



Size: 8.74in x 4.4in x 1.77in
(222mm x 112mm x 45mm)

FEATURES

- Input Voltage Range of 90-264VAC
- 3-Pin IEC320-C14, Class I AC Inlet
- Touch Current Less than 100uA
- 2xMOPP Between Primary to Secondary
- Suitable BF Application with Appropriate System Consideration
- Short Circuit, Over Load, Over Voltage, Over Temperature Protection
- RoHS Compliant
- UL/cUL 60601-1, TUV EN 60601-1, CB IEC 60601-1, UL/cUL UL 62368-1, TUV EN 62368-1, and CB IEC 62368-1 Safety Standards

DESCRIPTION

The DTMB400 series of AC/DC desktop power supplies offers 400 watts of output power in a 8.74" x 4.4" x 1.77" package. This series consists of single output models with an input voltage range of 90-264VAC a 3-pin IEC320-C14 ac inlet. Each model in this series is RoHS compliant and has short circuit, over load, over voltage, and over temperature protection. This series also has UL/cUL 60601-1, TUV EN 60601-1, CB IEC 60601-1, UL/cUL UL 62368-1, TUV EN 62368-1, and CB IEC 62368- safety approvals.

MODEL SELECTION TABLE

Model Number	Input Voltage Range	Output Voltage	Output Current	Ripple & Noise ⁽¹⁾	Output Regulation	Output Power	Peak Power (3s)		Efficiency Level
							115VAC	230VAC	
DTMB400-12S	90-264VAC	12V	31.66A	120mVp-p	±5%	380W	480W	520W	VI
DTMB400-19S		19V	21.05A	190mVp-p	±5%	400W			
DTMB400-24S		24V	16.66A	240mVp-p	±5%	400W			
DTMB400-28S		28V	14.28A	300mVp-p	±5%	400W			
DTMB400-48S		48V	8.33A	300mVp-p	±5%	400W			

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		90		264	VAC
Input Frequency		47		63	Hz
Inrush Current	@115VAC, Cold Start @25°C			35	A
	@230VAC, Cold Start @25°C			70	
Input Current (rms)	@115VAC			4.2	A
	@230VAC			2.1	
Power Factor	@115VAC, Full Load	0.95			
	@230VAC, Full Load	0.90			
No Load Input Power				0.5	W
OUTPUT SPECIFICATIONS					
Output Voltage			See Table		
Output Regulation			See Table		
Output Power	Convection Cooling		380/400		W
Output Current			See Table		
Ripple & Noise ⁽²⁾			See Table		
Hold-Up Time	@Full Load, 115VAC		>10		mS
Touch Current	@264VAC			100	uA
PROTECTION					
Short Circuit Protection			Automatic Recovery		
Over Load Protection			Automatic Recovery		
Over Voltage Protection			Automatic Recovery		
Over Temperature			Automatic Recovery		
ENVIRONMENTAL SPECIFICATIONS					
Operating Temperature	Refer to derating curve	-20		+60	°C
Storage Temperature	Non-Condensing	-20		85	°C
Operating Humidity	Non-Condensing	10		95	%
Storage Humidity	Non-Condensing	0		95	%
Altitude During Operation	Medical			5000	m
MTBF	@Full Load and 25°C ambient temperature based on Bellcore TR-332	230,000			hours
GENERAL SPECIFICATIONS					
Efficiency	Average Efficiency, 115/230VAC	87.5			%
	@80% Full Load, 230VAC	92			

SPECIFICATIONS

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SPECIFICATION	TEST CONDITIONS	Min	Typ	Max	Unit
PHYSICAL SPECIFICATIONS					
Weight		3.59lbs (1.63kg)			
Dimensions (L x W x H)		8.74in x 4.4in x 1.77in (222mm x 112mm x 45mm)			
SAFETY CHARACTERISTICS					
Safety Standards		UL/cUL 60601-1 ⁽⁴⁾ TUV EN 60601-1 CB IEC 60601-1 UL/cUL UL62368-1 TUV EN 62368-1 CB IEC 62368-1			
EMC Standards		EN 60601-1-2 EN 55011 EN55032 EN 55035 FCC Part 15 FCC Part 18 CE			
					Class B Class B Class B Class B Class B

NOTES

- Ripple and noise are measured at oscilloscope 20MHz bandwidth by a 47uF electrolytic capacitor and a 0.1uF ceramic capacitor in parallel at output connector. Ripple and Noise of this series is tested under full load condition.
- (-1 to -20°C ambient temperature and EMS Immunity worse case O/P Regulation ≤ +/-10%)
- Switching frequency of this series is set within 56 to 85KHz at full load.
- This product is Listed to applicable standards and requirements by UL.

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

SAFETY AND EMC PERFORMANCE

Description	Safety	EMC
Medical Equipment	IEC 60601-1: 2005+A1:2012 EN 60601-1: 2006+A1:2013 ANSI/AAMI ES60601-1: 2005/(R) 2012+A1:2012, C1:2009/(R)2012+A2:2010/(R)2012 CSA C22.2 No. 60601-1:14, 3 rd Ed.	EN 60601-1-2:2015 EN 55011:2009+A1:2010 FCC 47 CFR Part 18
Audio/Video, ITE Equipment	IEC 62368-1:2018 EN IEC 62368-1: 2020+A11: 2020 UL 62368-1, 3 rd Ed. CAN/CSA C22.2 No. 62368-1:19, 3 rd Ed.	EN 55032:2015+A11:2020 EN 55035:2017+A11:2020 FCC 47 CFR Part 15B ICES-003 Issue 7

Tests for conformance to this equipment will be performed with final system.

(*) FCC PART 15 compliance information and warnings:

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

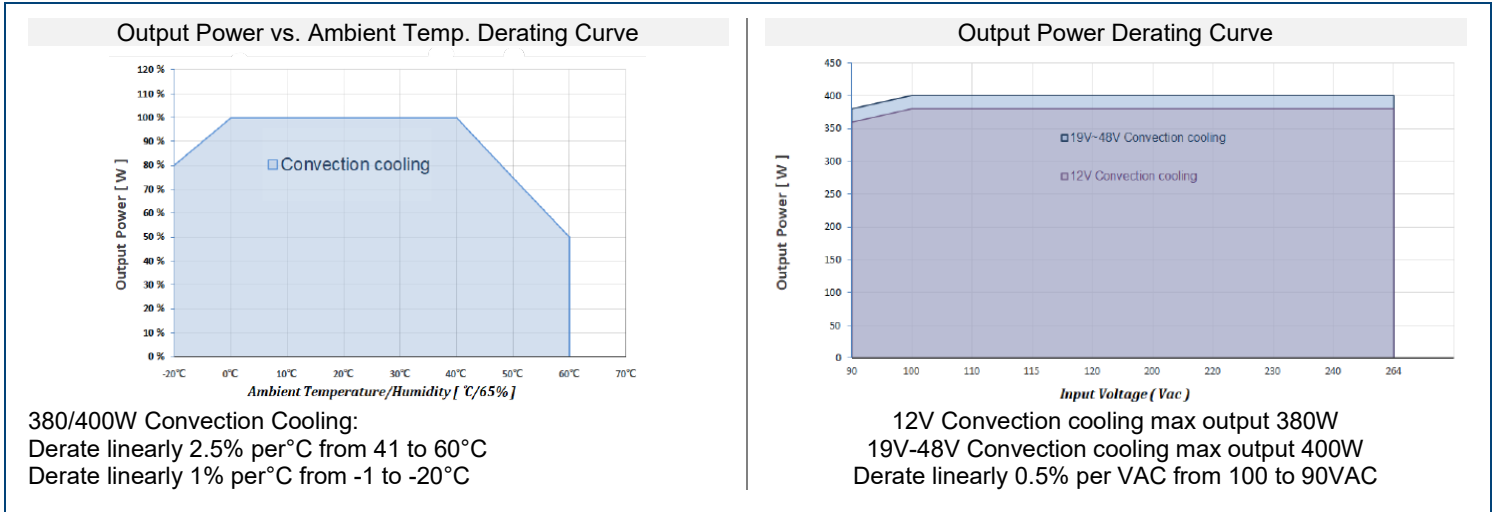
- This device may not cause harmful interference
- This device must accept any interference received, including interference that may cause undesired operation.

INSULATION LEVEL AND DIELECTRIC WITHSTAND (HI-POT)

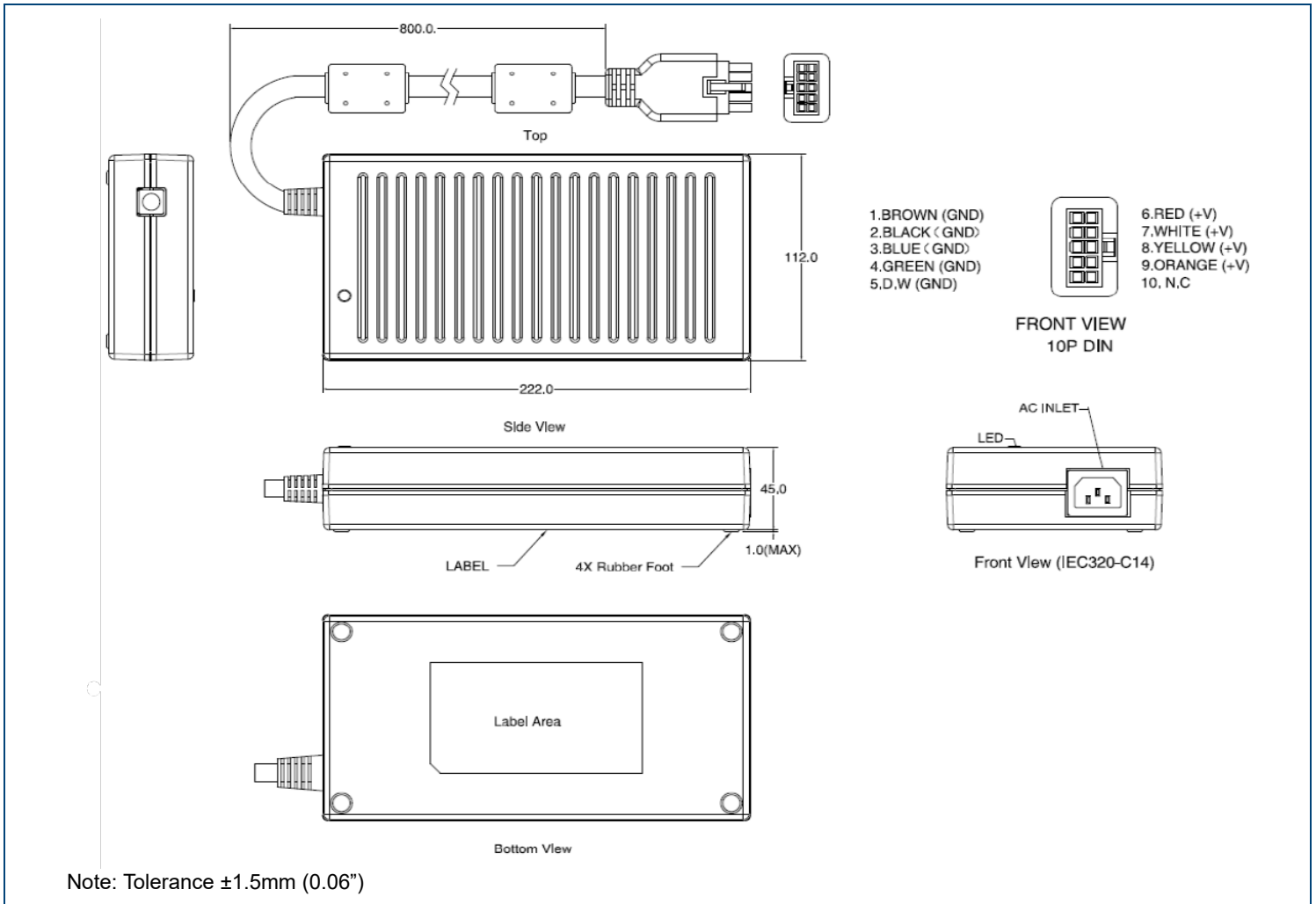
Audio/Video, ITE Equipment	Isolation Voltage	Grade Insulation
Primary Circuits to Secondary Circuits	4242VDC (3000VAC)	Reinforced
Primary Circuits to Earth Ground	2121Vdc (1500VAC)	Basic
Secondary Circuits to Earth Ground	2121Vdc (1500VAC)	Basic
Medical Equipment	Isolation Voltage	Grade Insulation
Primary Circuits to Secondary Circuits	5656Vdc (4000VAC)	2 MOPP
Primary Circuits to Earth Ground	2121Vdc (1500VAC)	1 MOPP
Secondary Circuits to Earth Ground	2121Vdc (1500VAC)	1 MOPP

Note: Production testing use dc voltage test 4 sec.

DERATING CURVES



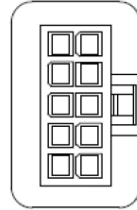
MECHANICAL DRAWINGS



MATCHING CONNECTORS

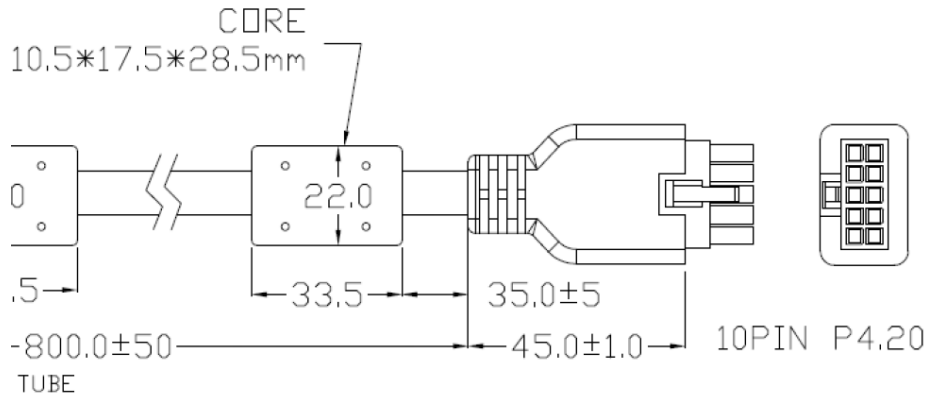
DC Output Connector
Standard male plug (power supply side): 10 PIN mini fit pitch: 4.2mm
Mating connector: Molex P/N: 39-28-1123 or equivalent
DC output cable: 8C+1, UL2464, 16AWG, VW-1, 80°C, 300V

- 1. BROWN (GND)
- 2. BLACK (GND)
- 3. BLUE (GND)
- 4. GREEN (GND)
- 5. D.W (GND)



- 6. RED (+V)
- 7. WHITE (+V)
- 8. YELLOW (+V)
- 9. ORANGE (+V)
- 10. N.C

FRONT VIEW
10P DIN



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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