

Wall Industries, Inc.

WMMPU12 SERIES

90~264VAC Input Voltage Range
Medical Approvals
12 Watt, Single Outputs
US, UK, and EU Plugs
Class II AC/DC Wall Mount Power Supplies



US Type



UK Type



EU Type



FEATURES

- Class II
- RoHS Compliant
- Energy Star 2.0, Efficiency Level V Compliant
- Single Outputs
- Wide Input Voltage Range: 90~264VAC, 47~63Hz
- Optional Output Connectors
- Over Voltage, Over Load, and Over Temperature Protection
- US, UK, and EU Types Available
- US Plug Medical Approvals: UL/cUL 60601-1: 3rd Edition
- UK and EU Plug Medical Approvals: TUV/T-mark EN60601-1: 3rd Edition

DESCRIPTION

The WMMPU12 series of Class II medical AC/DC wall mount power supplies provides up to 12 Watts of continuous output power. This series consists of single output models from 5VDC to 27VDC with a 90~264VAC input voltage range. These supplies also have over voltage, over load, and over temperature protection. This series has UL/cUL 60601-1: 3rd Edition (US plug type only) and TUV/T-mark EN60601-1: 3rd Edition (UK and EU plug types only) medical approvals. All units are RoHS and Energy Star 2.0, Efficiency Level V compliant. These units also meet new CE requirements and are well suited for use in blood pressure measurement equipment, frequency therapy devices, and dental curing light applications. The WMMPU12 series has three types of plugs available: US (A Type), UK (B Type), and EU (C Type). Optional output connectors are also available for this series. Please call factory for ordering details.

TECHNICAL SPECIFICATIONS: WMMPU12 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						
Operating Voltage Range	Operating Input Voltage Range		90		264	VAC
	Safety Approvals Input Voltage Range		100		240	
Input Frequency			47		63	Hz
Input Current	Low Line	Io = Full Load, Vin = 115VAC		0.25	0.35	A
	High Line	Io = Full Load, Vin = 230VAC		0.17	0.22	A
Inrush Current	Low Line	Io = Full Load, 25°C, Cool Start, Vin = 115VAC		14	25	A
	High Line	Io = Full Load, 25°C, Cool Start, Vin = 230VAC		28	50	A
No Load Power Consumption	No Load, Vin = 240VAC				0.3	W
OUTPUT SPECIFICATIONS						
Output Voltage			See Table			
Load Regulation	Vin = 230VAC			3	5	%
Line Regulation	Io = Full Load			0.5	1	%
Output Power	Vin = 90 to 264VAC		0		12	W
Output Current Range			See Table			
Ripple & Noise (peak to peak)	Full Load, Vin = 90VAC			0.5	1	%
Transient Response Time	Io = Full Load to Half Load, Vin = 100VAC				4	ms
Hold-Up Time	Io = Full Load, Vin = 110VAC		12	16		ms
Start-Up Time	Io = Full Load, Vin = 100VAC		0.3	1	2	s
Temperature Coefficient			-0.04		+0.04	%/°C
PROTECTION						
Over Voltage Protection			112		132	%
Over Current Protection			110		150	%
Over Temperature Protection (<i>See Note 1</i>)	Verified by design/characteristics of integrated controller		-25		130	°C
GENERAL SPECIFICATIONS						
Efficiency	Io = Full Load, Vin = 230VAC		73.3	77.7	85	%
Dielectric Withstanding Voltage	Primary to Secondary		5656			VDC
Safety Ground Leakage Current	Io = Full Load, Vin = 240VAC				0.1	mA
ENVIRONMENTAL SPECIFICATIONS						
Operating Temperature	Derate linearly from 100% Load at 50°C to 50% load at 70°C		0	50	70	°C
Storage Temperature			-40		85	°C
Operating Humidity			0		95	%
Storage Humidity			0		75	%
MTBF	Operating Temp. at 25°C, calculated per MIL-HDBK-217F		100,000 hours			
PHYSICAL SPECIFICATIONS						
Weight	US Plug (A Type)		4.6oz (130g)			
	UK Plug (B Type)		5.3oz (150g)			
	EU Plug (C Type)		4.9oz (140g)			
Dimensions (L x W x H)	US Plug (A Type)		2.52 x 2.17 x 2.10 inches (64.0 x 55.0 x 53.3 mm)			
	UK Plug (B Type)		2.52 x 2.17 x 2.37 inches (64.0 x 55.0 x 60.2 mm)			
	EU Plug (C Type)		2.52 x 2.17 x 2.70 inches (64.0 x 55.0 x 68.6 mm)			
SAFETY & EMI						
Safety Approvals	US Plug (A Type)		UL/cUL 60601-1:3rd Edition			
	UK & EU Plugs (B & C Types)		TUV/T-mark EN60601-1:3rd Edition			
EMI Requirements for CISPR-11	US Plug (A Type) Only	Vin = 120VAC, 60Hz	B			Class
EMI Requirements for CRF 47, Part-18	US Plug (A Type) Only	Vin = 120VAC, 60Hz	B			Class
EMI Requirements for EN55022	UK & EU Plugs (B & C Types) Only	Vin = 230VAC, 50Hz	B			Class

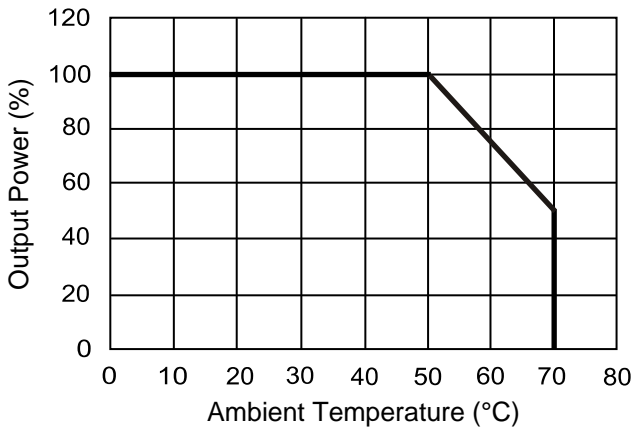
MODEL SELECTION TABLE

Model Number	Input Voltage Range	Output Voltage	Output Current	Total Regulation ⁽²⁾	Output Power	Plug Type
WMMPU12A-102	90 ~ 264 VAC	5 ~ 6 VDC	2.00 ~ 1.66 A	5%	10W	US
WMMPU12A-103	90 ~ 264 VAC	6 ~ 8 VDC	2.00 ~ 1.50 A	5%	12W	
WMMPU12A-104	90 ~ 264 VAC	8 ~ 11 VDC	1.50 ~ 1.09 A	5%	12W	
WMMPU12A-105	90 ~ 264 VAC	11 ~ 13 VDC	1.09 ~ 0.92 A	5%	12W	
WMMPU12A-106	90 ~ 264 VAC	13 ~ 16 VDC	0.92 ~ 0.75 A	5%	12W	
WMMPU12A-107	90 ~ 264 VAC	16 ~ 21 VDC	0.75 ~ 0.57 A	3%	12W	
WMMPU12A-108	90 ~ 264 VAC	21 ~ 27 VDC	0.57 ~ 0.45 A	3%	12W	
WMMPU12B-102	90 ~ 264 VAC	5 ~ 6 VDC	2.00 ~ 1.66 A	5%	10W	
WMMPU12B-103	90 ~ 264 VAC	6 ~ 8 VDC	2.00 ~ 1.50 A	5%	12W	
WMMPU12B-104	90 ~ 264 VAC	8 ~ 11 VDC	1.50 ~ 1.09 A	5%	12W	
WMMPU12B-105	90 ~ 264 VAC	11 ~ 13 VDC	1.09 ~ 0.92 A	5%	12W	
WMMPU12B-106	90 ~ 264 VAC	13 ~ 16 VDC	0.92 ~ 0.75 A	5%	12W	
WMMPU12B-107	90 ~ 264 VAC	16 ~ 21 VDC	0.75 ~ 0.57 A	3%	12W	
WMMPU12B-108	90 ~ 264 VAC	21 ~ 27 VDC	0.57 ~ 0.45 A	3%	12W	
WMMPU12C-102	90 ~ 264 VAC	5 ~ 6 VDC	2.00 ~ 1.66 A	5%	10W	EU
WMMPU12C-103	90 ~ 264 VAC	6 ~ 8 VDC	2.00 ~ 1.50 A	5%	12W	
WMMPU12C-104	90 ~ 264 VAC	8 ~ 11 VDC	1.50 ~ 1.09 A	5%	12W	
WMMPU12C-105	90 ~ 264 VAC	11 ~ 13 VDC	1.09 ~ 0.92 A	5%	12W	
WMMPU12C-106	90 ~ 264 VAC	13 ~ 16 VDC	0.92 ~ 0.75 A	5%	12W	
WMMPU12C-107	90 ~ 264 VAC	16 ~ 21 VDC	0.75 ~ 0.57 A	3%	12W	
WMMPU12C-108	90 ~ 264 VAC	21 ~ 27 VDC	0.57 ~ 0.45 A	3%	12W	

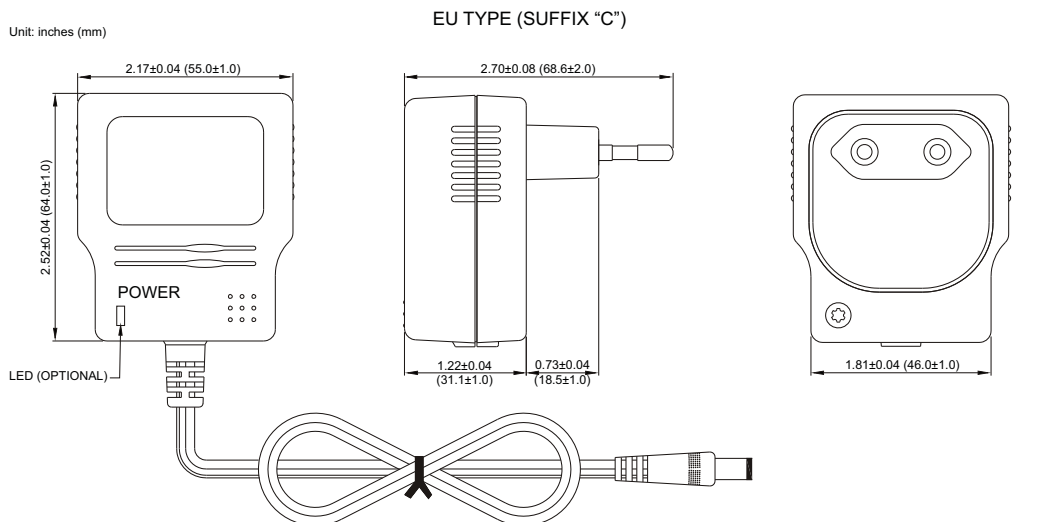
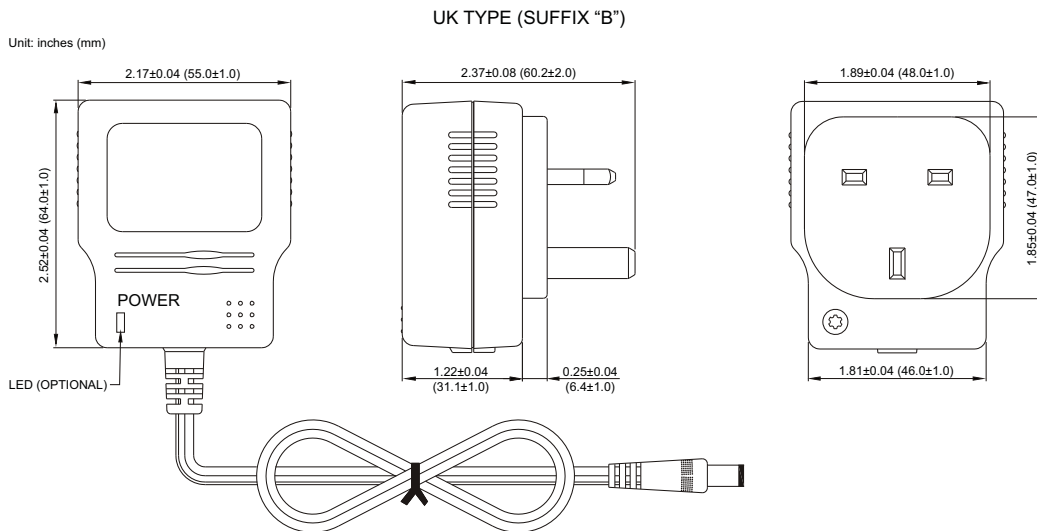
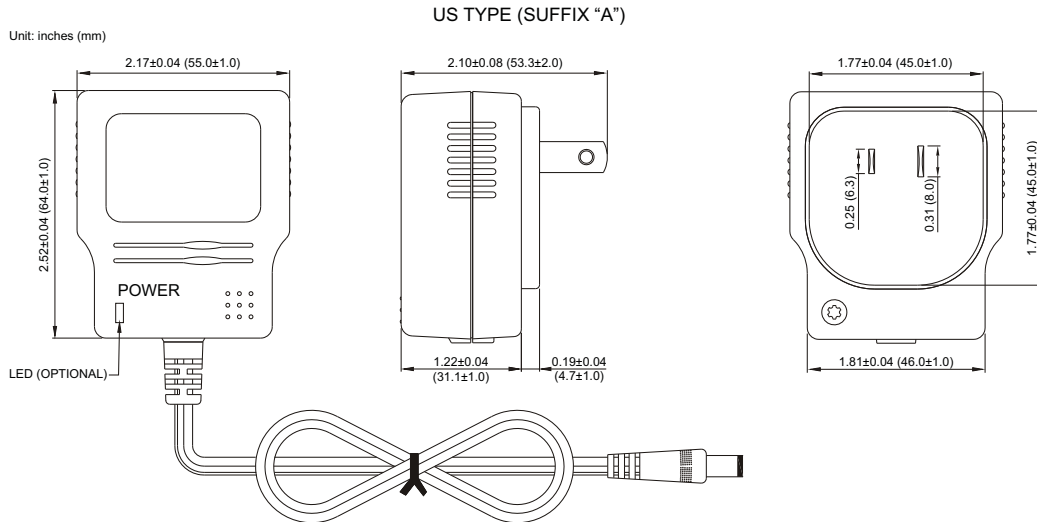
NOTES

- Over Temperature Protection: Thermal shutdown by junction temperature controller; the adapter will automatically recover when the fault condition is removed.
- Models WMMPU12-102~103 needs to use AWG#18/6FT output cable in order to meet the total regulation specified. Models WMMPU12-104~108 needs to use AWG#20/6FT output cable in order to meet the total regulation specified. The regulation and efficiency will change if a different output cable is used.
- Optional output connectors are available. Please call factory for ordering details.

DERATING CURVE



MECHANICAL DRAWING



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:

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