



Size:  
2.20 x 1.73 x 1.08 inches  
56.0 x 44.0 x 27.5 mm

Weight:  
3.17oz (90g)



### FEATURES

- Class II
- RoHS Compliant
- Up to 10 Watts Output Power
- 85% High Efficiency
- Energy Star 2.0, Efficiency Level VI
- 90-264VAC Input Voltage Range
- 100% Burn-In Tested
- 2 Prong Plug-in Mains Connector
- Single Outputs Ranging from 5VDC to 48VDC
- 0°C to +70°C Operating Temperature Range
- Meets FCC Class B Emission Limits
- UL 60950-1:2<sup>nd</sup> Edition and CSA C22.2 No 60950-1-07 Safety Approvals
- Optional Output Connectors Available
- Useful in a variety of applications

### DESCRIPTION

The WMSPU10 series of Class II AC/DC wall mount power supplies provides up to 10 Watts of continuous output power in a 2.20 x 1.73 x 1.08 inch package. This series consists of single output models ranging from 5VDC to 40VDC with a 90~264VAC input voltage range. All units are RoHS, and CEC & Energy Star Level VI compliant. This series also meets FCC class B emission limits and all models have UL 60950-1:2<sup>nd</sup> Edition and CSA C22.2 No 60950-1-07 safety approvals. All units have been 100% burn-in tested.

### MODEL SELECTION TABLE

Model Number	Input Voltage Range	Output Voltage <sup>(1)</sup>	Output Current	Total Regulation <sup>(2)</sup>	Ripple & Noise	Output Power	No-Load Power Consumption	Efficiency
WMSPU10-102	90 ~ 264VAC	5 ~ 5.99 VDC	1.33~1.60A	±5%	60mVp-p	8W	0.1W	77.2%
WMSPU10-103		6.5 ~ 8 VDC	1.00~1.23A	±5%	80mVp-p	8W	0.1W	80.7%
WMSPU10-104		8 ~ 11 VDC	0.90~1.25A	±5%	110mVp-p	10W	0.1W	82%
WMSPU10-105		11 ~ 13 VDC	0.76~0.90A	±5%	130mVp-p	10W	0.1W	82%
WMSPU10-106		13 ~ 16 VDC	0.62~0.76A	±5%	150mVp-p	10W	0.1W	82%
WMSPU10-107		16 ~ 21 VDC	0.47~0.62A	±5%	150mVp-p	10W	0.1W	82%
WMSPU10-108		21 ~ 27 VDC	0.37~0.47A	±4%	200mVp-p	10W	0.1W	82%
WMSPU10-109		27 ~ 33 VDC	0.30~0.37A	±4%	200mVp-p	10W	0.1W	83%
WMSPU10-110		33 ~ 40 VDC	0.25~0.30A	±4%	200mVp-p	10W	0.1W	84%
WMSPU10-111		40 ~ 48 VDC	0.20~0.25A	±4%	200mVp-p	10W	0.1W	85%

**TECHNICAL SPECIFICATIONS: WMSPU10 SERIES**

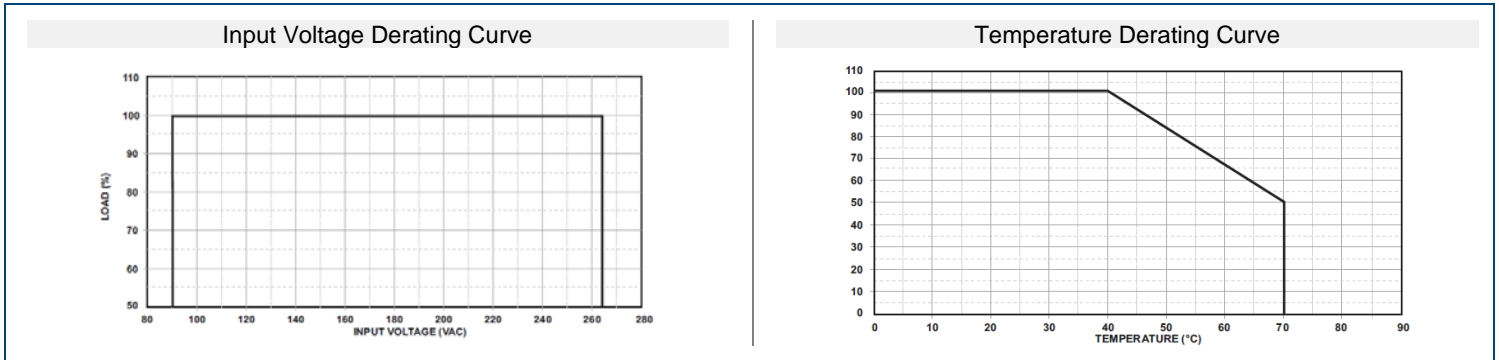
All specifications are based on 25°C, Nominal Input Voltage, and Maximum Output Current unless otherwise noted.  
We reserve the right to change specifications based on technological advances.

SPECIFICATION	TEST CONDITIONS	Min	Typ	Max	Unit
<b>INPUT SPECIFICATIONS</b>					
Input Voltage	Safety Approvals Input Voltage Range	100		240	VAC
	Operating Input Voltage Range	90		264	
Input Frequency		47		63	Hz
Input Current	Low Line	100VAC, full load	0.3		A
	High Line	240VAC, full load	0.12		
Inrush Current	Low Line	100VAC, full load, 25°C, cold start	25	35	A
	High Line	240VAC, full load, 25°C, cold start	50	84	
No Load Power Consumption	230VAC, no load			0.1	W
<b>OUTPUT SPECIFICATIONS</b>					
Output Voltage			See Table		
Line Regulation <sup>(6)</sup>	Full Load, 100~120VAC	0.5		1	%
Load Regulation <sup>(7)</sup>	230VAC, 10~90% Load Change at Condition	4		5	%
Output Power			See Table		
Output Current			See Table		
Ripple & Noise <sup>(8)</sup>			See Table		
Hold-up Time <sup>(9)</sup>	110VAC, full load		10		ms
Start-up Time	100~240VAC, full load			3	s
Transient Response Time	110VAC, Full load			4	ms
Temperature Coefficient	Full Load, Vin=100~240VAC	-0.04		+0.04	%/°C
<b>PROTECTION</b>					
Over Voltage Protection			none		
Over Current Protection	Output is protected against short circuit conditions		none		
<b>GENERAL SPECIFICATIONS</b>					
Efficiency	230VAC, full load		See Table		
Dielectric Withstanding Voltage	Primary to Secondary			4242	VDC
Safety Ground Leakage Current	240VAC/60Hz			0.25	mA
Surge Voltage	Line-Neutral			1	kV
	Line-PE & Neutral-PE			2	
<b>ENVIRONMENTAL SPECIFICATIONS</b>					
Operating Temperature	Derating linearly from 100% Load at 40°C to 50% load at 70°C	0		+70	°C
Storage Temperature		-40		+85	°C
Operating Humidity	Non-Condensing	0		95	%
Storage Humidity		0		95	%
Cooling			Free air convection		
Altitude	All Conditions			2000	M
Vibration	10~500Hz, 10min./1cycle, 60min. each along X, Y, Z axes			5	G
MTBF	MIL-HDBK-217F, 25°C	100,000			hours
<b>PHYSICAL SPECIFICATIONS</b>					
Weight			3.17oz (90g)		
Dimensions (L x W x H)			2.20 x 1.73 x 1.08 inches (56.0 x 44.0 x 27.5 mm)		
AC Plug			US Type		
Output Connector			Several options available		
<b>SAFETY, EMC, &amp; COMPLIANCE</b>					
Safety Approvals		UL 60950-1:2 <sup>nd</sup> Edition, CSA C22.2 No. 60905-1-07			
EMC Emission	Compliance to EN55022 (CISPR22)	B			Class
Compliance		RoHS and UL 94V-1			
CEC & Energy Star		CEC and Energy Star 2.0, Efficiency Level VI			
Electrostatic Discharge	IEC61000-4-2	Air Discharge		1	kV
		Contact Discharge		2	

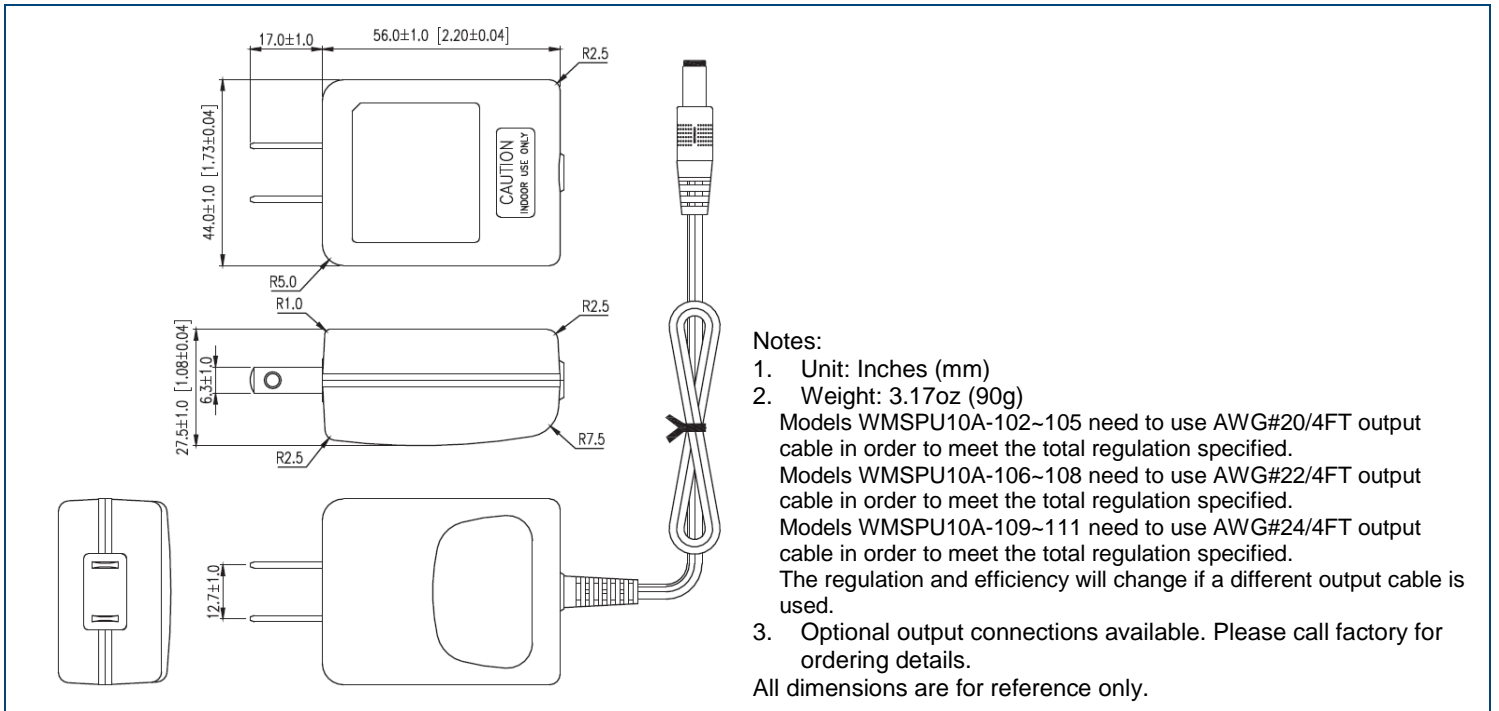
**NOTES**

1. The output voltage is specified as a range (ex: 33~40VDC); the customer must specify what they would like the output voltage set at.
2. Models WMSPU10A-102~105 need to use AWG#20/4FT output cable in order to meet the total regulation specified.  
Models WMSPU10A-106~108 need to use AWG#22/4FT output cable in order to meet the total regulation specified.  
Models WMSPU10A-109~111 need to use AWG#24/4FT output cable in order to meet the total regulation specified.  
The regulation and efficiency will change if a different output cable is used.
3. Optional output connectors are available for this series. Please call factory for ordering details.
4. Output can provide up to peak load when the power supply starts up. Continually staying in more than rated load is not allowed.
5. Each output is checked to be within voltage accuracy in 60% rated load condition.
6. Line regulation is defined by changing  $\pm 10\%$  of input voltage from nominal line at rated load.
7. Load regulation is defined by changing  $\pm 40\%$  of measured output load from 60% rated load.
8. Ripple & Noise is measured by using 20MHz bandwidth limited oscilloscope and terminated each output with a 0.47uF capacitor at rated load and nominal line.
9. 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.

**DERATING CURVE**



**MECHANICAL DRAWING**



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## 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 ISO9001-2008 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:

Phone: ☎ (603)778-2300  
Toll Free: ☎ (888)597-9255  
Fax: ☎ (603)778-9797  
E-mail: [sales@wallindustries.com](mailto:sales@wallindustries.com)  
Web: [www.wallindustries.com](http://www.wallindustries.com)  
Address: 37 Industrial Drive  
Exeter, NH 03833