



Size: 8.66in x 2.44in x 1.22in
(220mm x 62mm x 31mm)

FEATURES

- Universal 85-305VAC or 120~430VDC Input
- Accepts AC or DC Input (Dual-Use of Same Terminal)
- Semi-Potted Process, Fanless Design
- High I/O Isolation Test Voltage up to 4000VAC
- Ultra-Narrow Package
- Output Short Circuit, Over Current, Over Voltage, and Over Temperature Protection
- Low Standby Power Consumption
- 150% Peak Load Output for 1 Second
- High Efficiency
- Active PFC
- UL62368-1, GB4943.1, EN62368-1, and BS EN62368-1 Safety Approvals

APPLICATIONS

- Industrial
- Lighting
- Security
- Telecommunications
- Smart Home

DESCRIPTION

The PSEH350 series of AC/DC switching power supplies offers up to 351 watts of output power in an enclosed 8.66" x 2.44" x 1.22" ultra-slim package. This series consists of single output models with an input voltage range of 85~305VAC or 120~430VAC as this series accepts AC or DC input. Each model features built-in active PFC function, high isolation test voltage, and fanless design. This series has short circuit, over current, over voltage, and over temperature protection, and also has UL62368-1, GB4943.1, EN62368-1, and BS EN62368-safety approvals.

MODEL SELECTION TABLE

Model Number ⁽¹⁾	Input Voltage Range	Output Voltage	Output Current	Output Voltage Adjustable Range	Max. Ripple & Noise	Output Power	Maximum Capacitive Load		Efficiency
							Room Temperature	Low Temperature	
PSEH350-05S	85-305VAC (120-430VDC)	5V	60A	4.5-5.5V	200mV	300W	12000µF	6000µF	90%
PSEH350-12S		12V	29.2A	11.4 - 12.6V	200mV	350.4W	10000µF	4000µF	92%
PSEH350-24S		24V	14.6A	22.8 - 25.2V	240mV	350.4W	8000µF	3000µF	94%
PSEH350-36S		36V	9.75A	34.2-37.8V	240mV	351W	6000µF	2000µF	94%
PSEH350-48S		48V	7.32A	45.6 - 50.4V	240mV	350.4W	4000µF	1000µF	94%

SPECIFICATIONS

All specifications are based on 25°C, Humidity <75%RH, Nominal Input Voltage, and Rated Output 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		85		305	VAC
	DC Input		120		430	VDC
Input Voltage Frequency			47		63	Hz
Input Current	115VAC				4	A
	230VAC				2	
Inrush Current	Cold Start	115VAC		30		A
		230VAC		60		
Power Factor	Full Load	115VAC	0.98			
		230VAC	0.98			
Leakage Current	240VAC				0.5	mA
Hot Plug					Unavailable	
OUTPUT SPECIFICATIONS						
Output Voltage				See Table		
Voltage Accuracy	Full Load Range	5V		±2.0		%
		12V/24V/36V/48V		±1.0		
Line Regulation	Rated Load	5V		±0.5		%
		12V/24V/36V/48V		±0.3		
Load Regulation	0% - 100% load	5V		±1		%
		12V/24V/36V/48V		±0.5		
Output Voltage Adjustable Range				See Table		
Output Power				See Table		
Output Current				See Table		
Minimum Load			0			%
Maximum Capacitive Load				See Table		
Ripple & Noise ⁽³⁾	20MHz bandwidth (peak-to-peak value), 25°C	5V/12V			200	mV
		24V/36V/48V			240	
Hold-Up Time	Room temperature, Full Load, 115VAC/230VAC			12		ms

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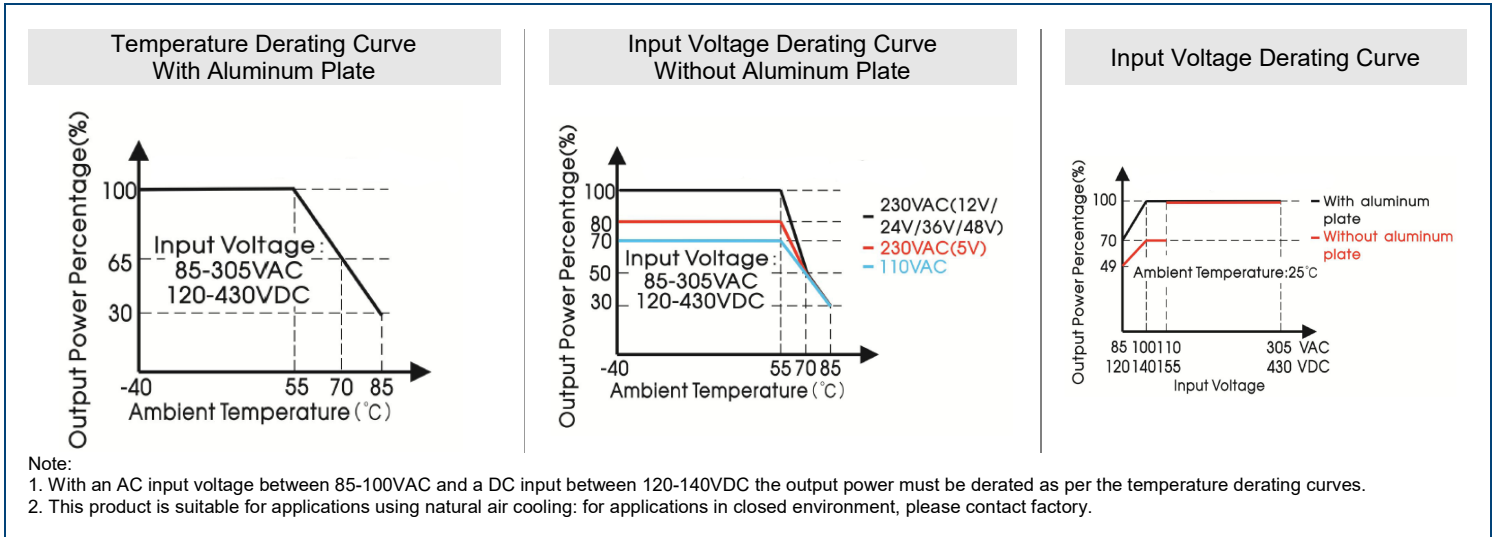
SPECIFICATION	TEST CONDITIONS		Min	Typ	Max	Unit	
PROTECTION							
Short Circuit Protection			Hiccup, Continuous, Self-Recovery				
Over Current Protection	Delay protection, delay time 1s, self-recovery after the abnormality is removed	Room Temperature, High Temperature	110%-200% I _o				
		Low Temperature	≥110%I _o				
Over-voltage Protection	Output Voltage Hiccup	5V		≤6.5		V	
		12V		≤15.6			
		24V		≤31.6			
		36V		≤46.8			
		48V		≤62.4			
Over Temperature Protection	Output voltage turn-off, self-recover after the temperature drops						
ENVIRONMENTAL SPECIFICATIONS							
Operating Temperature			-40		+85	°C	
Storage Temperature			-40		+85	°C	
Storage Humidity	Non-Condensing		10		95	%RH	
Power Derating	Operating Temperature Derating	With aluminum plate ⁽⁴⁾	+55°C to +85°C	2.5		%°C	
			+55°C to +70°C	3.33			
		Without aluminum plate	Others	+70°C to +85°C	1.33		
				5V	+55°C to +70°C		2
			+70°C to +85°C	1.33			
		100VAC	+55°C to +85°C	1.33			
	Input Voltage Derating	80VAC-100VAC	2		%/VAC		
MTBF	MIL-HDBK-217F@25°C		≥300,000			H	
GENERAL SPECIFICATIONS							
Efficiency	@230VAC		See Table				
Isolation Test	Electric Strength Test for 1min., leakage current <5mA	Input - ⚡	2000			VAC	
		Input – Output	4000				
		Output - ⚡	1500				
Insulation Resistance	500VDC	Input - ⚡	50			MΩ	
		Input – Output	50				
		Output - ⚡	50				
PHYSICAL SPECIFICATIONS							
Weight			1.5lbs (0.68kg)				
Dimensions (L x W x H)			8.66in x 2.44in x 1.22in (220mm x 62mm x 31mm)				
Case Material			Metal (AL6063, SGCC)				
Cooling			Free Air Convection				
SAFETY CHARACTERISTICS							
Safety Standard ⁽⁴⁾			UL62368-1, GB4943.1, EN62368-1, BS EN62368-1 (Report) Design Refers to EN61558-1, EN60335-1				
Safety Class			Class I				
Emissions	CE	CISPR32/EN55032			Class B		
	RE	CISPR32/EN55032			Class B		
	Harmonic Current	IEC/EN61000-3-2			Class A		
	Voltage Flicker	IEC/EN61000-3-3					
Immunity	ESD	IEC/EN 61000-4-2	Contact ±6KV/ Air ±8KV			Perf. Criteria A	
	RS	IEC/EN 61000-4-3	10V/m			Perf. Criteria A	
	EFT	IEC/EN 61000-4-4	±KV			Perf. Criteria A	
	Surge	IEC/EN 61000-4-5	Line to Line ±2KV/ Line to Ground ±4KV			Perf. Criteria A	
	CS	IEC/EN 61000-4-6	10 Vr.m.s			Perf. Criteria A	
	Voltage dips, short interruptions, and voltage variations immunity	IEC/EN 61000-4-11	0%, 70%			Perf. Criteria B	
	Intercom Interference Test	MS-SOP-DQC-007				Perf. Criteria B	

NOTES

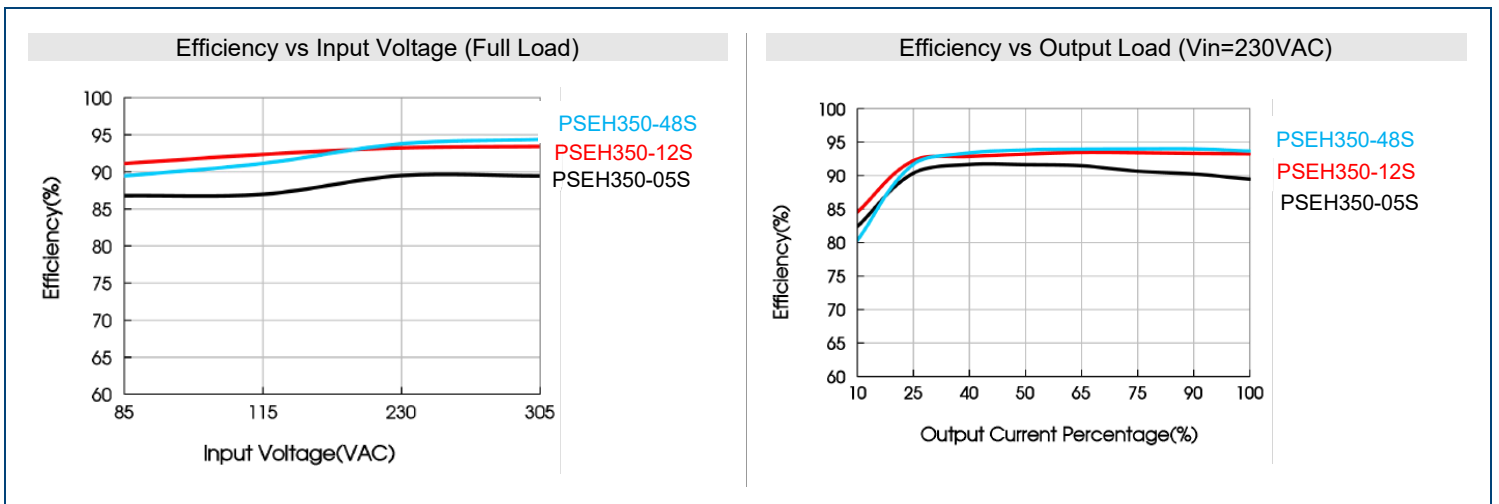
- For 12V & 24V Output, add "Y" to model number to indicate a product with optional salt-spray proof at terminal.
- Under any conditions, the total power of the product should not exceed the rated output power and the output current should not exceed the rated output current
- Tip and barrel method is used for ripple and noise test. Output parallel 47uF electrolytic capacitor and 0.1uF ceramic capacitor, contact factory for more information.
- In order to optimize the heat dissipation performance when the aluminum plate is used for auxiliary heat dissipation. Please note:
 - the size of the aluminum plate is 450mm x 450mm x3mm.
 - The surface of the aluminum plate must be coated with thermal grease.
 - The product must be tightly attached to the aluminum plate.
- This product is Listed to applicable standards and requirements by UL.
- The room temperature derating of 5°C/1000m is needed for operating altitude greater than 2000m.
- In order to improve the efficiency at high input voltage, there will be audible noise generated, but does not affect product performance and reliability.
- Product customization service is available, please contact factory for more details.
- Out case needs to be connected to PE (≡) of system when terminal equipment is operating.
- Output voltage can be adjusted b the ADJ. clockwise to decrease.
- Products should be classified according to ISO14001 and related environmental laws and regulations and should be handled by qualified units.
- Power supply is considered a component which will be installed into terminal equipment. All EMC tests should be confirmed with final equipment.

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

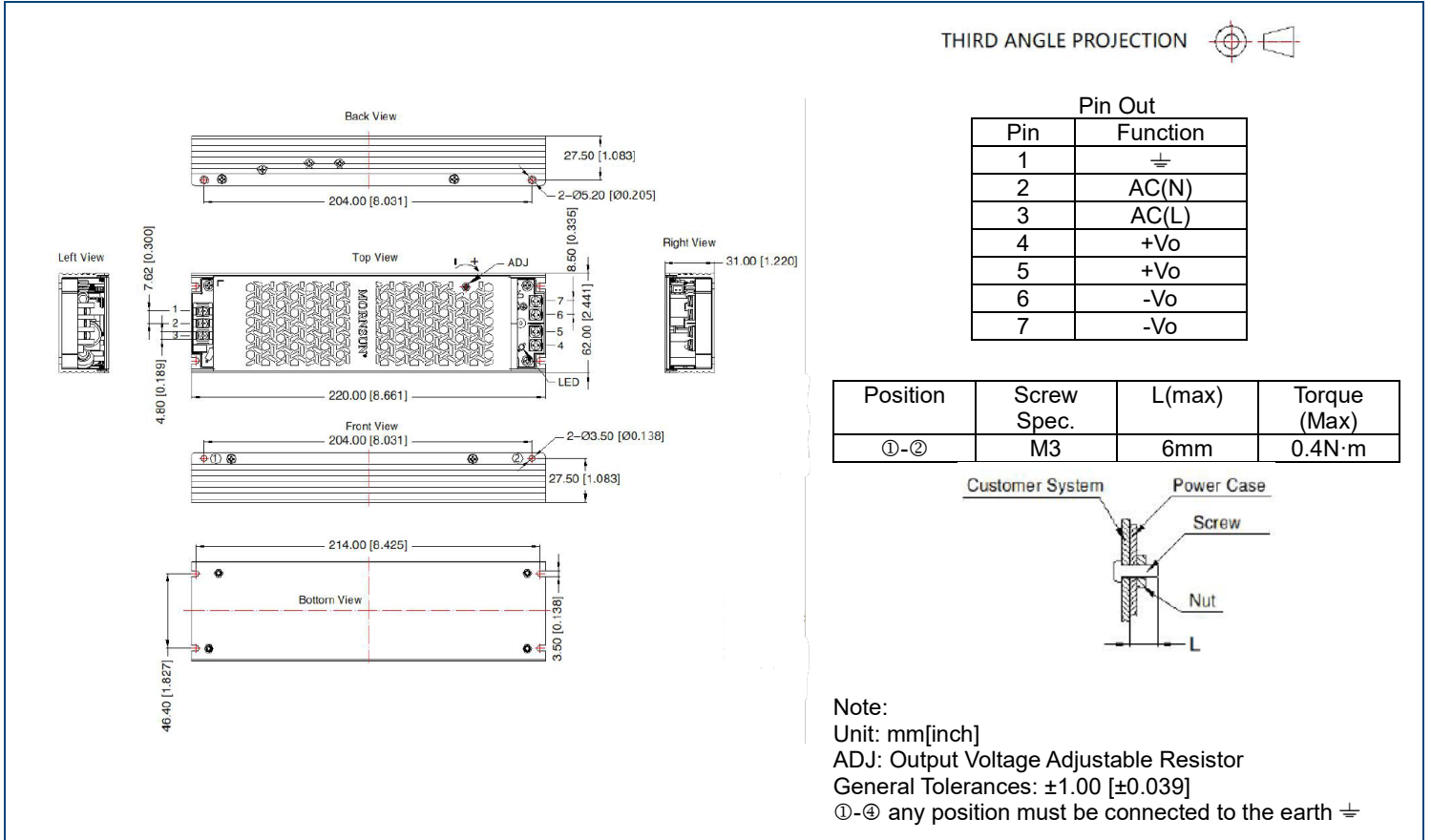
DERATING CURVES



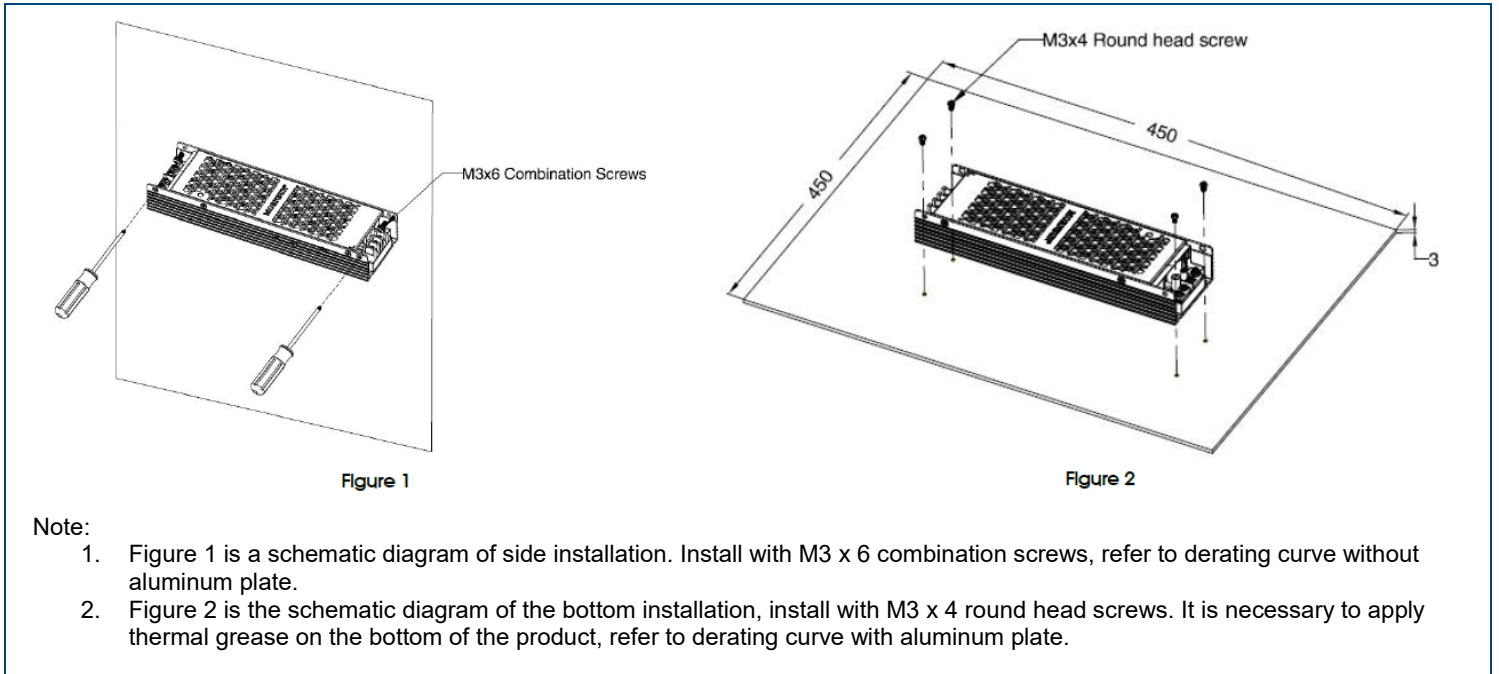
EFFICIENCY GRAPHS



MECHANICAL DRAWINGS



INSTALLATION 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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