Size: 8.5in x 3.94in x 1.57in
(225.5mm x 100mm x 40mm)

FEATURES

- Wide Operating Voltage 90~264VAC
- Input to Output: 2MOPP
- High ESD Immunity
- Active Power Factor Correction
- Over Voltage, Over Load, Over Temperature, and Short Circuit Protection
- Optional 5V Standby Output & RS485 Communication
- IEC60601-1 Edition 3.1, ES60601-1:2005 (R2012), CAN/CSAC22.2 No. 60601-1:14, EN60601-1:2015/A1:2013, IEC62368-1 Edition 2.0, UL 62368-1, CAN/CSA-C22.2 No. 62368-1-14, EN62368-1:2014 Safety Approvals

APPLICATIONS

- Test and Measurement
- Lab Equipment
- Ultrasound
- Video Wall Display
- Telecommunications
- In Vitro Diagnostic Devices
- Industrial Control and Automation
- Medical Applications

DESCRIPTION

The PSMG600 series of AC/DC power supplies offers 600 watts of output power in an 8.5” x 3.94” x 1.57” enclosed case. This series consists of single output models with a wide operating voltage range of 90~264VAC. Each model features active power factor correction, high ESD immunity, and protection against over voltage, over load, over temperature, and short circuit conditions. This series also has IEC60601-1 Edition 3.1, ES60601-1:2005 (R2012), CAN/CSAC22.2 No. 60601-1:14, EN60601-1:2015/A1:2013, IEC62368-1 Edition 2.0, UL 62368-1, CAN/CSA-C22.2 No. 62368-1-14, EN62368-1:2014 safety approvals.

MODEL SELECTION TABLE

Main Output Chart (Vo1)

Model Number	Vo1	Adjustment Regulation	Vo1 Regulation	Io	Max Output Power	Hold Up Time	Ripple Max	Typ. Efficiency	Typ. No Load Consumption	Short Circuit Protection
PSMG600-24S	24VDC	±2%	±3%	25.00A	600W	16ms	240mVp-p	89%	<5W	Auto Recovery
PSMG600-48S	48VDC	±2%	±2%	12.50A	600W	16ms	480mVp-p	91%	<5W	Auto Recovery
PSMG600-24SP	24VDC	±2%	±3%	20.48A~24.58A	590W	16ms	240mVp-p	88.5%	0.8 (Standby Mode)	Latch Off
PSMG600-48SP	48VDC	±2%	±2%	10.24A~12.29A	590W	16ms	480mVp-p	90%	0.8 (Standby Mode)	Latch Off
PSMG600-24SB	24VDC	±20%	±3%	20.48A~24.58A	590W	16ms	240mVp-p	88.5%	0.8 (Standby Mode)	Latch Off
PSMG600-48SB	48VDC	±20%	±2%	10.24A~12.29A	590W	16ms	480mVp-p	90%	0.8 (Standby Mode)	Latch Off

MODEL SELECTION TABLE

Standby Output Chart (Vo2)

Model Number	Vo2	Vo2 Regulation	Io Max	Remote On/Off Control	Short Circuit Protection	Ripple Max
PSMG600-24SP	5VDC	±5%	2A	Positive Logic (3.3~5V)	Auto Recovery	60mV
PSMG600-48SP	5VDC	±5%	2A	Positive Logic (3.3~5V)	Auto Recovery	60mV
PSMG600-24SB	5VDC	±5%	2A	Positive Logic (3.3~5V)	Auto Recovery	60mV
PSMG600-48SB	5VDC	±5%	2A	Positive Logic (3.3~5V)	Auto Recovery	60mV

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 Range	Safety Approval Input Voltage Range, Safety Approval & Specification in Label	100		240	VAC
	Input Operate Voltage Range, See Input Voltage Derating Curve	90		264	VAC
Input Frequency	Sine Wave	47		63	Hz
Input Current	Low Line, Full Load, Vin=100VAC		8		A
	High Line, Full Load, Vin=240VAC		4		
Inrush Current	Low Line, Full Load, 25°C, Cool Start, Vin=115VAC			41	A
	High Line, Full Load, 25°C, Cool Start, Vin=230VAC			82	
Safety Ground Leakage Current	Vin=264VAC, Fin=60Hz		0.25		mA
Power Factor Correction		0.92		1	
OUTPUT SPECIFICATIONS					
Output Voltage		See Table			
Line Regulation	Full Load, Vin=100~120VAC or 200~240VAC			1	%
Load Regulation		See Table			
Output Power		See Table			
Output Current		See Table			
Hold-Up Time	Main Nominal Output 70% Full Load, Vin=230VAC	See Table			
Ripple & Noise		See Table			
Temperature Coefficient	All Conditions			±0.04	%/°C
PROTECTION					
Short Circuit Protection	Vin=264VAC, Fin=60Hz	See Table			
Over Load Protection	Main Output (Vo1), Recovers Automatically	105		150	%
	5vsb (Vo2), Recovers automatically after fault condition is removed	105		150	%
Over Voltage Protection	Main Nominal Output, Latch Protection	112		132	%
Over Temperature Protection	Main Nominal Output, Restart after Power Unit Cools Down				
ENVIRONMENTAL SPECIFICATIONS					
Operating Temperature	Derate linearly from 100% load at 50°C, to 50% load at 70°C, See Temperature Derating Curve for Details	-40		70	°C
Storage Temperature	10-95%RH	40		85	°C
Operating Humidity	Non-Condensing	**0**		95	%RH
Storage Humidity		0		95	%RH
Operating Altitude (Elevation)				5000	m
Vibration	10~500Hz, 10min./1cycle, 60min. each along X,Y,Z axes			5	G
MTBF	Operating Temperature at 25°C, Nominal Line, Calculated per MIL-HDBK-217F	150,000			H
GENERAL SPECIFICATIONS					
Efficiency	Full Load, Vin=230VAC	See Table			
Insulation Resistant		50			MΩ
Dielectric Withstanding Voltage	(P-S), Primary to Secondary, Limit Current <10mA	4000			VAC
	(P-G) Primary to PE, Limit current <10mA	2000			
Surge Voltage	Line-Neutral			1	kV
	Line-PE & Neutral-PE			2	
PHYSICAL SPECIFICATIONS					
Weight		2.54lbs (1150g)			
Dimensions (L x W x H)		8.5in x 3.94in x 1.57in (225.5mm x 100mm x 40mm)			
Cooling		Free Air Convection			
SAFETY CHARACTERISTICS					
Safety Approvals	IEC60601-1 Edition 3.1 ES60601-1:2005 (R2012) CAN/CSAC22.2 No. 60601-1:14 EN60601-1:2015/A1:2013 IEC62368-1 Edition 2.0 UL 62368-1[(2)] CAN/CSA-C22.2 No. 62368-1-14 EN62368-1:2014				
EMC Emission	Compliance to EN55011, EN55032				Class B

NOTES

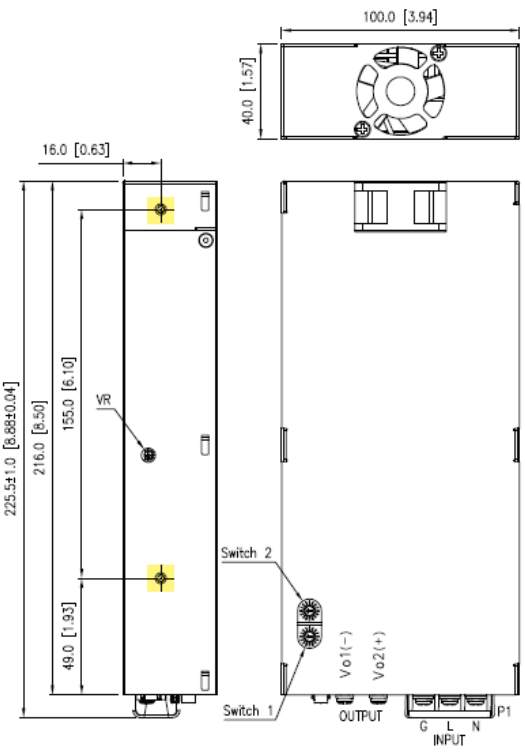
1. Blank Model Number = Main Output
   P Suffix = Main + Standby
   B Suffix = Main + Standby + RS485
2. This product is Listed to applicable standards and requirements by UL.
3. Output can provide up to peak load when the power supply starts up. Continually staying in more than rated load is not allowed.
4. At factory, in 60% rated load condition, each output is checked to be within voltage accuracy.
5. Line regulation is defined by changing ±10% of input voltage from nominal line at rated load.
6. Load regulation is defined by changing ±40% of measured output load from 60% rated load.
7. The ripple is measured from peak to peak with a bandwidth limit of 20MHz (measured at the output connector with a 0.1uF ceramic capacitor and a 47uF electrolytic capacitor.
8. 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.
9. Efficiency is measured at rated load and nominal line.

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

MECHANICAL DRAWINGS

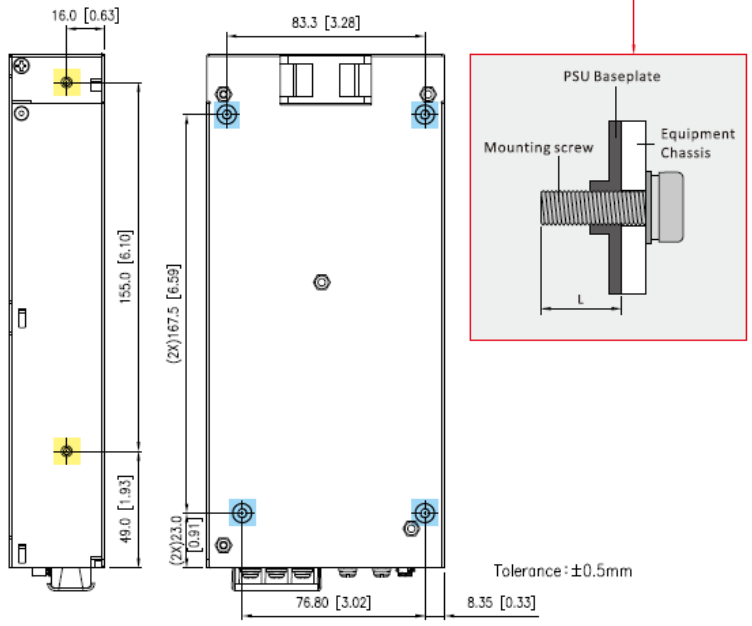
Unit: mm [inch]

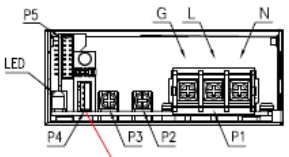
NET WEIGHT: 1150 g approx.



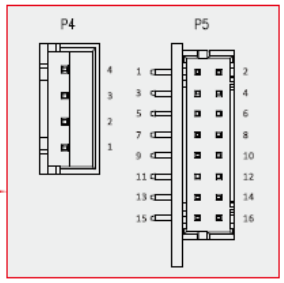
Mounting Screw Length Requirements:

Colored Square Mark	Mounting Screw Type	Installation Length Range(L)	Usage
Square Mark	M3 Type	2.0~3.5mm	4
Square Mark	M4 Type	3.2~3.5mm	4





P4&P5 Pin Definition



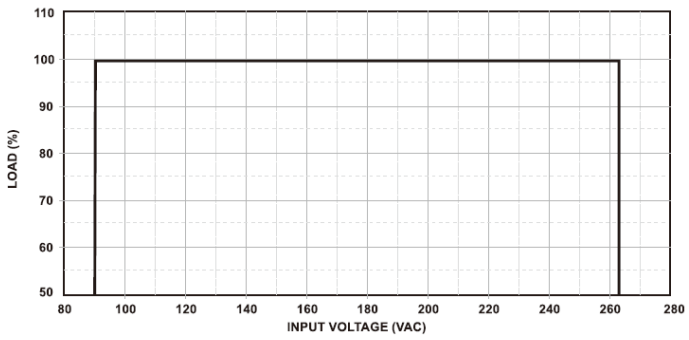
* Vo1(-)can't be shorted to RTN.
* Pin 2,4,6,8 and 10 on P5 connector are programming pins. Please don't connect anything to these pins.

PIN Chart

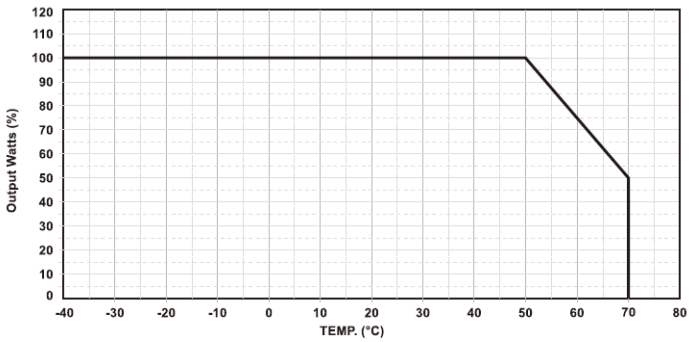
	Connector Definition	Connector Type	Pin Chart	Pin
INPUT	P1	DECA#T36-ED3103	NEUTRAL	N
			LINE	L
			PROTECTION EARTH	G
OUTPUT	P2	DINKLE#P810W	Vo1(+)	P2
	P3	DINKLE#P810W	Vo1(-)	P3
5V STB (Optional)	P4	JOINT TECH#A2501 WV-04P-1	PFD	1
			RTN1	2
			Remote ON/OFF	3
			Vo2(+5V)	4
Communication (Optional)	P5	JOINT TECH#A2211 WR-2X08P	Vcc (3.3V(	1,4
			MCLR	2
			DIMM	3
			RTN	5,6
			N/C	7,9,11,12
			PGD	8
			PGC	10
			485 D-	13
			485 D+	14
			CAN L	15
			CAN H	16
IP Address (Optional)	SW2		0~F	0 (Default)
	SW1		0~F	0 (Default)

DERATING CURVES

Input Voltage Derating Curve



Temperature Derating Curve



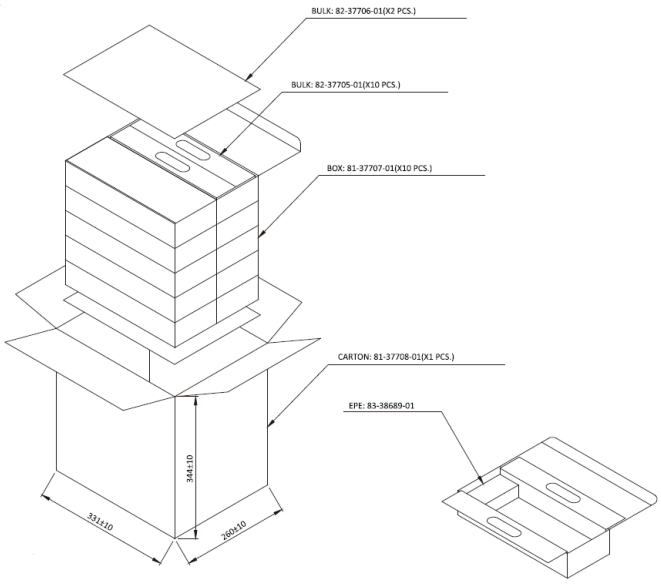
EMC SPECIFICATIONS

Emission		
ITEM	STANDARD	RESULT
Conducted	EN55011, EN55032	CLASS B
Radiated	EN55011, EN55032	CLASS B
Harmonics	EN61000-3-2	CLASS A
Flicker	EN61000-3-3	PASS

	ITEM	STANDARD	RESULT	CRITERION
IMMUNITY	ESD	EN61000-4-2	15kV Air Discharge, 8kV Contact Discharge	A
	RS	EN61000-4-3	PASS	A
	EFT	EN61000-4-4	Power Line 2kV, 1000KHz	A
	SURGE	EN61000-4-5	1kV Line to Line 2kV Line to PE	A
	CS	EN61000-4-6	3Vrms, 6Vrms	A
	PFMF	EN61000-4-8	30A/m, 50Hz	A
	Voltage Dips	EN61000-4-11	i) 100% reduction for 0.5 cycle at 50Hz	A
			ii) 0% reduction for 1 cycle at 50Hz	A
			iii) 30% reduction for 25/30 cycles at 50/60Hz	A
	Voltage Interruptions	EN61000-4-11	100% reduction for 250/300 cycles at 50/60Hz	B

STANDARD PACKAGING

Unit: mm
Power Supplies per Box (full box): 10pcs (2X1X5)
Box Dimensions: L33 x W26 x H34 cm
Gross Weight (full box): 13.10KGs
Packaging Part No: 84-38694-02



*Note the above packing is for reference only, please contact sales for a confirmation on packing information.

MODEL NUMBER SETUP

PSMG	600	-	24	S	P
Series Name	Output Power		Vo1	Output Quantity	Ouptut Voltage
			24: 24VDC **48:** 48VDC	**S:** Single	**Blank:** Main Output **P:** Main + Standby **B:** Main + Standby + RS485

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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