

Wall Industries, Inc.

DTA100A-1Y240H

100W AC/DC Desktop Power Supply
90~264 Vac Input
24Vdc Output at 4.17A



FEATURES

- **Single output**
- **100% Burn-In**
- **Short Circuit Protection**
- **Over Voltage Protection**
- **Over Load Protection**
- **Active PFC Function**
- **IEC-320-C14 AC Inlet Connector**
- **EMC and RoHS Compliant**
- **CEC IV and Energy Star Level V Compliant**

DESCRIPTION

The DTA100A-1Y240H is a 100W, grounded, single phase, switching adapter with active PFC function. The DTA100A-1Y240H has a 24VDC single output, an input voltage range of 90~264Vac, and an IEC-320-C14 AC inlet connector. This supply is also protected against over load, over voltage, and short circuit conditions. In addition, this supply complies with worldwide safety requirements and electromagnetic compatibility requirements and meets EMC, CEC IV, Energy Star Level V, and RoHS requirements for desktop switching adapters.

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1. INPUT SPECIFICATIONS

Description	Min.	Typical	Max.	Condition
Input Voltage	90VAC	115/230VAC	264VAC	-
Input Current	-	-	2.5A	90VAC 50Hz
Line Frequency	47Hz	50/60Hz	63Hz	-
Inrush Current	-	-	150A	230VAC Cold Start
Efficiency	-	85%	-	115VAC at full load
Power Factor Correction	-	0.9	-	at full load

NOTE: ● Average efficiency over 87% with 25%, 50%, 75%, 100% load at 115/230VAC.
● No load input < 0.5W.

2. OUTPUT SPECIFICATIONS

2.1 STATIC DC LOAD, RIPPLE & NOISE

Nominal Voltage	Total Regulation	Output Current		Ripple & Noise
		Min.	Max.	
+24VDC	+5%, -2%	0A	4.17A	480mVp-p

NOTE: ● 20MHz bandwidth ripple & noise is measured by using a 0.1µF C.C. and a 10µF/50V E.C. bypassed at the output connector.
● Regulation shows the percentage of the absolute value of the nominal output voltage.
● Total maximum output power is 100W.

2.2 HOLD UP TIME

The power supply unit should maintain its proper output voltage within voltage specifications for at least 16 milliseconds after losing input power under the condition of typical input with full loading.

2.3 OVERSHOOT AT TURN-ON/TURN-OFF

Any overshoots during turn-on/turn-off should be less than ±5% of the nominal output voltage. No voltage of opposite polarity should be present on any output during turn-on or turn-off.

3. PROTECTION

3.1 OVER VOLTAGE PROTECTION

If any over voltage occurs, the power supply should latch off before any output exceeds its limit shown in the table below.

Nominal Voltage	Over Voltage Range	
	From	To
+24VDC	+26.4VDC	+31.2VDC

3.2 SHORT CIRCUIT PROTECTION

Short circuit occurrence on the output should not cause any damage to the power supply but should shut down the power supply. The power supply will automatically recover after the short circuit condition is removed.

3.3 OVER LOAD PROTECTION

Over load protection will come into effect when overloading reaches 110%~160% max. load. The power supply will automatically recover after the over load condition is removed.

4. ENVIRONMENTAL SPECIFICATIONS

4.1 OPERATING

Temperature: 0°C to 40°C
Relative Humidity: 20% to 90%, non-condensing

4.2 SHIPPING AND STORAGE

Temperature: -10°C to +70°C
Relative Humidity: 20% to 90%, non-condensing

4.3 TEMPERATURE COEFFICIENT

The temperature coefficient of all outputs is $\pm 0.05\%/^{\circ}\text{C}$ maximum.

5. SAFETY REQUIREMENTS

The adapter must comply with UL/CSA/TUV/IEC60950-1 standards.

5.1 DIELECTRIC WITHSTAND VOLTAGE

--- Primary to Secondary: 4242VDC for 4 seconds
--- Primary to Frame Ground: 2121VDC for 4 seconds

5.2 ISOLATION RESISTANCE

--- Primary to Secondary: 20M Ω min / 500VDC
--- Primary to Frame Ground: 20M Ω min / 500VDC

6. ELECTROMAGNETIC COMPATIBILITY

Tests for conformance to this requirement will be performed with host system.

6.1 FCC REQUIREMENTS

This adapter complies with the FCC “Class B” limits.

6.2 CE REQUIREMENTS

The adapter complies with the “Class B” requirements of EN55022 & EN55024 for EMS.

7. RELIABILITY

MTBF: 140,000 hours min. at max load for 25°C ambient temperature.

8. BURN-IN TEST

100% burn-in tested at max. load under 40±5°C.

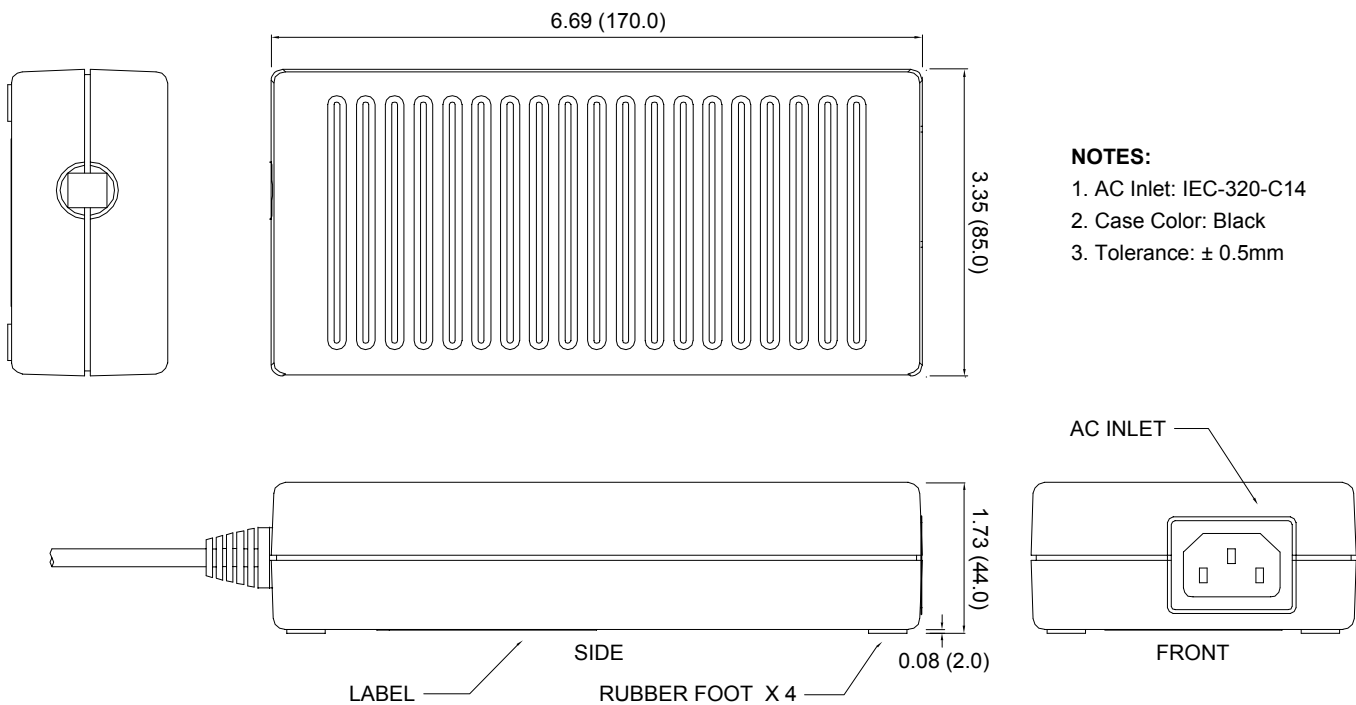
9. MECHANICAL DIMENSIONS

9.1 DIMENSIONS: 6.69(L) x 3.35(W) x 1.73(H) inches
170(L) X 85.0(W) X 44.0(H) mm

9.2 INPUT CONNECTOR: IEC-320-C14

9.3 OUTPUT CONNECTOR: Depends on customer's requirements.

Unit: inches (mm)



COMPANY INFORMATION

Wall Industries, Inc. has created custom and modified units for over 40 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:

<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