



Size: 8.92in x 4.53in x 1.97in

FEATURES

- Single Outputs
- RoHS Compliant
- Built-In Fan
- Built-In PFC Function, PF >0.95
- Universal Input Voltage Range (Full Range)
- High Efficiency and High Reliability
- All Using 105°C Long Life Electrolytic Capacitors
- PCB Soldering Side with Conformal Coating
- Up to 321.6W Output Power
- 100% Full Load Burn-In Tested
- Output Voltages Available from 3.3VDC to 48VDC
- Output Voltage Adjustability
- Wide Operating Temperature Range (-20°C to +65°C)
- Enclosed Case
- Short Circuit, Over Voltage, Over Load, and Over Temperature Protection

DESCRIPTION

The PSPDF-320 series of AC/DC switching power supplies offers up to 321.6 Watts of output power in a 8.92" x 4.53" x 1.97" enclosed case. All models have a single output and a universal input voltage range of 88~264VAC (124~370VDC). Some features include $\pm 10\%$ output adjustability, PFC > 0.93 at 230VAC, built-in fan, and a wide operating temperature range of -20°C to +65°C. These supplies also have short circuit, over load, over voltage, and over temperature protection. All models are RoHS compliant and have UL60950-1, EN60950-1:2006, CB, and CE safety approvals. These supplies are 100% full load burn-in tested.

MODEL SELECTION TABLE

Model Number	Input Voltage Range	Output Voltage	Output Current		Ripple & Noise		Output Power	Voltage Adjustment Range	Efficiency	
			Min. Load	Rated Load	0-65°C	-20-0°C			115VAC	230VAC
PSPDF-320-3.3	88~264VAC (124~370VDC)	3.3V	0A	60A	<150mV	<180mV	198W	3.1~3.6V	72%	77%
PSPDF-320-5		5VDC	0A	60A	<150mV	<180mV	300W	4.4~5.3V	73%	79%
PSPDF-320-7.5		7.5VDC	0A	40A	<150mV	<180mV	300W	6.6~8.4V	77%	83%
PSPDF-320-12		12VDC	0A	25A	<150mV	<180mV	300W	10.5~13.3V	78%	86%
PSPDF-320-24		24VDC	0A	13A	<150mV	<180mV	312W	19.7~26.4V	79%	87%
PSPDF-320-36		36VDC	0A	8.8A	<200mV	<200mV	316.8W	33.2~38.4V	80%	87%
PSPDF-320-48		48VDC	0A	6.7A	<240mV	<240mV	321.6W	41.5~53.1V	81%	88%

SPECIFICATIONS

All specifications are based on 25°C, Rated Input, and Rated Load unless otherwise noted.
We reserve the right to change specifications based on technological advances.

SPECIFICATION	TEST CONDITIONS	Min	Typ	Max	Unit
INPUT SPECIFICATIONS					
Input Voltage Range	AC Input Voltage Range	88		264	VAC
	DC Input Voltage Range	124		370	VDC
Inrush Current	At 115VAC and cold start		<30		A
	At 230VAC and cold start		<50		
Input Frequency		47		63	Hz
Power Factor	@115VAC		>0.98		
	@230VAC		>0.95		
AC Current				4.0	A
OUTPUT SPECIFICATIONS					
Output Voltage		See Table			
Voltage Accuracy	3.3V, 5V, 7.5V Output Models	-2.0		+2.0	%
	12V, 24V, 36V, 48V Output Models	-1.0		+1.0	
Line Regulation	3.3V, 5V, 7.5V Output Models	-0.5		+0.5	%
	12V Output Model	-0.3		+0.3	
Load Regulation	24V, 36V, 48V Output Models	-0.2		+0.2	%
	3.3V, 5V, 7.5V Output Models	-1.0		+1.0	
	12V, 24V, 36V, 48V Output Models	-0.5		+0.5	
Voltage Adjustment Range		See Table			
Output Power		See Table			
Output Current		See Table			
Ripple & Noise ⁽¹⁾		See Table			
Set-Up Time	115VAC Input, Full Load			2.5	S
	230VAC Input, Full Load			1.2	
Hold Up Time	3.3V, 5V Output Models, 230VAC Input, Full Load	14			mS
	7.5V, 12V, 24V, 25V, 48V Output Models, 230VAC Input, Full Load	16			
Temperature Coefficient			± 0.03		%/°C
Overshoot and Undershoot				5.0	%

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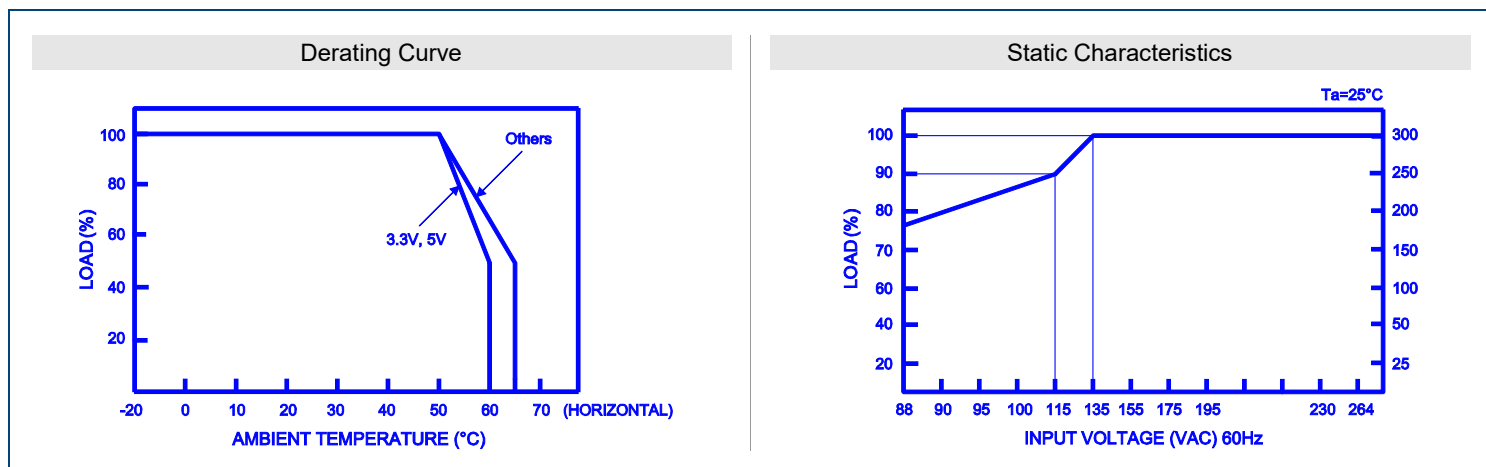
SPECIFICATION	TEST CONDITIONS	Min	Typ	Max	Unit
PROTECTION					
Short Circuit Protection	Long Term Mode	Automatic Recovery			
Over Load Protection	Hiccup Mode, Automatic Recovery	105		135	%Io
Over Voltage Protection	Shut Down	110		150	%Vo
Over Temperature Protection	Shut down, automatic recovery after temperature goes down, detect on heatsink of power transistor	85°C ± 5°C			
ENVIRONMENTAL SPECIFICATIONS					
Operating Ambient Temperature	See Derating Curve	-20		65	°C
Storage Temperature		-40		85	°
Operating Humidity	Non-Condensing	20		90	%RH
Storage Humidity	Non-Condensing	10		95	%RH
Cooling Method	Forced Air Cooling	Built-In Fan			
MTBF	25°C, Full Load	300,000			Hours
GENERAL SPECIFICATIONS					
Efficiency		See Table			
Withstand Voltage	Primary to Secondary	3.0KVac; ≤10mA			
	Primary to PG	1.5KVAC; ≤10mA			
	Secondary to PG	0.5KVAC; ≤10mA			
Isolation Resistance			≥100		MΩ
Leakage Current	Input-Output		≤0.1		mA
	Input-PG		≤0.75		
PHYSICAL SPECIFICATIONS					
Weight		Approx. 2.56lbs (1160g)			
Dimensions (L x W x H)		8.92in x 4.53in x 1.97in (226.5mm x 115mm x 50mm)			
Packing		10PCS/CTN, 11.6KGS, 0.04CBM			
SAFETY CHARACTERISTICS					
Safety Approvals	UL60950-1 ⁽⁴⁾ EN60950-1: 2006				
EMI	Compliance to EN55022				
Harmonic Current	Compliance to EN61000-3-2				
EMS Immunity ⁽²⁾	Compliance to EN61000-4-2, 3, 4, 5, 6, 8, 11: heavy industrial level				

NOTES

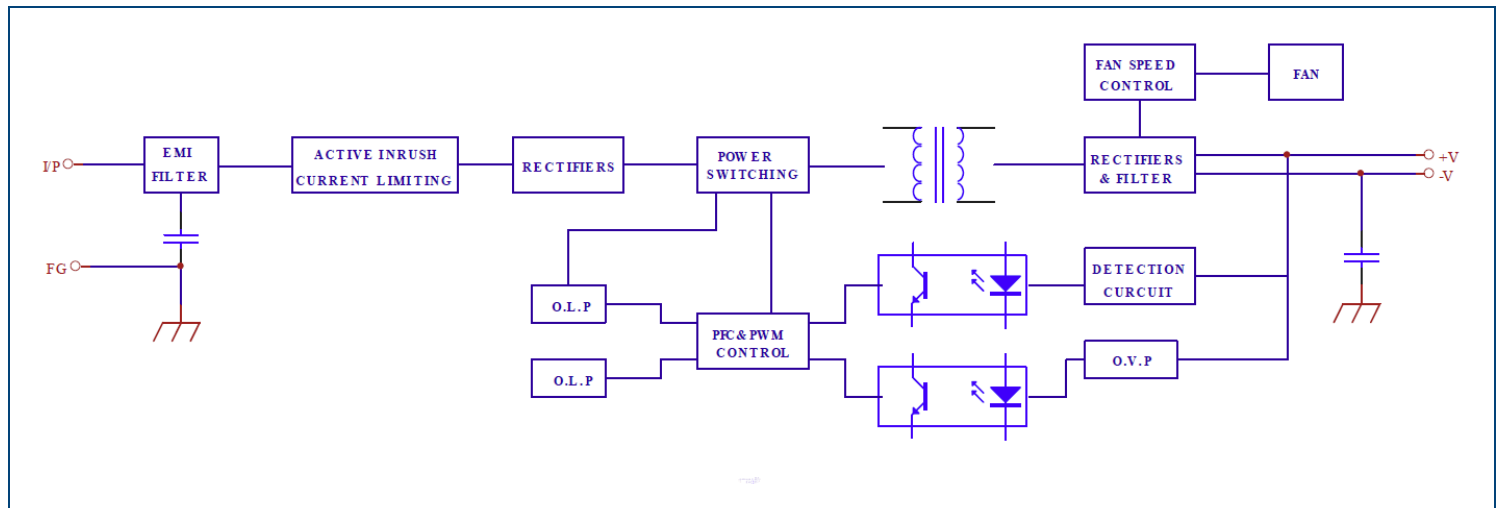
- Measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uF & 47uF parallel capacitor.
- The SPS is considered a component which will be installed into final equipment. The equipment must be re-confirmed that it still meets EMC directives.
- DIN-35 Rail Bar accessories offered. Contact factory for more information.
- This product is listed to applicable standards and requirements by UL.

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

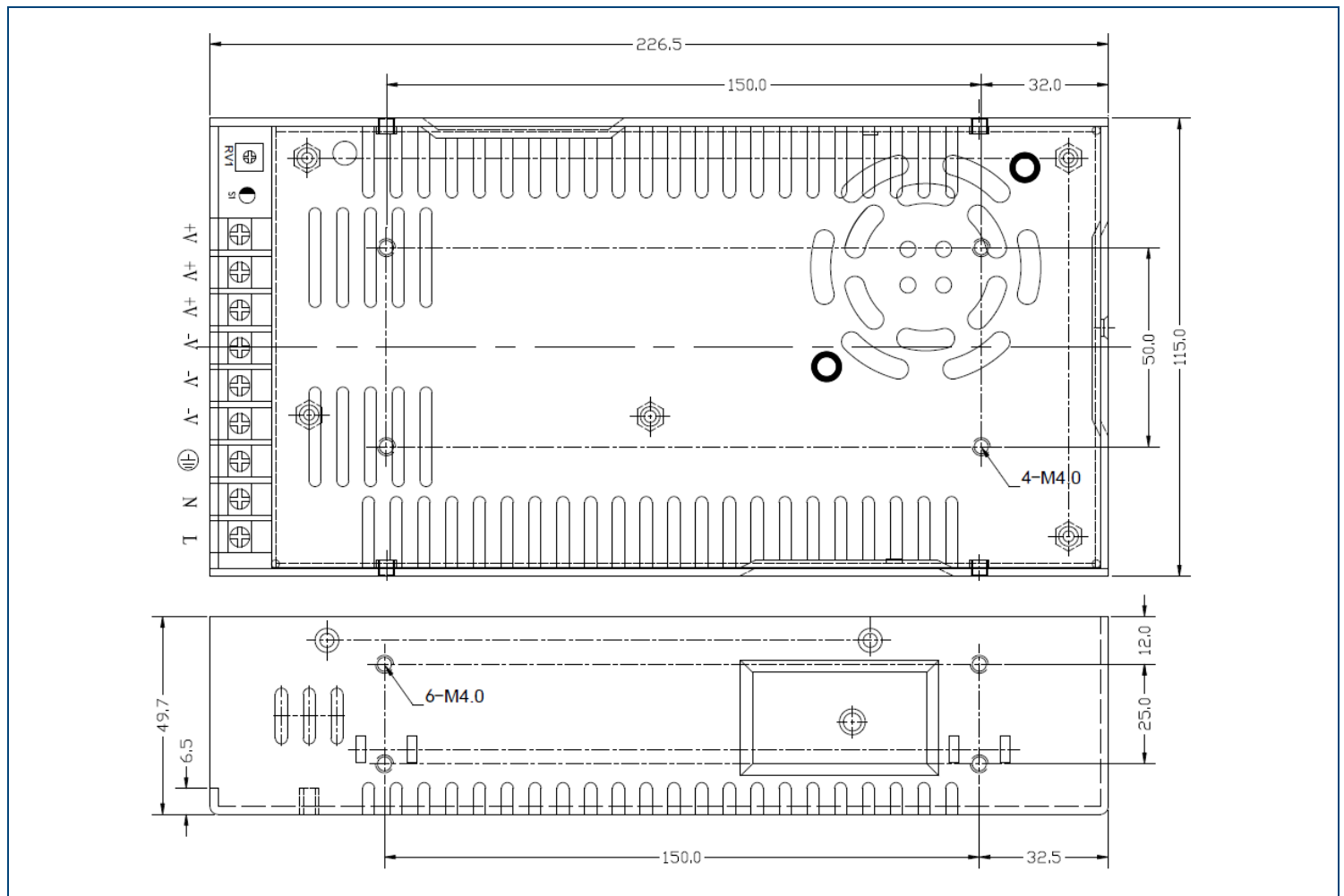
CHARACTERISTIC CURVES



BLOCK DIAGRAM



MECHANICAL DRAWINGS



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.

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