

Wall Industries, Inc.

DTAM250 SERIES

90~264VAC Input Voltage Range
250 Watts, Single Output
Active PFC, IEC-320-C14 AC Inlet
AC/DC Medical Desktop Power Supplies



FEATURES

- Active PFC
 - 40mm Cooling Fan with Fan Speed Control
 - 250 Watts Output Power
 - Wide Input Voltage Range: 90~264VAC, 47~63Hz
 - IEC-320-C14 Input Inlet
 - Single Output
 - Over Voltage, Over Load, and Short Circuit Protection
 - Power Factor >0.9 at 115/230VAC and Full Load
 - RoHS Compliant
 - 100% Burn-in and Hi-pot Tested
 - High Reliability
 - Meets CEC and Energy Star Level V Requirements
 - Output Voltages Available from 12VDC to 48VDC
 - MTBF > 140,000 Hours
 - UL60601-1, TUV EN60601-1, CB IEC60601-1 Medical Safety Approvals
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DESCRIPTION

The DTAM250 series of medical AC/DC desktop switching power supplies provides 250 Watts of continuous output power. All models have a 90~264VAC input voltage range, an IEC-320-C14 AC inlet, a 40mm cooling fan with fan speed control, and active PFC. These supplies are protected against over voltage, over load, and short circuit conditions. These supplies are RoHS compliant and meet CEC and Energy Star Level V requirements. All models also have UL60601-1, CSA C22.2-No. 60601-1, TUV EN60601-1, and CB IEC60601-1 safety approvals. All units are 100% burn-in and hi-pot tested.

SPECIFICATIONS: DTAM200 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.

INPUT SPECIFICATIONS

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|---|---------------------------------------|
| Input Voltage Range | 90 - 264VAC (full range) |
| Input Frequency | 47 - 63Hz |
| Input Current (rms) | 3.5A at 90VAC max; 1.5A at 264VAC max |
| Power Factor | > 0.9 at full load and 115/230VAC |
| No Load Power Consumption (green functions) | < 500mW |

OUTPUT SPECIFICATIONS

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|--------------------------------------|--|
| Output Current | See Table |
| Output Voltage | See Table |
| Output Power | 250W max. |
| Voltage Regulation | ±5% |
| Ripple & Noise (<i>See Note 1</i>) | See Table |
| Hold Up Time | > 16ms typical at full load and 115VAC |

PROTECTION

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|--------------------------|-------------------|
| Short Circuit Protection | Auto recover |
| Over Voltage Protection | Latch, AC Recycle |
| Over Load Protection | Auto recover |

GENERAL SPECIFICATIONS

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|-----------------------|-----------------------------------|---------|
| Efficiency | > 87% at half load and 115/230VAC | |
| Withstand Voltage | Primary to Secondary | 5656VDC |
| | Primary to Frame Ground | 2121VDC |
| Earth Leakage Current | < 228µA at 264VAC | |

ENVIRONMENTAL SPECIFICATIONS

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|-----------------------|---|
| Operating Temperature | -20°C to +40°C |
| Storage Temperature | -20°C to +85°C |
| Humidity | 10% ~ 95% |
| Cooling | 40 mm cooling fan with fan speed control |
| MTBF | > 140,000 hours at full load and 25°C ambient temperature |

PHYSICAL SPECIFICATIONS

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|------------------------|--|
| Dimensions (L x W x H) | 7.42 x 4.11x 2.36 inches (188.5 x 104.5 x 60.0 mm) |
| Weight | 2.34 lbs (1060g) |
| AC Input | IEC-320-C14 Inlet |

SAFETY & EMI

| | |
|------------------|---|
| Safety Standards | UL60601-1, CSA C 22.2-No. 60601-1, TUV EN60601-1, CB IEC60601-1 |
| EMC Standards | EN60601-1-2, FCC Part 18 Class B, EN55011 Class B, CE |

All models meet CEC and Energy Star Level V requirements

MODEL SELECTION TABLE

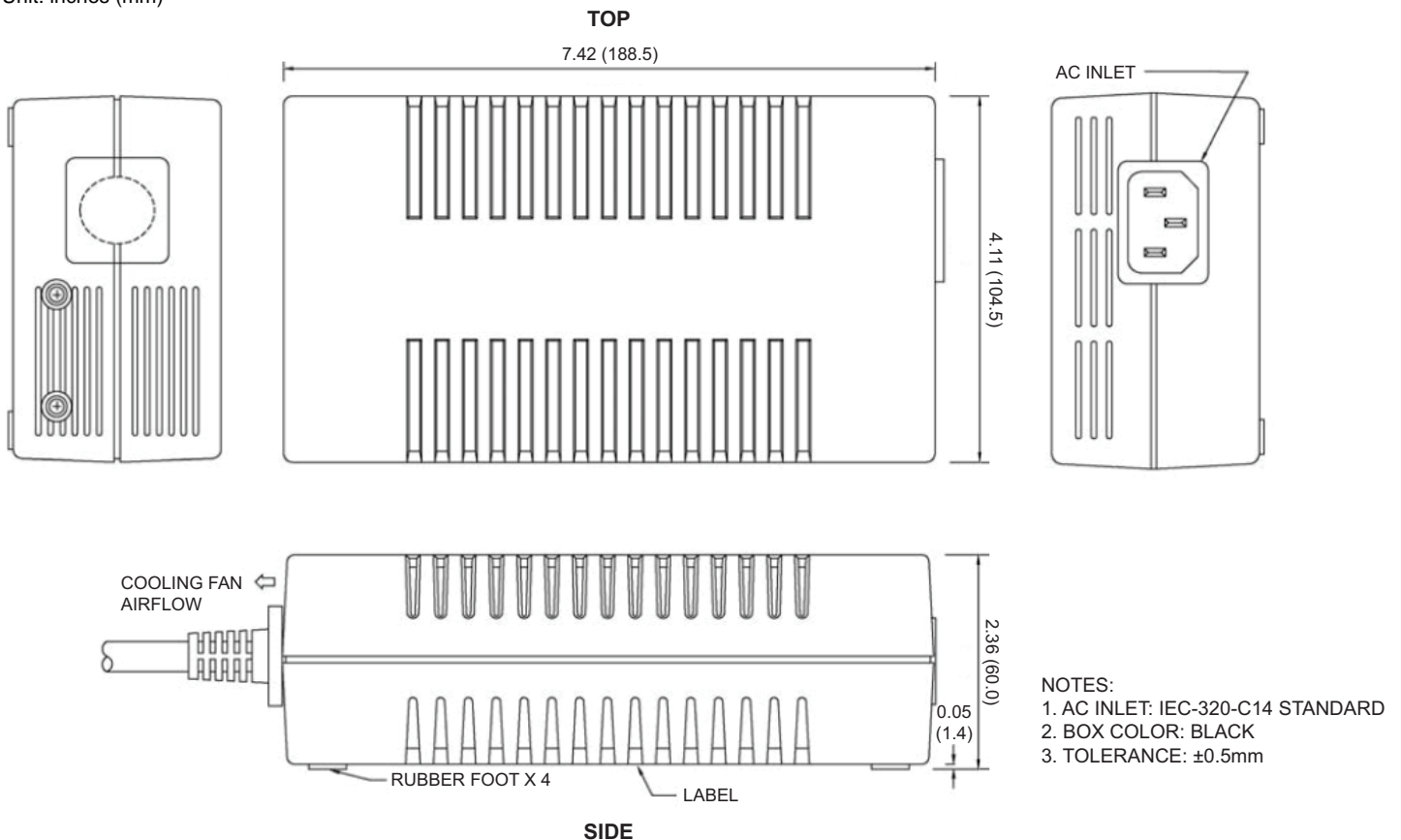
| Model Number | Input Voltage Range | Output Voltage | Output Current | Ripple & Noise ⁽¹⁾ | Output Power |
|------------------|---------------------|----------------|----------------|-------------------------------|--------------|
| DTAM-250A4-1Y12E | 90 ~ 264 VAC | 12 VDC | 20.83 A | 240mVp-p | 250W |
| DTAM-250A4-1Y16E | 90 ~ 264 VAC | 16 VDC | 15.63 A | 300mVp-p | 250W |
| DTAM-250A4-1Y19E | 90 ~ 264 VAC | 19 VDC | 13.16 A | 300mVp-p | 250W |
| DTAM-250A4-1Y20E | 90 ~ 264 VAC | 20 VDC | 12.5 A | 300mVp-p | 250W |
| DTAM-250A4-1Y24E | 90 ~ 264 VAC | 24 VDC | 10.42 A | 300mVp-p | 250W |
| DTAM-250A4-1Y36E | 90 ~ 264 VAC | 36 VDC | 6.94 A | 300mVp-p | 250W |
| DTAM-250A4-1Y48E | 90 ~ 264 VAC | 48 VDC | 5.21 A | 300mVp-p | 250W |

NOTES

1. Ripple & Noise is measured at 20MHz bandwidth with a tantalum 10µF in parallel with a 0.1µF ceramic capacitor.

MECHANICAL DRAWING

Unit: inches (mm)



STANDARD OUTPUT CABLE

1. 12 VDC Output Model: AWM 2464 #16AWG / 6C + SHIELDING, UL 80°C 300V VW-1, 800mm ±30mm (MIN)
16-48 VDC Output Models: AWM 2464 #16AWG / 6C + SHIELDING, UL 80°C 300V VW-1, 1000mm ±30mm (MIN)
2. Depends on customer's requirements.

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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| <u>Phone:</u> | ☎ (603)778-2300 |
| <u>Toll Free:</u> | ☎ (888)587-9255 |
| <u>Fax:</u> | ☎ (603)778-9797 |
| <u>E-mail:</u> | sales@wallindustries.com |
| <u>Web:</u> | www.wallindustries.com |
| <u>Address:</u> | 5 Watson Brook Rd. Exeter, NH 03833 |