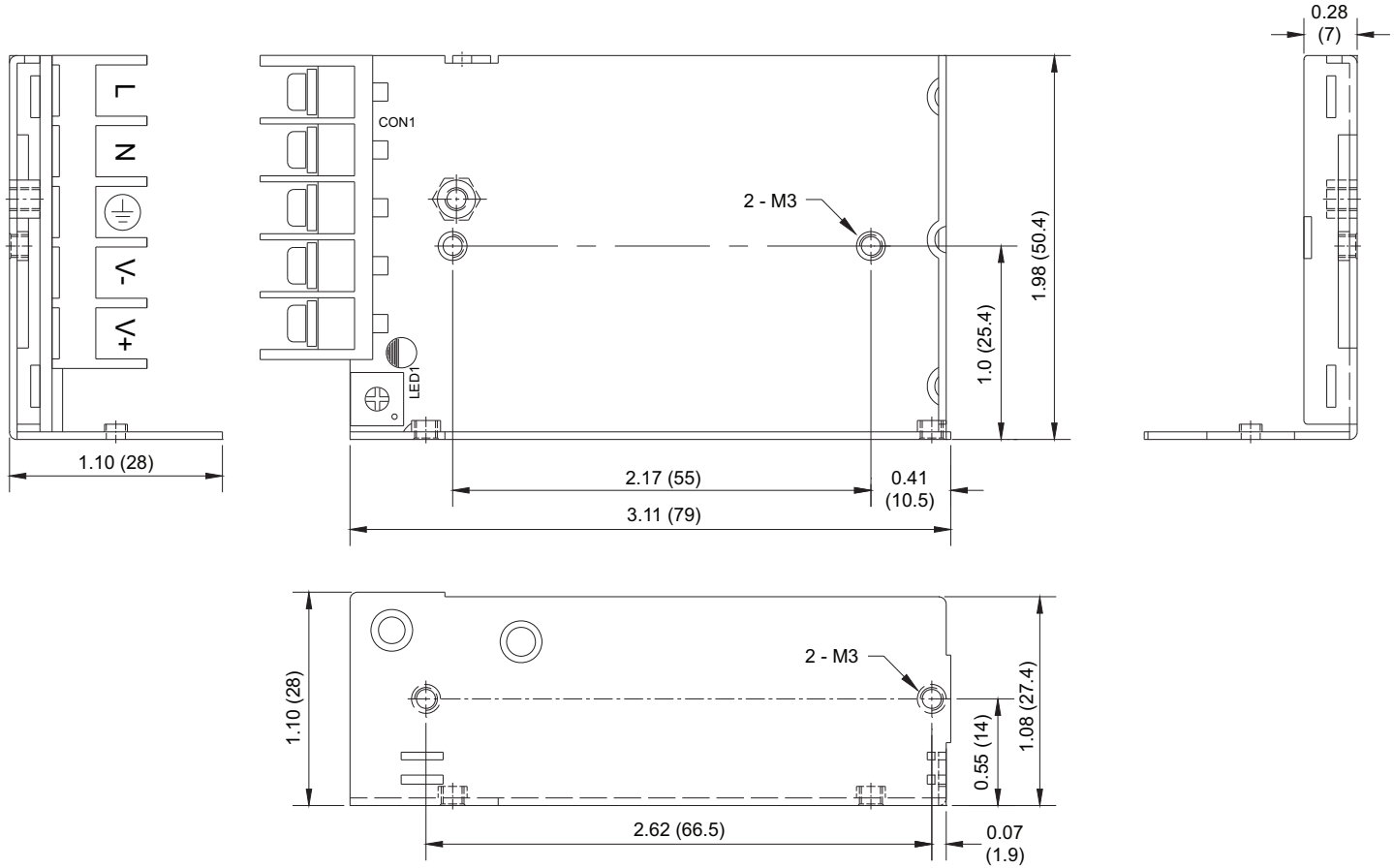


BLOCK DIAGRAM



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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