Size: 3.50in x 2.01 x 0.79in (89mm x 51mm x 20mm)

FEATURES

- Universal Input Range of 85~264VAC (120~370VDC)
- High Efficiency
- High Reliability
- Ultra-Miniature Size
- Low Profile
- 100% Full Load Burn-In Test
- Wide Operating Ambient Temperature
- All Using 105ºC Long Life Electrolytic Capacitors
- Over Load, Over Voltage, and Short Circuit Protection
- UL60950-1, and EN60950-1: 2006 Safety Approvals

DESCRIPTION

The PSPSD-20 series of AC/DC switching power supplies offers 20 Watts of output power in a 3.50” x 2.01” x 0.79” low profile open frame package. All models have a single output and a universal AC input voltage range of 85~264VAC. Some features include wide operating temperature range (-20°C to +70°C), low profile, and over load, over voltage, and short circuit protection. These supplies have UL60950-1 and EN60950-1: 2006 safety approvals and are 100% full load burn-in tested.

MODEL SELECTION TABLE

Model Number	Input Voltage Range	Output Voltage	Output Current		Ripple & Noise[1]		Voltage Adjustment Range	Output Power	Efficiency	
			Min Load	Max Load	0~60ºC	-20~0ºC			115VAC	230VAC
PSPSD-20-3.3	85~264VAC (120~370VDC)	3.3VDC	0A	4A	<50mV	<75mV	3.1~3.6V	13.2W	69%	68%
PSPSD-20-5		5VDC	0A	4A	<50mV	<75mV	4.4~5.6V	20W	76%	75%
PSPSD-20-12		12VDC	0A	1.67A	<50mV	<75mV	11.1~13.1V	20W	79%	78%
PSPSD-20-15		15VDC	0A	1.34A	<50mV	<75mV	13.7~16.1V	20W	80%	79%
PSPSD-20-24		24VDC	0A	0.84A	<50mV	<75mV	22.0~25.4V	20W	80%	79%
PSPSD-20-48		48VDC	0A	0.42A	<100mV	<100mV	45.6~50.4V	20W	80%	79%

SPECIFICATIONS

All specifications are based on 25°C Ambient Temperature, 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		85		264	VAC
		120		370	VDC
Frequency		47		63	Hz
Input Current	3.3VDC Model			0.4	A
	Other Models			0.5	
Inrush Current	115VAC, Cold Start		20		A
	230VAC, Cold Start		40		
OUTPUT SPECIFICATIONS					
Output Voltage		See Table			
Voltage Accuracy			±2.0		%
Line Regulation			±0.5		%
Load Regulation			±2.0		%
Output Power		See Table			
Output Current		See Table			
Ripple & Noise (20MHz bandwidth)		See Table			
Set-Up Time	115VAC, Full Load			2.0	S
	230VAC, Full Load			1.0	
Hold Up Time	115VAC, Full Load	10			mS
	230VAC, Full Load	20			
Temperature Coefficient			±0.03		%/ºC
Overshoot and Undershoot				5.0	%
PROTECTION					
Short Circuit Protection	Long-Term Mode	Automatic Recovery			
Over Load Protection	Hiccup Mode, Automatic Recovery	105%~150% Rated Output Power			
Over Voltage Protection	Constant Voltage	110%~140% of Rated Output Voltage			

SPECIFICATIONS

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

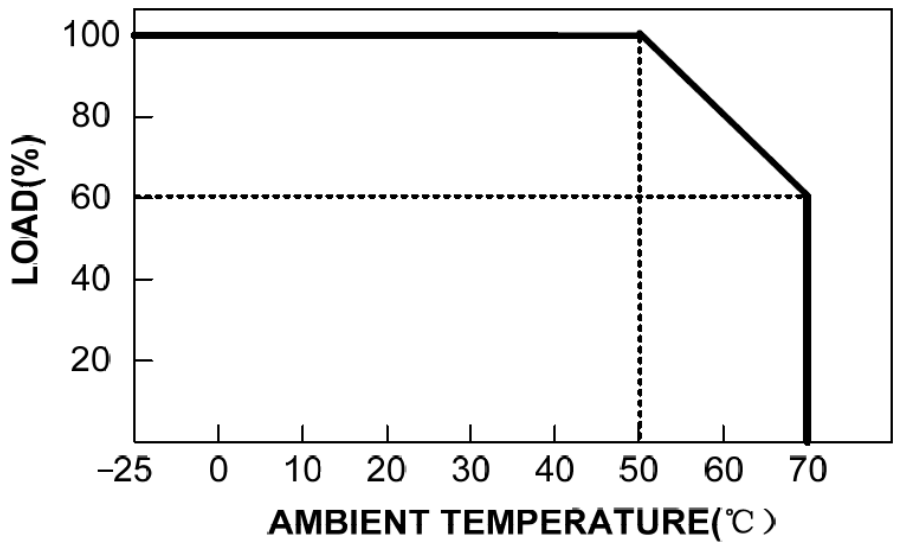
SPECIFICATION	TEST CONDITIONS	Min	Typ	Max	Unit
ENVIRONMENTAL SPECIFICATIONS					
Operating Temperature	See Derating Curve	-25		70	ºC
Storage Temperature		-40		85	ºC
Operating Humidity	Non-Condensing	20		90	%RH
Storage Humidity		10		95	%RH
Cooling		Free Air Convection			
MTBF	25ºC, Full Load, MIL-HDBK-217F	200,000			Hours
GENERAL SPECIFICATIONS					
Efficiency		See Table			
Withstand Voltage	Primary to Secondary	3000VAC; ≤10mA			
		1500VAC; ≤10mA			
		500VDC; ≤10mA			
Isolation Resistance			≥100		MΩ
Leakage Current	Input-Output			0.35	mA
	Input-PG			0.75	
PHYSICAL SPECIFICATIONS					
Weight		4.47oz (126.67g)			
Dimensions (L x W x H)		3.50in x 2.01in x 0.79in (89mm x 51mm x 20mm)			
Packing		60PCS/CTN, 7.6KGS, 0.017CBM			
SAFETY CHARACTERISTICS					
Safety Approvals	UL60950-1; EN60950-1:2006				
EMI (Conduction & Radiation)	Compliance to EN55022 (CISPR22)				Class B
Harmonic Current	Compliance to EN61000-3-2, 17625.1-2003				
EMS Immunity	Compliance to EN61000-4-2,3,4,5,6,8,11; ENV50204, Light Industry Level, Criteria A				

NOTES

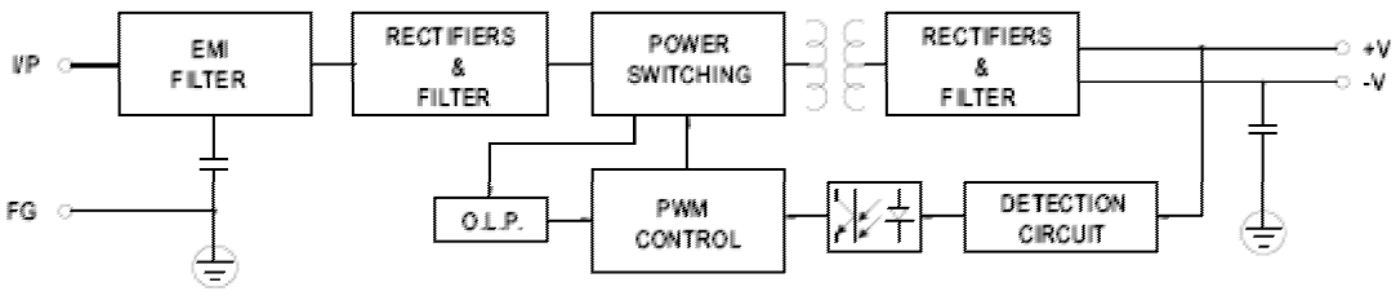
1. Ripple & Noise measured at 20MHz of bandwidth y using a 12” twisted pair-wire terminated with a 0.1uF & 47uF parallel capacitor.
2. Power supply is a component that will be installed into final equipment. The final equipment must be re-confirmed that it still meets EMC directives.

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

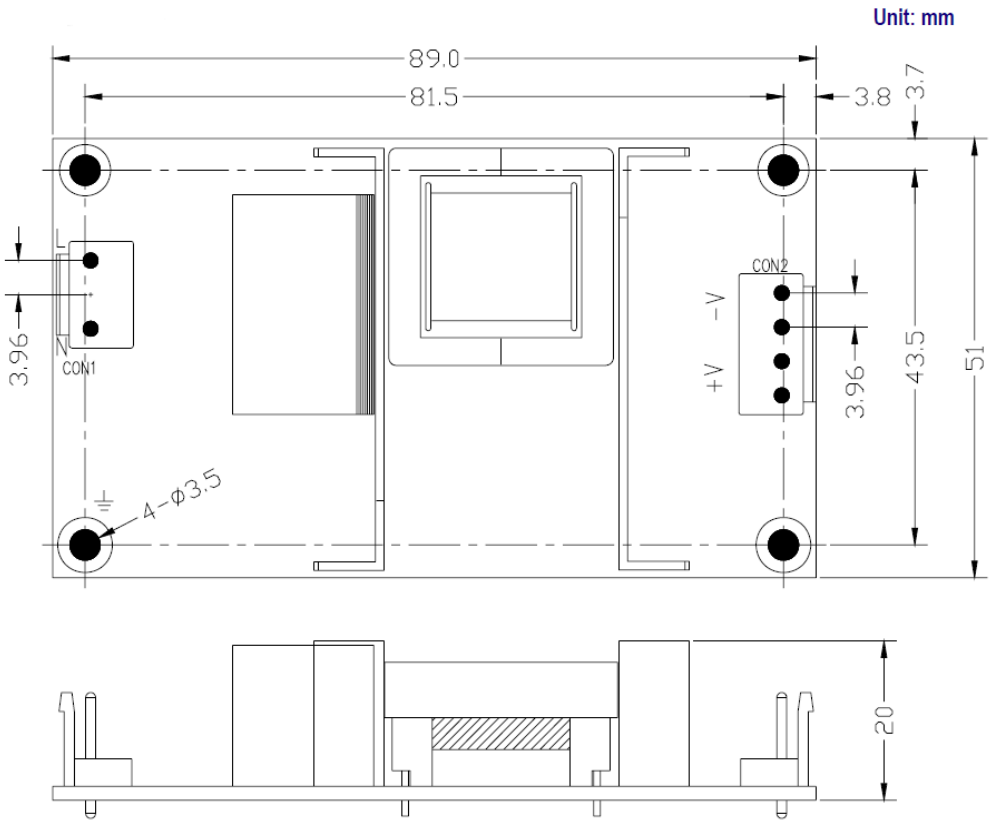
DERATING CURVES



BLOCK DIAGRAM



MECHANICAL DRAWINGS



Item	Connectors	Mating Housing	Contacts
AC IN (CON1)	LANDWIN3961P0300T (Central Pin Removed)	LANDWIN 3960S or JST VHR or Molex 51144	LANDWIN 3963T011R or JST SVH-21T-P1.1 or Molex 505039
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 ISO9001-2008 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.

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