

Size: 5in x 3in x 1.5"
(127mm x 76.2mm x 38.1mm)

FEATURES

- Input Range of 85-264VAC
- ITE & Medical Safety Standards
- Fan Speed Control
- High Efficiency
- Power Good Signal
- 5V Standby + Remote ON/OFF
- 330W Convection Cooled, 600W Fan Cooled, 700W Peak Power
- Class I (Meets Class II)
- Short Circuit, Over Load, Over Temperature, and Over Voltage Protection
- IEC 62368-1 Edition 2.0, IEC 62368-1 Edition 3.0, IEC 60601-1 Edition 3.1, IEC 60601-1 Edition 3.2, EN 62368-1, EN60601-1, UL62368-1, CAN/CSA-C22.2 NO.62368-1, CAN/CSA-C22.2 NO. 60601-1, ANSI/AAMI ES60601-1 Safety Approvals

DESCRIPTION

The PSMWC600 series of AC/DC power supplies offers 600 watts of output power in a 5" x 3" x 1.5" open frame package. This series consists of single output models with an input voltage range of 85-264VAC. This series rated for ITE and medical applications and has IEC 62368-1 Edition 2.0, IEC 62368-1 Edition 3.0, IEC 60601-1 Edition 3.1, IEC 60601-1 Edition 3.2, EN 62368-1, EN60601-1, UL62368-1, CAN/CSA-C22.2 NO.62368-1, CAN/CSA-C22.2 NO. 60601-1, and ANSI/AAMI ES60601-1 safety approvals.

MODEL SELECTION TABLE

Model Number	Input Voltage Range	Output Voltage			Rated Output Current				Output Power	Efficiency	Ripple Noise	Max. No Load Consumption (Remote OFF)
		Vo	Standby	Fan	Free Air (Typ.)	Forced Air ⁽¹⁾	Standby ⁽²⁾	Fan				
PSMWC600-12S05	85~264VAC	12VDC	5VDC	12VDC	25A	50A	2A	0.5A	600W	92%	120mV	0.21W
PSMWC600-19S05		19VDC	5VDC	12VDC	15.78A	31.5A	2A	0.5A	600W	92%	190mV	
PSMWC600-24S05		24VDC	5VDC	12VDC	12.5A	25A	2A	0.5A	600W	93%	240mV	
PSMWC600-48S05		48VDC	5VDC	12VDC	6.25A	12.5A	2A	0.5A	600W	94%	480mV	

SPECIFICATIONS

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	Typ	Max	Unit
INPUT SPECIFICATIONS							
Input Voltage	Nominal Input Voltage			100		240	VAC
	Derate linearly from 100% Load at 115VAC to 80% Load at 85VAC			85		264	
Frequency	Sine Wave			47		63	Hz
Input Current (rms)	Low Line, Full Load, Vin=100VAC				6.9		A
	High Line, Full Load, Vin=240VAC				2.9		
Inrush Current	Low Line, Full Load, 25°C, Cool Start, Vin=100VAC					20	A
	High Line, Full Load, 25°C, Cool Start, Vin=230VAC					45	
Power Factor				0.9		1	
Earth Leakage Current	Vin=240VAC. Fin=60Hz				0.25		mA
OUTPUT SPECIFICATIONS							
Output Voltage				See Table			
Output Current				See Table			
Line Regulation	Full Load, Vin=100-120VAC or 200-240VAC					1	%
Load Regulation	Vin=100-240VAC					3	%
Total Regulation					±3.0		%
Output Power						600	Watts
Hold Up Time	Hold up time is measured from the end of the last charging pulse to the time which the main output drops down to low limit of main output at rated load and nominal line (at 70% Full Load)				16		mS
Start Up Time	Full Load, Vin=100-240VAC					1	s
Rise Time	At 115VAC & 230VAC					10	ms
No Load Power Consumption				See Table			
PROTECTION							
Short Circuit Protection	Hiccup Mode, Non-Latching			Automatic Recovery			
Over Load Protection	Hiccup Mode, Non-Latching, Automatic Recovery			105		150	%
Over Voltage Protection	Latch Mode			112		132	%
Over Temperature Protection	Hiccup Mode, Non-Latching, Automatic Recovery		Input Circuit		120		°C
			SR MOSFET		120		

SPECIFICATIONS

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ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	Derate linearly from 100% Load at 50°C to 40% Load at 85°C	-40		85	°C
Storage Temperature	Surrounding Air Temperature	-40		85	°C
Operating Humidity	Non-Condensing	10		95	%
Altitude				5000	M
Vibration	10-500Hz, 10min./1cycle, 60min. each along X, Y, Z axes			5	G

GENERAL SPECIFICATIONS

Efficiency	Full Load, Vin=230VAC	See Table			
Isolation	Input to Output		4000		VAC
	Input to PE		2000		VAC

PHYSICAL SPECIFICATIONS

Weight	Weight varies depending on the model and accessories	12.88oz ~ 13.51oz (365-383g)			
Dimensions (L x W x H)		5in x 3in x 1.5" (127mm x 76.2mm x 38.1mm)			

SAFETY CHARACTERISTICS

Safety Standards ⁽⁴⁾	IEC 62368-1	Edition 2.0
	IEC 62368-1	Edition 3.0
	IEC 60601-1	Edition 3.1
	IEC 60601-1	Edition 3.2
	EN 62368-1	
	EN60601-1	
	UL62368-1	
	CAN/CSA-C22.2 NO.62368-1	
	CAN/CSA-C22.2 NO. 60601-1	
	ANSI/AAMI ES60601-1	

NOTES

1. With 10CFM Forced Air to max load
2. Standby=1A with Convection, Standby=2A with Forced Air
3. Total Output Power=Vo+standby=600W max.
4. This product is Listed to applicable standards and requirements by UL

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

EMC EMISSION

Description	Parameter	Standard	Test Level
Medical	Conducted	EN55011	Class B
	Radiated	EN55011	Class B ^{*(1)}
	Harmonics	EN61000-3-2	-
	Flicker	EN61000-3-3	-
ITE	Conducted	EN55032	Class B
	Radiated	EN55032	Class B
	Harmonics	EN61000-3-2	N/A
	Flicker	EN61000-3-3	-

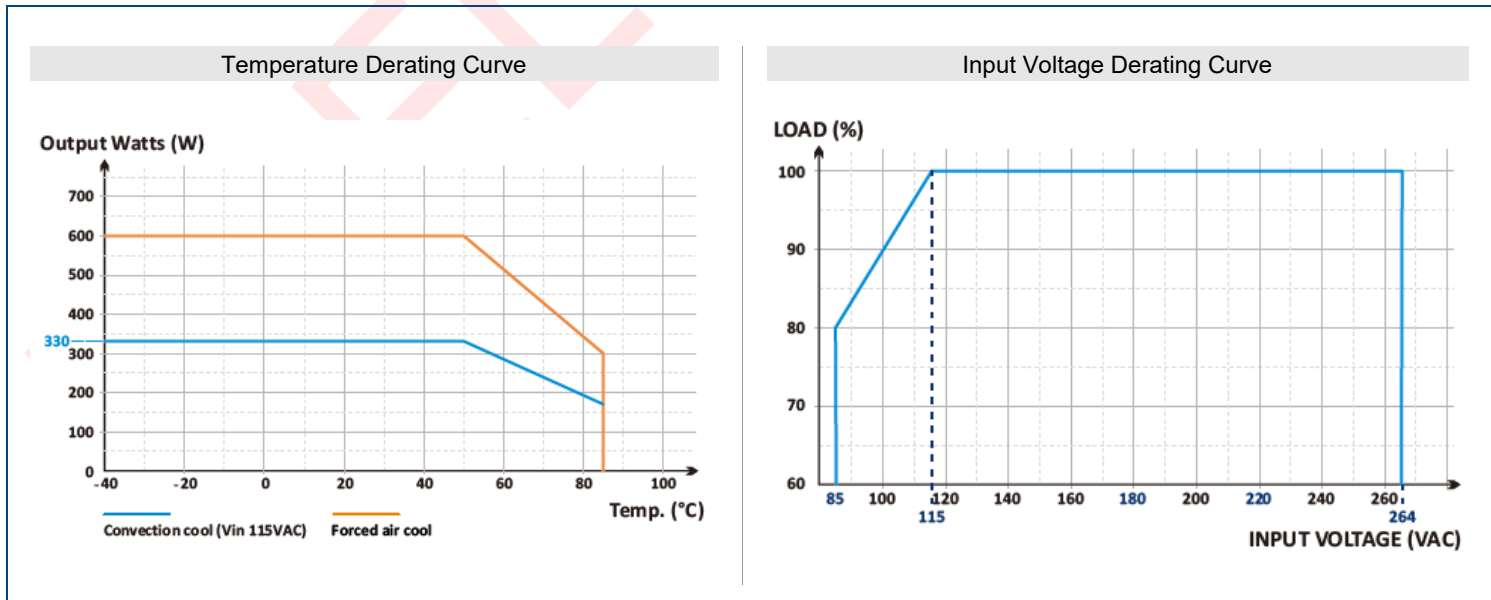
* The EMC test requires the integration of the switching power supply with the load of an end system.
Consequently, variations in the application or assembly of the end system will influence the test results.

EMC EMISSION

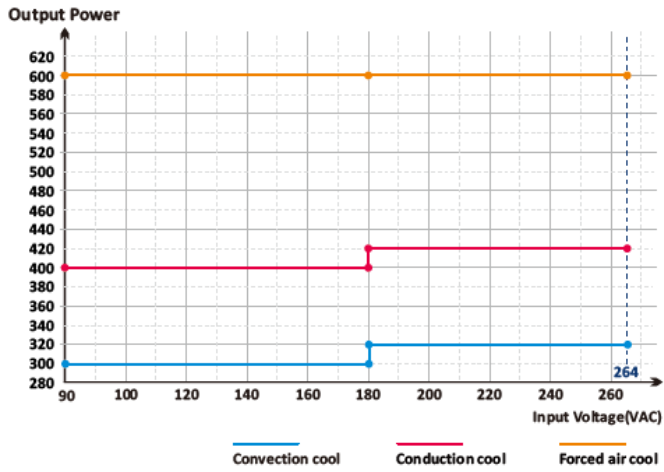
Description	Parameter	Standard	Test Level	Criteria
Medical	ESD	EN61000-4-2	15kV Air Discharge, 8kV Discharge Coupling Plane	A
	RS	EN61000-4-3	-	A
	EFT	EN61000-4-4	2kV	A
	Surge	EN61000-4-5	Line to Line ± 1 kV, Line to Ground ± 4 kV (TBD)	A
	CS	EN61000-4-6	0.15-80(MHz)	A
	PFMF	EN61000-4-8	-	A
	Voltage Dips (230V & 100V)	EN61000-4-11	0% UT, 0.5 cycle (10 ms) @ 300W 0°/45°/90°/135°/180°/225°/270°/315°/360°	A
			0% UT, 1 cycle (20ms), 0° @ 300W	B
			70% UT, 25 cycle (500ms), 0° @600W (230V), 330W (100V)	B
	Voltage Interruptions (230V & 100V)	EN61000-4-11	0% Ut, 250 cycle (5s) @ Full Load 0°/45°/90°/135°/180°/225°/270°/315°/360°	B
	Radiated Fields in Close Proximity	EN61000-4-39	-	A
ITE	ESD	EN61000-4-2	8kV Air Discharge, 4kV Discharge Coupling Plane	A
	RS	EN61000-4-3	80-1000 (MHz) 1800, 2600, 3500, 5000 (MHz) ($\pm 1\%$)	A
	EFT	EN61000-4-4	2kV	A
	Surge	EN61000-4-5	Line to Line ± 1 kV, Line to Ground ± 4 kV (TBD)	A
	CS	EN61000-4-6	0.15-80(MHz)	A
	PFMF	EN61000-4-8	-	A
	Voltage Dips (230V & 100V)	EN61000-4-11	0% UT, 0.5 cycle (10 ms) @ Full Load 0°/45°/90°/135°/180°/225°/270°/315°/360°	A
			0% UT, 1 cycle (20ms), 0° @ Full Load	B
			70% UT, 25 cycle (500ms), 0° @600W (230V), 330W (100V)	B
	Voltage Interruptions (230V & 100V)	EN61000-4-11	0% Ut, 250 cycle (5s) @ Full Load 0°/45°/90°/135°/180°/225°/270°/315°/360°	B

* The EMC test requires the integration of the switching power supply with the load of an end system. Consequently, variations in the application or assembly of the end system will influence the test results.

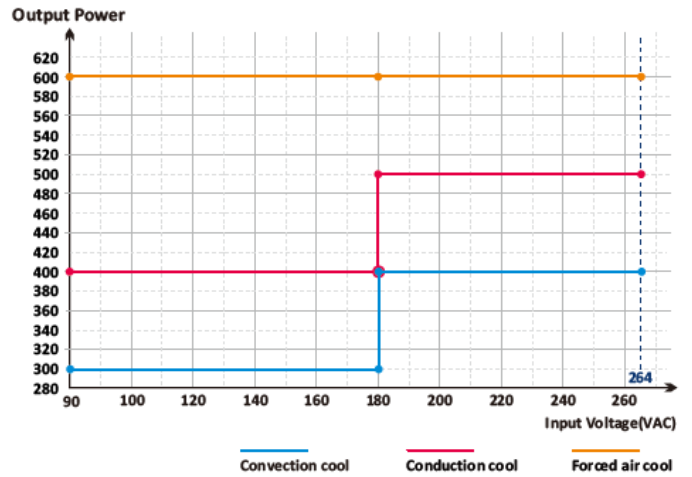
DERATING CURVES



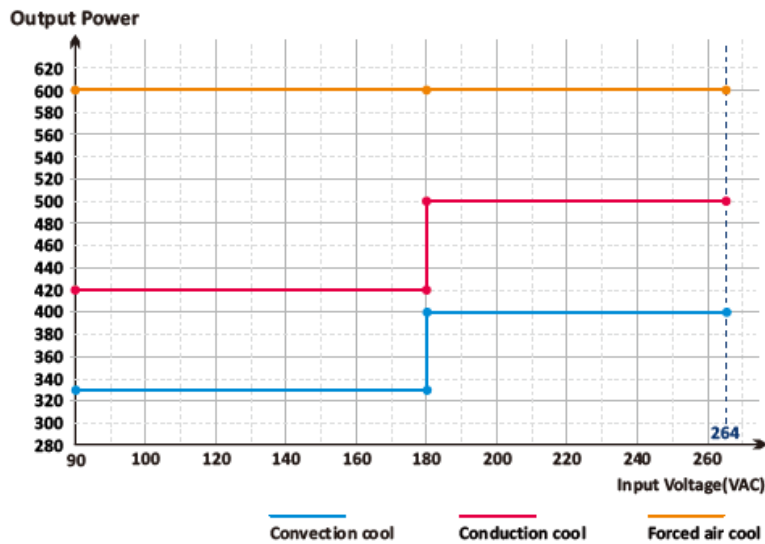
Derating Curve 12V Output



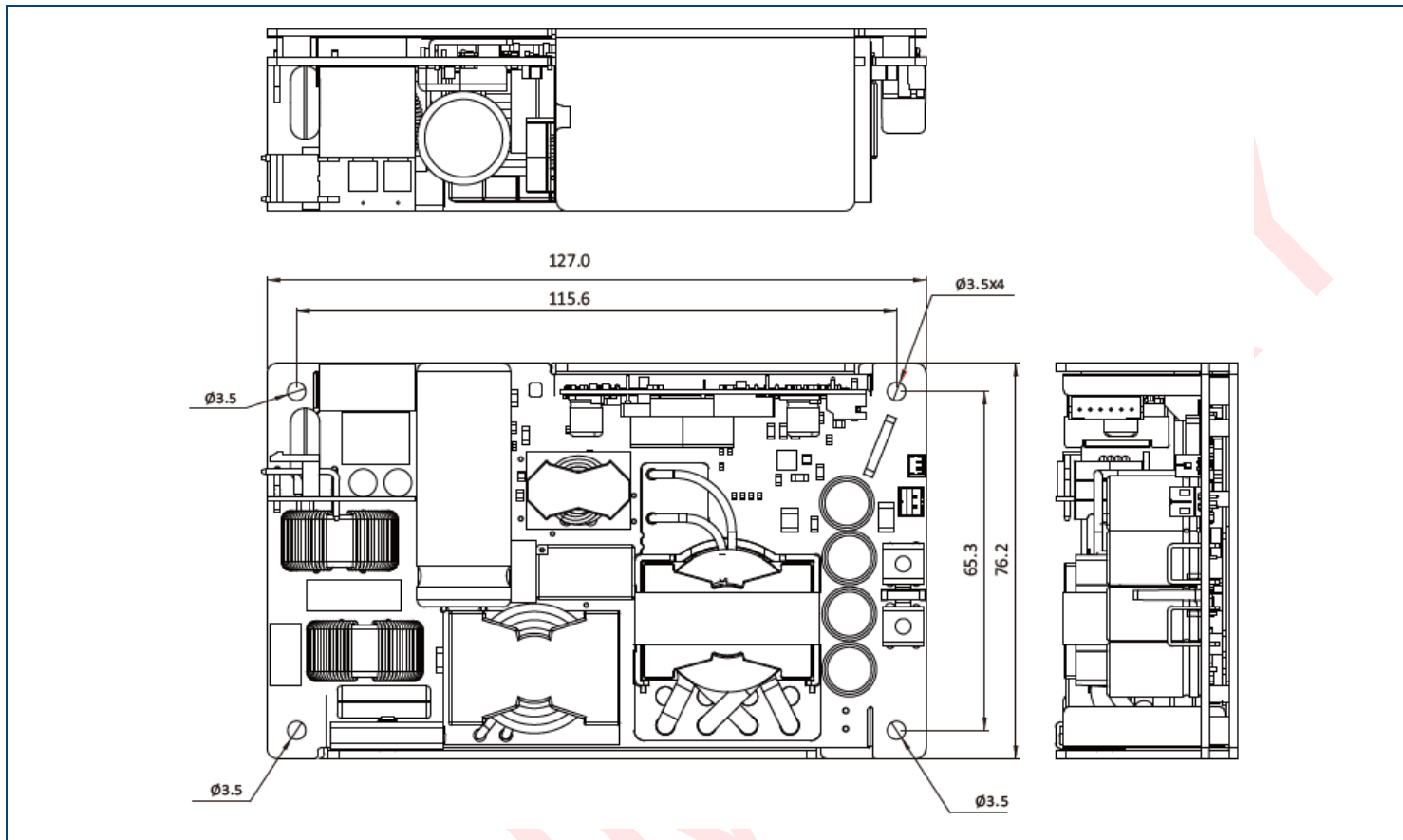
Derating Curve 19V Output



Derating Curve 24V & 48V Output



MECHANICAL DRAWINGS



MODEL NUMBER SETUP

PSMWC	600	-	12	S	05
Series Name	Output Power		Input Voltage	Output Quantity	Standby Power
			12: 12VDC 19: 19VDC 24: 24VDC 48: 48VDC	S: Single	Blank: Without 5V Standby Power 05: With 5V Standby Power

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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