Wall Industries, Inc.

DATASHEET
Rev. B

DTEM1090 SERIES

100~240VAC Input Voltage Range
C14, C8, and C6 AC Inlet Connector Types
70~100 Watts, Single Outputs
Medical AC/DC Desktop Power Supplies

IEC-320-C14 **IEC-320-C8** **IEC-320-C6**

FEATURES

- Single Outputs
- CEC/Energy Star Level V Compliant
- RoHS Compliant
- Short Circuit and Over Voltage Protection
- MTBF: > 30,000 Hours
- 100~240VAC Input Voltage Range
- C14, C8, and C6 AC Inlet Connectors Available
- Optional Output Connectors Available
- Dimensions: 5.96” x 2.31” x 1.35”
- EN/IEC 60601 and UL60601, 3rd Edition Medical Approvals

DESCRIPTION

The DTEM1090 series of medical AC/DC desktop power supplies provides up to 100 Watts of continuous output power in a 5.96” x 2.31” x 1.35” package. This series consists of single output models with a wide input voltage range of 100~240VAC. The DTEM1090 series is RoHS and CEC/Energy Star Level V compliant and has EN/IEC 60601 and UL60601, 3rd edition medical approvals. These models are also protected against over voltage and short circuit conditions. This series has three AC inlet connector types available: IEC-320-C14, IEC-320-C8, and IEC-320-C6. Please call factory for ordering details.

SPECIFICATIONS: *DTEM1090 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
INPUT SPECIFICATIONS					
Input Voltage Range		100		240	VAC
Input Frequency		50		60	Hz
Input Current				3.15	A
Inrush Current				100	A
OUTPUT SPECIFICATIONS					
Output Voltage *(See Note 2)*		See Table			
Line Regulation	defined by changing ±10% of input voltage from nominal line and rated load.	-1		+1	%
Load Regulation		-5		+5	%
Output Current		See Table			
Minimum Load		0			A
Output Power		See Table			
Ripple & Noise	Measured at nominal line and full load with 20MHz limited bandwidth and 0.1µF ceramic and 47µF aluminum capacitors in parallel on the output.		350		mVp-p
Hold-up Time		8.3			ms
Turn-on Time				3	s
PROTECTION					
Over Voltage Protection		Automatic recovery			
Short Circuit Protection		Automatic recovery			
GENERAL SPECIFICATIONS					
Efficiency (typical)			82		%
ENVIRONMENTAL SPECIFICATIONS					
Operating Temperature		0		40	°C
Storage Temperature		-20		85	°C
Storage Humidity		5		95	%
MTBF		30,000			hours
PHYSICAL SPECIFICATIONS					
Dimensions (L x W x H)		5.96 x 2.31 x 1.35 inches (151.45 x 58.8 x 34.2 mm)			
AC Inlet Connector *(See Note 1)*		IEC-320-C14, C8, and C6			
Weight		1.2 lbs (550g)			
SAFETY & EMC					
Safety Standards		UL60601, 3rd Edition(5), EN/IEC 60601, CE, CB			
Compliance		RoHS, WEEE, CEC/Energy Star Level V			

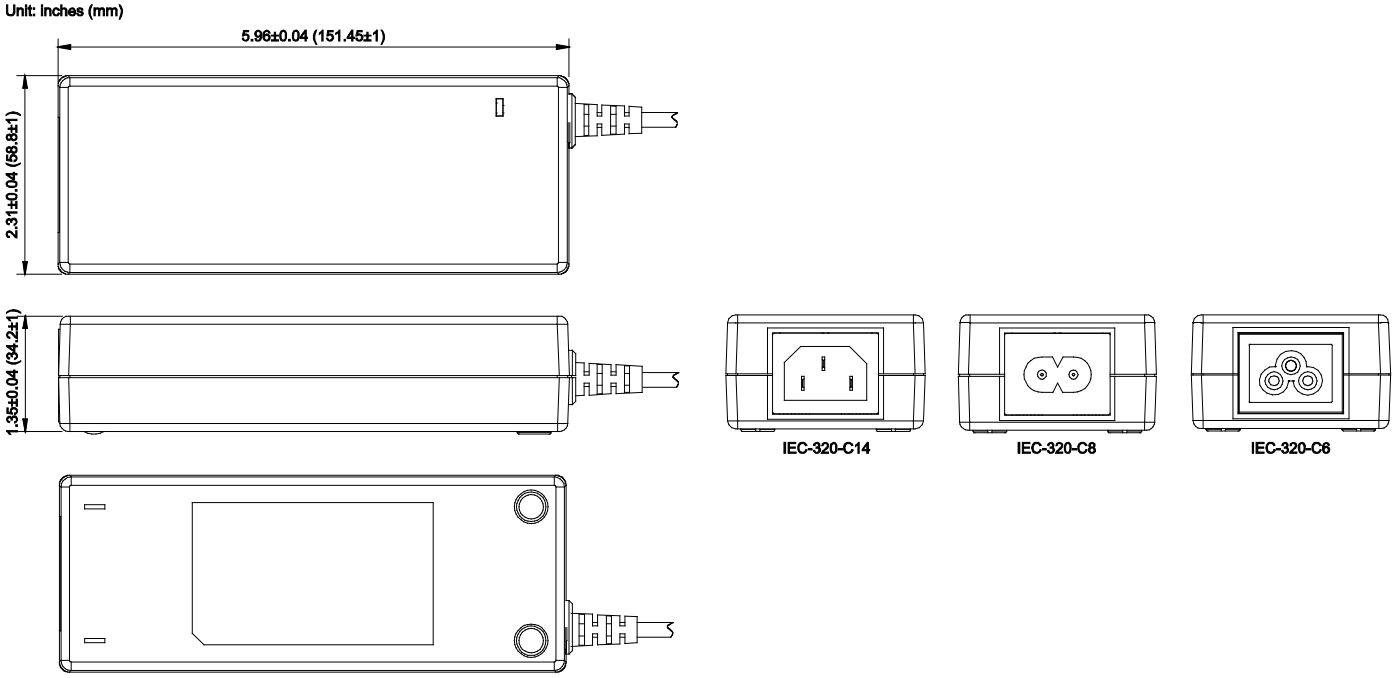
MODEL SELECTION TABLE							
Model Number [1]	Input Voltage Range	Output Voltage [2]	Output Current		Ripple & Noise [3]	Maximum Output Power	AC Inlet Type
			Min	Max			
DTEM10901A	100 ~ 240 VAC	12 ~ 17 VDC	0A	7.5A	350mVp-p	90W	IEC-320-C14
DTEM10901B		18 ~ 24 VDC	0A	5.56A	350mVp-p	100W	
DTEM10901C		12 ~ 17 VDC	0A	6.67A	350mVp-p	80W	
DTEM10901D		18 ~ 24 VDC	0A	5.0A	350mVp-p	90W	
DTEM10901E		12 ~ 17 VDC	0A	5.83A	350mVp-p	70W	
DTEM10901F		18 ~ 24 VDC	0A	4.44A	350mVp-p	80W	
DTEM10902A	100 ~ 240 VAC	12 ~ 17 VDC	0A	7.5A	350mVp-p	90W	IEC-320-C8
DTEM10902B		18 ~ 24 VDC	0A	5.56A	350mVp-p	100W	
DTEM10902C		12 ~ 17 VDC	0A	6.67A	350mVp-p	80W	
DTEM10902D		18 ~ 24 VDC	0A	5.0A	350mVp-p	90W	
DTEM10902E		12 ~ 17 VDC	0A	5.83A	350mVp-p	70W	
DTEM10902F		18 ~ 24 VDC	0A	4.44A	350mVp-p	80W	
DTEM10903A	100 ~ 240 VAC	12 ~ 17 VDC	0A	7.5A	350mVp-p	90W	IEC-320-C6
DTEM10903B		18 ~ 24 VDC	0A	5.56A	350mVp-p	100W	
DTEM10903C		12 ~ 17 VDC	0A	6.67A	350mVp-p	80W	
DTEM10903D		18 ~ 24 VDC	0A	5.0A	350mVp-p	90W	
DTEM10903E		12 ~ 17 VDC	0A	5.83A	350mVp-p	70W	
DTEM10903F		18 ~ 24 VDC	0A	4.44A	350mVp-p	80W	

NOTES

1. The number in **red** represents the type of AC inlet connector: "**1**" for IEC-320-C14 type, "**2**" for IEC-320-C8 type, and "**3**" for IEC-320-C6 type.
2. The output voltage is specified as a range (Ex: 18~24VDC); the customer must specify what they want the voltage set at.
3. Ripple and Noise is measured at nominal line and full load with 20MHz limited bandwidth and a 0.1µF ceramic and 47µF aluminum capacitors in parallel on the output.
4. Optional output connectors are available. Please call factory for ordering details.
5. This product is Listed to applicable standards and requirements by UL.

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

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: 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.

Contact **Wall Industries** for further information:

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