



Size: 5.08in x 3.87in x 1.48in
(129mm x 98.3mm x 37.6mm)

FEATURES

- Universal Input Range of 90~264VAC
- Built-In Active PFC Function
- High Power Density
- High Efficiency and Reliability
- Easy Assembly from Top Side
- PCB Soldering Side with Conformal Coating
- Withstand 300VAC Surge Input for 5 Sec.
- Over Load, Over Power, and Short Circuit Protection
- 105°C Long Life Electrolytic Capacitors
- 100% Full Load Burn-In Test
- UL60950-1 2nd Edition, IEC 60950-1:2005 (2nd Edition), and EN60950-1:2006 Safety approvals

DESCRIPTION

The PSMPF100 series of AC/DC power supplies offers up to 100 watts of output power in a miniature 5.08" x 3.87" x 1.48" package. This series consists of single output models with a universal input range of 90~264VAC. Each model features 105°C long life electrolytic capacitors, high power density, efficiency and reliability, and built-in active PFC function. The PSMPF100 series is also protected against over load, over power, and short circuit conditions, has 100% full load burn-in test, and has UL60950-1 2nd Edition, IEC 60950-1:2005 (2nd Edition), and EN60950-1:2006 safety approvals.

MODEL SELECTION TABLE

Model Number	Input Voltage Range	Output Voltage	Voltage Adjustment Range	Output Current		Ripple & Noise		Efficiency	Output Power
				Min Load	Max Load	0~70°C	-20~0°C		
PSMPF100-5S	90~264VAC	5V	3.3~5.5V	0A	20A	≤150mV	≤150mV	≥84%	100W
PSMPF100-12S		12V	10~15V	0A	8.5A	≤150mV	≤150mV	≥87%	
PSMPF100-15S		15V	10~15.15V	0A	7A	≤150mV	≤150mV	≥87%	
PSMPF100-24S		24V	21~27V	0A	4.2A	≤150mV	≤150mV	≥88%	
PSMPF100-48S		48V	43.2~52.8V	0A	2.2A	≤150mV	≤200mV	≥88%	

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		90		264	VAC
Frequency Range		47		63	Hz
AC Current				1.5	A
Inrush Current	@115VAC, Cold Start		<30		A
	@230VAC, Cold Start		<50		
Power Factor	@115VAC	0.98			
	@230VAC	0.93			
OUTPUT SPECIFICATIONS					
Output Voltage			See Table		
Voltage Accuracy	5~15V Models		±2.0		%
	24~48V Models		±1.0		
Line Regulation			±0.5		%
Load Regulation	5~15V Models		±2.0		%
	24~48V Models		±1.0		
Output Power			See Table		
Output Current			See Table		
Ripple & Noise (20MHz bandwidth)			See Table		
Overshoot and Undershoot				5.0	%
Set-Up Time	@115VAC		≤4		S
	@230VAC		≤2		
Hold Up Time	230VAC Input, Full Load		≥12		mS
Temperature Coefficient			±0.03		%/°C
PROTECTION					
Short Circuit Protection	Long Term Mode		Automatic Recovery		
Over Load Protection	% of Rated Output Current, Hiccup Mode, Automatic Recovery	110		150	%
Over Power Protection	% of Rated Output Current, Hiccup Mode, Automatic Recovery	110		150	%

SPECIFICATIONS

All specifications are based on 25°C Ambient Temperature, Rated Input, and Rated Load unless otherwise noted.
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SPECIFICATION	TEST CONDITIONS	Min	Typ	Max	Unit
ENVIRONMENTAL SPECIFICATIONS					
Operating Temperature		-20		60	°C
Storage Temperature		-30		85	°C
Operating Humidity	Non-Condensing (See Derating Curve)	20		90	%RH
Storage Humidity	Non-Condensing	10		95	%RH
MTBF	MIL-HDBK-217F, 25°C, Full Load	200,000			Hours
GENERAL SPECIFICATIONS					
Typical Efficiency	230VAC Input	See Table			
Withstand Voltage	Primary-Secondary	3.0KVac; ≤10mA			
	Primary-PG	1.5KVac; ≤10mA			
	Secondary-PG	0.5KVDC; ≤10mA			
Isolation Resistance			100		MΩ
Leakage Current	Input-Output		≤0.25		mA
	Input-PG		≤3.5		
PHYSICAL SPECIFICATIONS					
Weight		17.14oz (486g)			
Dimensions (L x W x H)		5.08in x 3.87in x 1.48in (129mm x 98.3mm x 37.6mm)			
Cooling Method		Cooling by Free Air Convection			
Packing		30pcs/CTN, 14.6KGs, 0.04CBM			
SAFETY CHARACTERISTICS⁽²⁾					
Safety Approvals		UL60950-1 2 nd Edition ⁽⁴⁾ IEC 60950-1: 2005 2 nd Edition EN60950-1:2002			
EMS Emission		Compliance to EN55022			
Harmonic Current		Compliance to EN61000-3-2			
EMC Immunity		Compliance to EN61000-4-2,3,4,5,6,8,11; heavy industrial level			

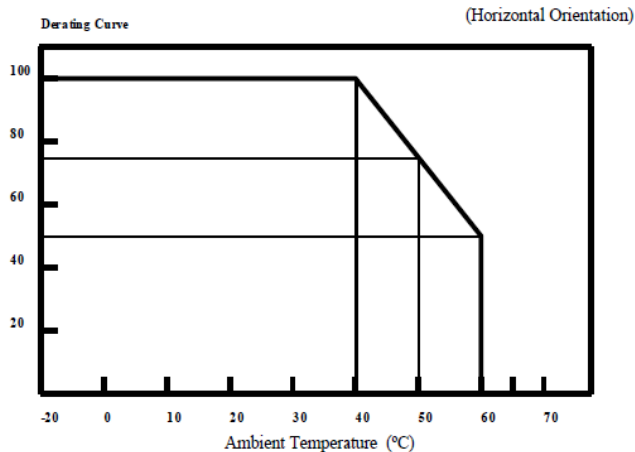
NOTES

1. Measured at 20MHz Bandwidth
2. This is considered a component that will be installed into final equipment. Equipment must be re-confirmed that it meets EMC directives.
3. Accessories for DIN-24 Rail Bar available. Contact factory for more information.
4. This product is Listed to applicable standards and requirements by UL.

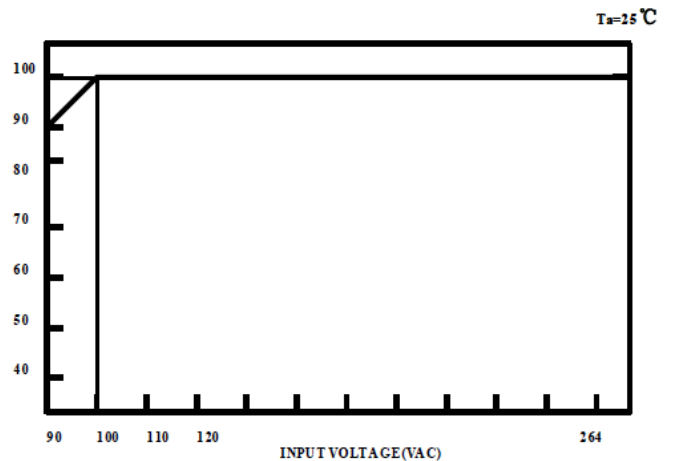
**Due to advances in technology, specifications subject to change without notice.*

CHARACTERISTIC CURVES

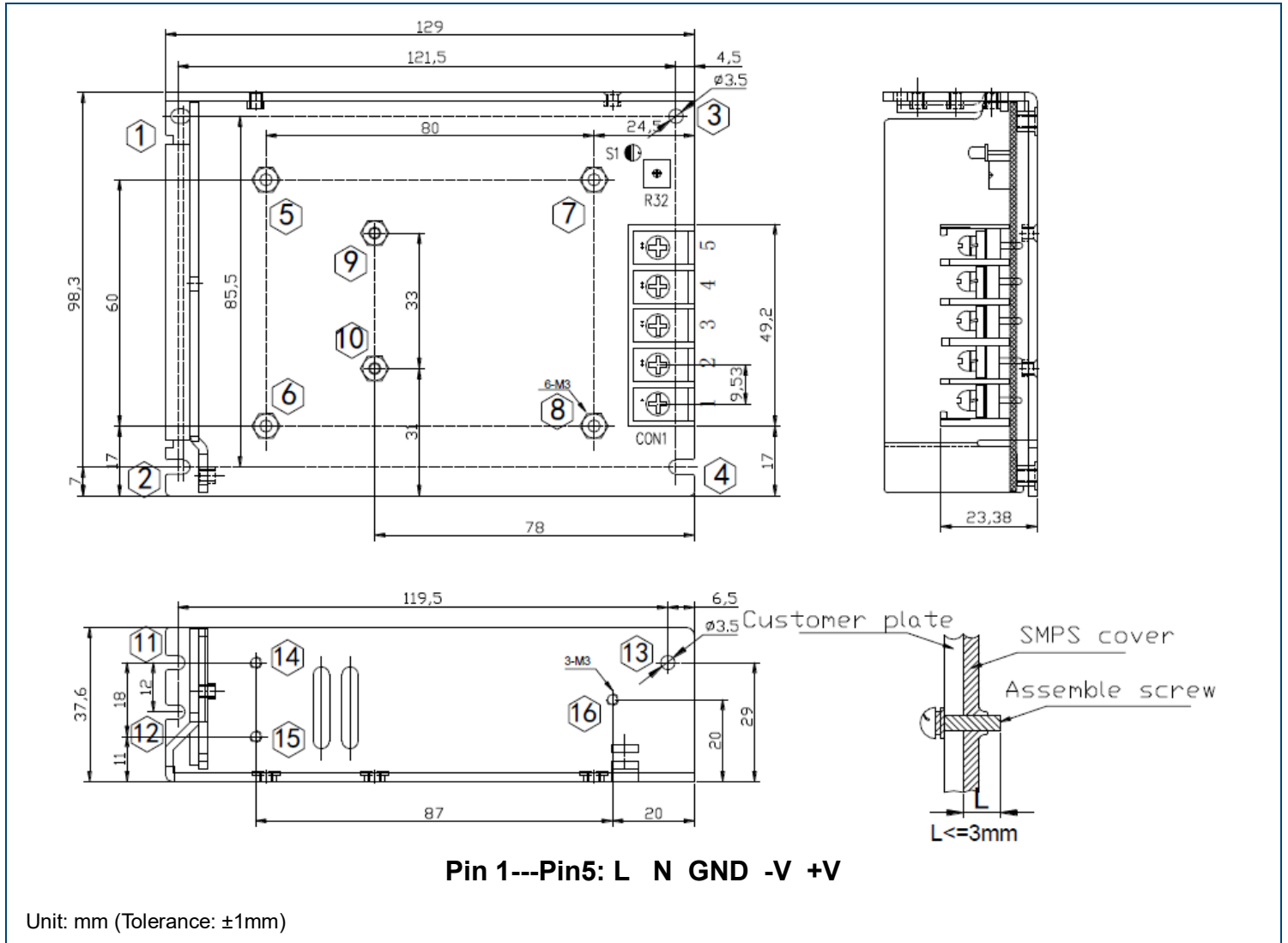
Load Ambient Temperature Derating Curve



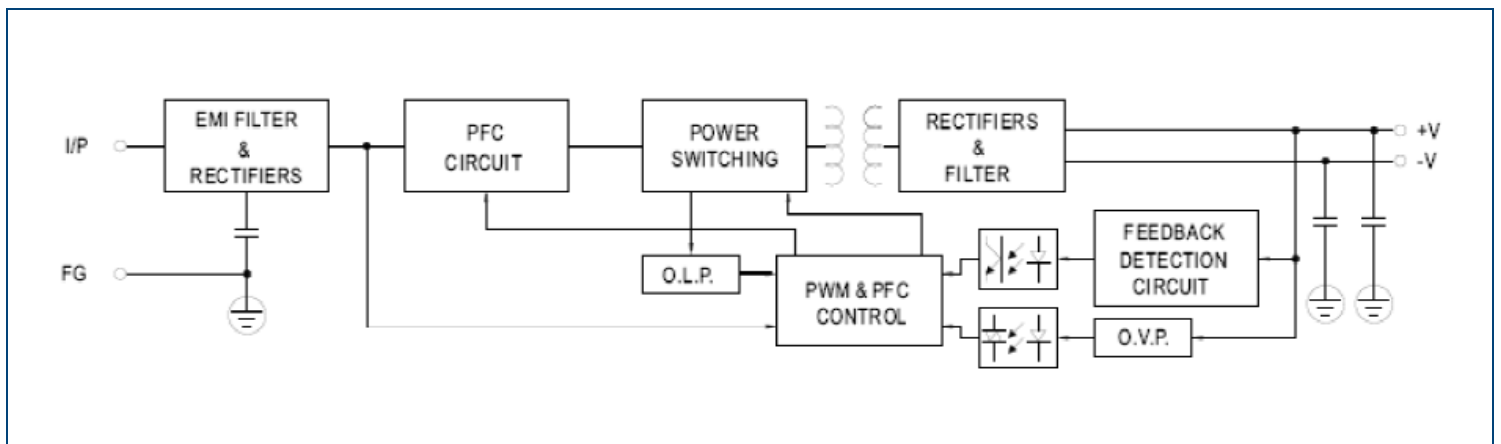
Input Voltage Load Derating Curve



MECHANICAL DRAWINGS



BLOCK DIAGRAM



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.

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