

IEC-320-C14



Size: 4.11in x 1.65in x 1.22in

IEC-320-C8



Size: 3.90in x 1.65in x 1.22in

IEC-320-C6



Size: 3.90in x 1.65in x 1.22in

**FEATURES**

- Class I for A & C Types; Class II for B Type
- RoHS Compliant
- Energy Star 2.0, Efficiency Level V Compliant
- Single Outputs
- Output Voltages Available from 5VDC to 36VDC
- Wide Input Operate Voltage Range: 80~275VAC, 47~63Hz
- Short Circuit, Over Voltage, and Over Load Protection
- Efficiency up to 85%
- High ESD Immunity
- IEC-320-C14, IEC-320-C8, and IEC-320-C6 Input Inlets Available
- Meets FCC Part-18 Class B, CISPR-11, and EN55022 Class B Emission Limits
- IEC-60601-1 Edition 3.1, ES60601-1:2005 (R2012), CSAC22.2 NO.60601-1:14, EN60601-1:2006/A1:2013 Safety Approvals

**APPLICATIONS**

- Patient Monitor
- Blood Pressure System
- Portable Medical Device
- ECG, EEG Machine
- Medical Tablet

**DESCRIPTION**

The DTMPU16 series of medical AC/DC desktop power supplies provides up to 15 Watts of continuous output power. This series consists of single output models with a 80~275VAC input voltage range. All units are UL94V-1, RoHS, and Energy Star 2.0 Level V compliant. All models meet FCC Part-18 class B, CISPR-11, and EN55022 class B emission limits and have IEC-60601-1 Edition 3.1, ES60601-1:2005 (R2012), CSAC22.2 NO.60601-1:14, EN60601-1:2006/A1:2013 safety approvals. These units also meet new CE requirements and have been 100% burn-in tested. The DTMPU16 series has three types of input inlets available: IEC-320-C14 (A Type), IEC-320-C8 (B Type), and IEC-320-C6 (C Type).

**MODEL SELECTION TABLE**

Model Number <sup>(1)</sup>	Input Voltage Range	Output Voltage	Output Current		Ripple & Noise	Total Regulation	Output Power	Efficiency
			Min Load	Max Load				
DTMPU16X-102	80~275VAC	5~5.99VDC	2.16A	2.60A	50mVp-p	±5%	13W	75%
DTMPU16X-103		6~8VDC	1.62A	2.16A	60mVp-p	±5%	13W	78%
DTMPU16X-104		8~11VDC	1.36A	1.87A	80mVp-p	±5%	15W	81%
DTMPU16X-105		11~13VDC	1.15A	1.36A	100mVp-p	±5%	15W	81%
DTMPU16X-106		13~16VDC	0.93A	1.15A	100mVp-p	±5%	15W	81%
DTMPU16X-107		16~21VDC	0.71A	0.93A	100mVp-p	±5%	15W	81%
DTMPU16X-108		21~27VDC	0.55A	0.71A	100mVp-p	±3%	15W	82%
DTMPU16X-109		27~33VDC	0.45A	0.55A	100mVp-p	±3%	15W	84%
DTMPU16X-110		33~36VDC	0.41A	0.45A	100mVp-p	±3%	15W	85%

**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.

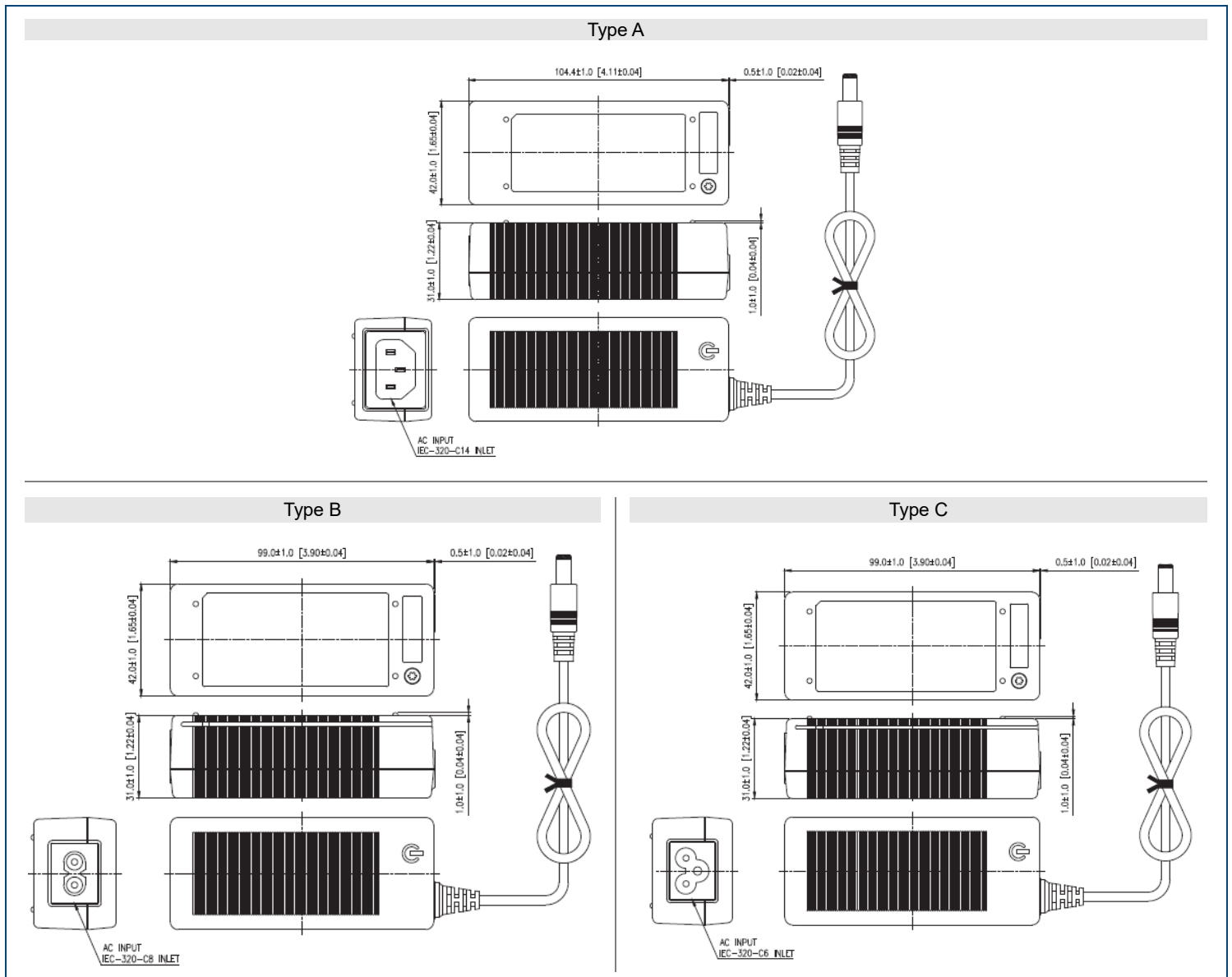
SPECIFICATION	TEST CONDITIONS	Min	Typ	Max	Unit
<b>INPUT SPECIFICATIONS</b>					
Input Voltage Range	Operating Input Voltage Range	80		275	VAC
	Safety Approval Input Voltage Range	100		240	
Input Frequency		47		63	Hz
Input Current	Low Line, Full Load, 100VAC	0.29	0.32		A
	High Line, Full Load, 240VAC	0.17	0.19		
Inrush Current	Low Line, Full Load, 25°C, Cool Start, Vin=100VAC			23	
	High Line, Full Load, 25°C, Cool Start, Vin=240VAC			55	
No Load Power Consumption			0.3		W
Safety Ground Leakage Current	Vin=264VAC/63Hz, A & C Types			0.15	mA
<b>OUTPUT SPECIFICATIONS</b>					
Output Voltage		See Table			
Line Regulation <sup>(4)</sup>	Full Load, Vin=100~120VAC or 200~240VAC	0.5		1	%
Load Regulation <sup>(5)</sup>		See Table			
Output Power		See Table			
Output Current		See Table			
Ripple & Noise <sup>(6)</sup>		See Table			
Transient Response Time	Io=Full Load to Half Load, Vin=110VAC			4	ms
Start-Up Time	Full Load, Vin=100~240VAC			2	s
Hold Up Time <sup>(7)</sup>			10		mS
Temperature Coefficient	All Conditions			±0.04	%/°C
<b>PROTECTION</b>					
Short Circuit Protection		Automatic Recovery			
Over Load Protection	Recovers automatically after fault condition is removed	110		150	%
Over Voltage Protection		112		132	%
<b>ENVIRONMENTAL SPECIFICATIONS</b>					
Operating Temperature	Derates linearly from 100% Load at 50°C to 50% load at 70°C	-10		70	°C
Storage Temperature	10~95%RH	-40		85	°C
Operating Humidity		0		95	%RH
Storage Humidity		0		95	%RH
Operating Altitude	All Conditions			3000	m
Vibration	10~500Hz, 10min./1cycle, 60min. each along X, Y, Z axes			5	G
MTBF		200,000			Hours
<b>GENERAL SPECIFICATIONS</b>					
Efficiency	Full Load, Vin=230VAC	See Table			
Dielectric Withstanding Voltage	Primary to Secondary, Limit current <10mA, All Types			4000	VAC
	Primary to PE, Limit Current <10mA, A & C Types			1500	VAC
Insulation Resistance	A & C Types	50			MΩ
<b>PHYSICAL SPECIFICATIONS</b>					
Weight		Approx. 6oz (170g)			
Dimensions (L x W x H)	A Type	4.11in x 1.65in x 1.22in (104.4mm x 42.0mm x 31.0mm)			
	B & C Types	3.90in x 1.65in x 1.22in (99mm x 42mm x 31mm)			
Cooling		Free Air Convection			
Flammability Rating		UL94V-1			
<b>SAFETY CHARACTERISTICS</b>					
Safety Approvals	IEC-60601-1 Edition 3.1, ES60601-1:2005 (R2012), CSAC22.2 NO.60601-1:14, EN60601-1:2006/A1:2013				
EMC Emission	Compliance to EN55011 (CISPR), EN60601-1-2				Class B
Protection Class	A & C Types	Class I			
	B Type	Double Insulated, Class II			
Surge Voltage	IEC-61000-4-2	Air Discharge		1	kV
		Contact Discharge		2	

**NOTES**

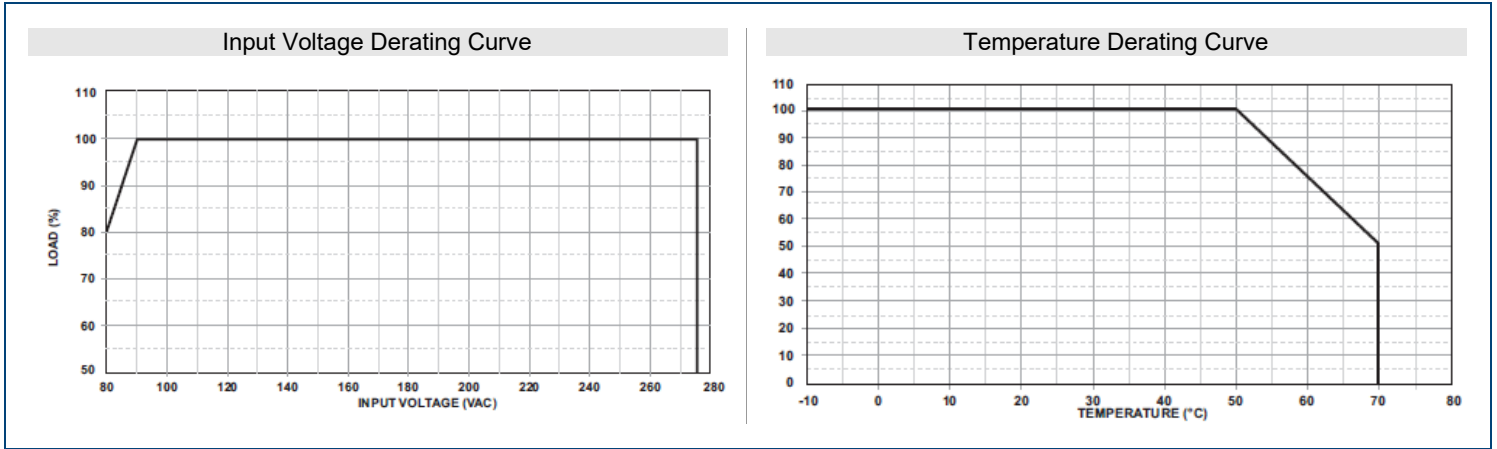
1. "X" in model number indicates AC-Inlet option. "X" can be "A" for IEC-320-C14, "B" for IEC-320-C8, or "C" for IEC-320-C6.
2. Output can provide up to peak load when power supply starts up. Staying in more than rated load continually is not allowed.
3. At factory, in 60% rated load condition, each output is checked to be within voltage accuracy.
4. Line regulation is defined by changing  $\pm 10\%$  of input voltage from nominal line at rated load.
5. Load regulation is defined by changing  $\pm 40\%$  of measured output load from 60% rated load.
6. 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.
7. 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.
8. DTMPU16X-102~103 required to use AWG #16 4FT output cable.  
DTMPU16X-105~110 required to use AWG #18/4FT output cable.  
Regulation and efficiency will be changed by modified output cable.  
Optional output connectors are available-please contact factory for more information.

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

**MECHANICAL DRAWINGS**



DERATING CURVES



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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