

Wall Industries, Inc.

PSHF150W-SMF SERIES

88~132 / 170~264VAC Input Selectable by Switch
Up to 156 Watts Output Power
5, 7.5, 9, 12, 24, 27, & 36VDC Single Outputs
AC/DC Switching Power Supplies



FEATURES

- RoHS Compliant
- $\pm 10\%$ Voltage Adjustment Range
- Free Air Convection
- 85~132/170~264VAC Input Selectable by Switch
- Short Circuit, Over Load, and Over Voltage Protection
- High Power Density
- Single Outputs
- Electrolytic Capacitors all 105°C
- 7.83" x 3.86" x 1.54" Enclosed Case
- Up to 156W Output Power
- 100% Full Load Burn-in Test
- UL60950, EN60950, GB4943, and CE Approvals

DESCRIPTION

The PSHF150W-SMF series of AC/DC power supplies offers up to 156W of output power in a 7.83" x 3.86" x 1.54" enclosed case. This series consists of 5, 12, 13.5, 15, 24, and 48VDC single output models with an input voltage range of 85~132/170~264VAC selectable by switch. These supplies have a $\pm 10\%$ output adjustment range and are protected against short circuit, over load, and over voltage conditions. This series is RoHS compliant and has UL60950, EN60950, GB4943, and CE approvals.

SPECIFICATIONS: PSHF150W-SMF 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.

SPECIFICATION	TEST CONDITIONS	Min	Nom	Max	Unit
INPUT SPECIFICATIONS					
Input Voltage Range	Selected by switch	85~132 / 170~264VAC			
Input Current	V _{in} = 115VAC		3.5		A
	V _{in} = 230VAC		1.8		
Inrush Current	V _{in} = 115VAC	Cold start	20		A
	V _{in} = 230VAC		40		
Input Leakage Current	V _{in} = 230VAC			1	mA
Input Frequency		47		63	Hz
OUTPUT SPECIFICATIONS					
Output Voltage		See Table			
Voltage Adjustment Range		-10		+10	%
Voltage Tolerance	5VDC output model	-2		+2	%
	Others	-1		+1	
Line Regulation	Low line to high line at full load	-0.5		+0.5	%
Load Regulation	0% to 100% of rated load		0.5		%
Output Current		See Table			
Output Power		See Table			
Ripple & Noise	See Note 1	See Table			
Rise Time	Full load		50		ms
Hold-up Time	Full load		20		ms
PROTECTION					
Over Load Protection	Shut off, re-power on to recover	110		130	%
Over Voltage Protection	Shut off, re-power on to recover	115		150	%
Short Circuit Protection		Shut off, re-power on to recover			
GENERAL SPECIFICATIONS					
Efficiency		See Table			
Withstand Voltage	Input to Output	All for 1 minute	3000		VAC
	Input to PE		1500		
	Output to PE		500		
ENVIRONMENTAL SPECIFICATIONS					
Operating Temperature	See derating curve	-20		+70	°C
Operating Humidity	non-condensing	20		93	% RH
Storage Temperature		-20		+85	°C
Storage Humidity	non-condensing	20		95	% RH
Vibration	10~150Hz, 2G 10 min/1 cycle, 30 min each along X, Y, Z axes				
Cooling	Free air convection				
MTBF	> 100,000 hours				
PHYSICAL SPECIFICATIONS					
Weight	1.5 lbs (660g)				
Dimensions (L x W x H)	7.83 x 3.86 x 1.54 inches (199 x 98 x 39 mm)				
SAFETY & EMC CHARACTERISTICS					
Safety Standards	UL60950 ⁽³⁾ , EN60950, GB4943				
EMC Standards	GB9254, EN55022 Class B, EN55024, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11				

MODEL SELECTION TABLE

Model Number	Input Voltage Range	Output Voltage	Output Current	Ripple & Noise ⁽¹⁾	Output Power	Efficiency
PSHF150W-SMF-5	85~132 / 170~264 VAC (selectable by switch)	5 VDC	25.0 A	100mVp-p	125W	80%
PSHF150W-SMF-12		12 VDC	12.5 A	120mVp-p	150W	84%
PSHF150W-SMF-13.5		13.5 VDC	11.1 A	120mVp-p	150W	84%
PSHF150W-SMF-15		15 VDC	10.0 A	120mVp-p	150W	84%
PSHF150W-SMF-24		24 VDC	6.5 A	150mVp-p	156W	85%
PSHF150W-SMF-48		48 VDC	3.1 A	150mVp-p	149W	87%

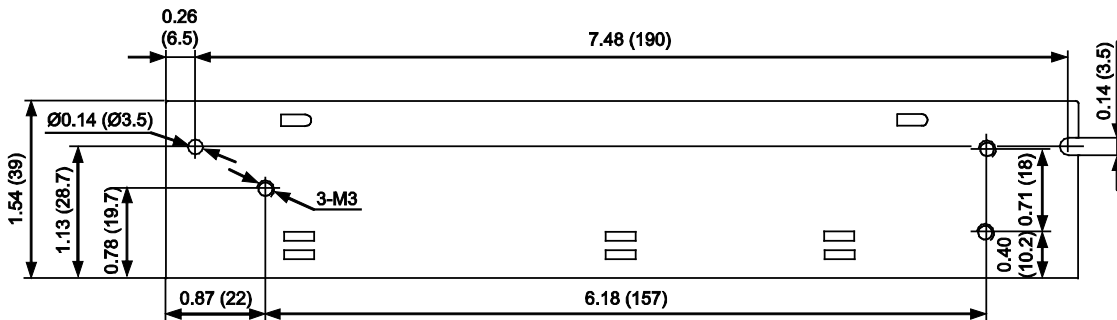
NOTES

1. Ripple & noise is measured at 20MHz using a 12" twisted pair-wire terminated with 0.1μF and 47μF capacitors in parallel.
2. The power supply is considered a component which will be installed into final equipment. The final equipment must be re-confirmed that it still meets EMC directives.
3. This product is Listed to applicable standards and requirements by UL.

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

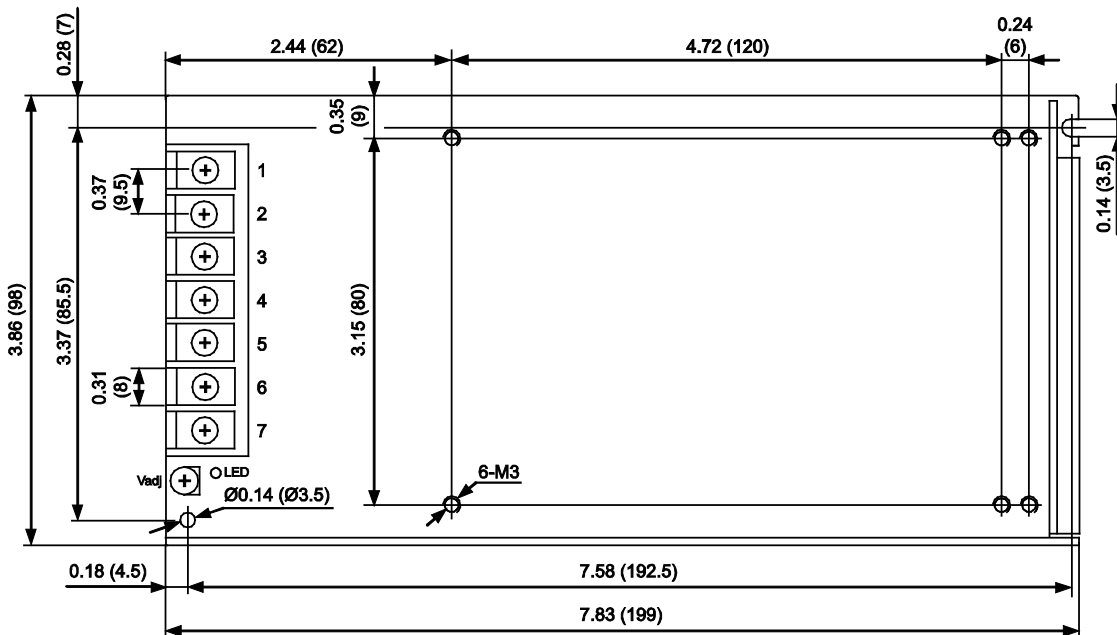
MECHANICAL DRAWING

Unit: inches (mm)

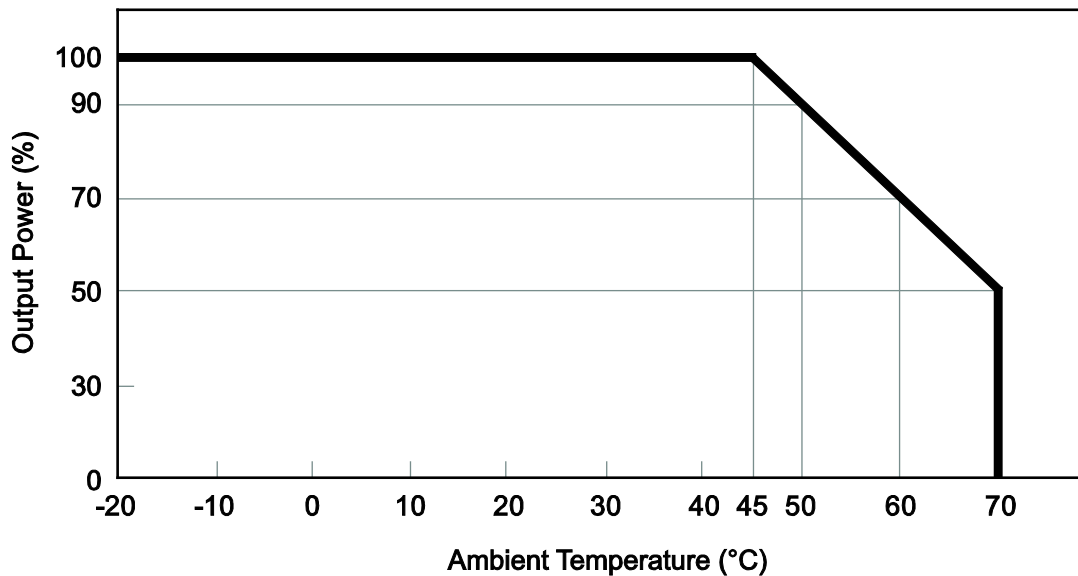


Pin	Assignment
1	AC/L
2	AC/N
3	PE
4,5	DC Output (-V)
6,7	DC Output (+V)

Length of assembly screw: 6mm max.



DERATING CURVE



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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