

# AC-DC Adapter

## 24V 150W / ADT-150A24AA H-A

# ADT-150A



### Highlights & Features

- Meet efficiency DoE Level VI & CoC Tier 2
- No load power consumption < 0.15 W
- Universal AC input / Full range
- Fully enclosed plastic case
- Protection: short circuit / over voltage / overload/ over temperature

### Safety Standards



CB Certified for worldwide use

**Model Number:** ADT-150A24AA H-A  
**Unit Weight** 405 ±10 grams (14.29±0.35 ounces)  
**Dimensions (L×W×H):** 160 x 76.2 x 25.8 mm

### General Description

The ADT Series of AC-DC desktop adapter in compact size. ADT-150A24AA H-A meet the DoE Level VI and CoC Tier 2 energy efficiency requirements with levels up to 92% and the extremely low no-load power consumption below 0.15W. The series conform to major international safety standards according to IEC/EN/UL 62368-1 and IEC/EN/UL 60950-1 approval for ITE. In addition, they also meet the EMI approvals to EN 55032 class B.

### Model Information

Model Number	Input Voltage Range	Efficiency Level	Rated Output Voltage	Rated Output Current
ADT-150A24AA H-A	90-264Vac	Level VI & CoC Tier2	24V	6.25A

### Model Numbering

ADT -	150	A	24	A	A	H -	A
Desktop Adapter for ITE application	Max wattage	Family Code	Output Voltage 24 for 24V	A : Desktop	Input Connector A : C6	Output Connector H : Barrel type O.D: 5.5 mm, I.D: 2.5 mm, length: 11.0 mm	Standard

# AC-DC Adapter

## 24V 150W / ADT-150A24AA H-A

### Specifications

#### Input Ratings / Characteristics

Nominal Input Voltage	100-240Vac	
Input Voltage Range	90-264Vac	
Nominal Input Frequency	50-60Hz	
Input Frequency Range	47-63Hz	
Input Current (max)	115Vac	1.85 A
	230Vac	1.0 A
Efficiency at 100% Load	115Vac	91.0% typ.
	230Vac	92.0% typ.
Average Efficiency (min)	89% @ 115Vac & 230Vac	
Efficiency @ 10% load	79% @ 115Vac & 230Vac	
No Load Power Consumption (max)	0.15W @ 115Vac & 230Vac	
Power Factor @ 100% load (min)	0.9 @ 230Vac	
Inrush Current	No damage	
Leakage Current @ 240Vac/50Hz (max)	250uA	

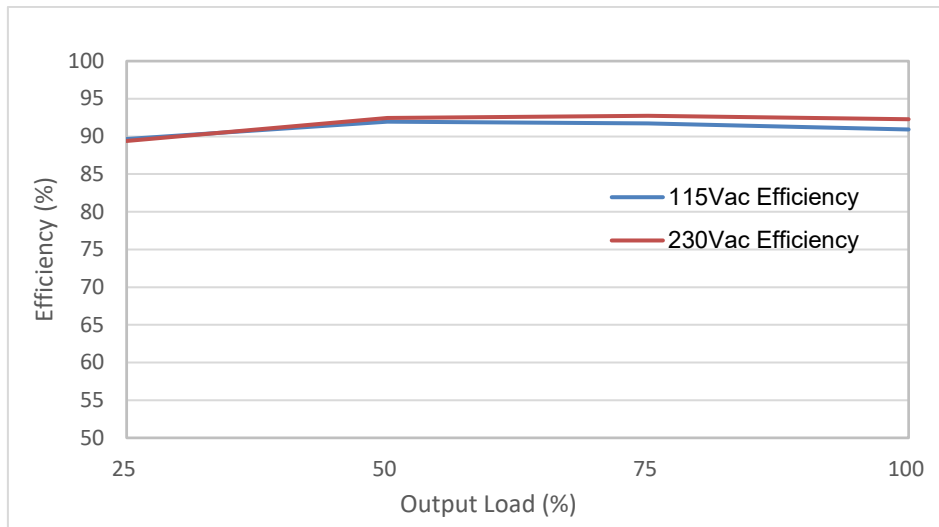


Fig 1. ADT-150A24AA H-A Efficiency versus Output Load

# AC-DC Adapter

## 24V 150W / ADT-150A24AA H-A

### Output Ratings / Characteristics

Nominal Output Voltage	24V	
Output Current	6.25A	
Output Power	150W	
Line Regulation	± 0.5%	
Load Regulation	± 3.0%	
PARD* (20MHz)	0 to 40°C	240 mV pk-pk
	-10 to 0°C	480 mV pk-pk
Start-up Time	1000 ms typ. @ 115Vac 500 ms typ. @ 230Vac	
Rise Time (max)	40ms @ nominal input, full load	
Hold-up Time (typ.)	30ms @ 115Vac, full load	
Transient Responses	± 5% @ 0.1A -50% & 50% -100% load change, Slew rate 2.5A/us ,100 to 10KHz, 50% Duty Cycle	

\*PARD is measured with an AC coupling mode, and in parallel with 0.1uF ceramic capacitor & 47uF electrolytic capacitor.

### Mechanical

Case	PC	
Dimensions (L × W × H)	160 x 76.2 x 25.8 mm (6.3 x 3 x 1.02 inch)	
Unit Weight	405 ±10 grams (14.29±0.35 ounces)	
Indicator	N/A	
Cooling System	Convection	
Output Cable Specification	Connector	Barrel type (O.D: 5.5 mm, I.D: 2.5 mm, length: 11 mm)
	Length	UL1571 #17AWG , 1800 mm
Input Socket	C6	

# AC-DC Adapter

## 24V 150W / ADT-150A24AA H-A

### Environment

Surrounding Temperature	Operating	-10°C to +60°C
	Storage	-40°C to +85°C
Power De-Rating		>40°C de-rated by 2.5%/°C
Operating Humidity		5%-95% RH (non-condensing)
Operating Altitude		5,000 meters (16400 feet)
Ball Impact Test		Test height 130cm, 1 sample 1 time, Steel Ball 500g, Concrete floor
Drop Test		Test height 100cm, 6 face for each sample, concrete floor Function test pass after drop test
Shock Test (Non-Operating)		50G, 11ms, 1 shock for each direction
Vibration (Non-Operating)		5-500Hz, 2.09Grms, 20mins, one cycle for each three axis

### Protections

Overvoltage (max)	33V, Latch mode
Overload / Overcurrent (max)	120-180% , Latch
Over Temperature	Latch Mode
Short Circuit	Latch Mode
Pollution Degree	2
Protection Against Shock	Class I with function earth

### Reliability Data

MTBF	> 300,000 hrs. per Telcordia SR-332 at Input: 115Vac, Output: 100% load, Ta: 25°C
Expected Cap Life Time	5 years (50% load @ 25°C)

# AC-DC Adapter

## 24V 150W / ADT-150A24AA H-A

### Safety Standards / Directives

Electrical Safety		IEC/UL/EN 60950-1 ; IEC/UL/EN 62368-1
		BSMI CNS14336-1
		CCC GB4943.1-2011
		PSE J60950-1 (H29)
		KC K60950-1
CE		Comply with EMC Directive 2014/30/EU and the Low Voltage Directive 2014/35/EU
Material and Parts		RoHS Directive 2011/65/EU compliant
Galvanic Isolation	I/P to O/P	3000Vac

### EMC

EMC / Emissions		CISPR /EN 55032 Class B BSMI CNS13438 GB/T9254-2008 KN32
Harmonic Current Emissions	IEC61000-3-2	Class D ; GB17625.1-2003
Immunity to		EN 55024; KN35
Voltage Flicker	IEC61000-3-3	
Electrostatic Discharge	IEC61000-4-2	Level 4 Criteria A <sup>1)</sup> Air Discharge: 15kV Contact Discharge:8kV
Radiated Field	IEC61000-4-3	Level 2 Criteria A <sup>1)</sup> 80MHz-1GHz, 3V/m , 80% AM(1KHz)
Electrical Fast Transient / Burst	IEC61000-4-4	Level 2 Criteria A <sup>1)</sup> : 1kV
Surge	IEC61000-4-5	Level 3 Criteria A <sup>1)</sup> Common Mode <sup>4)</sup> : 2kV Differential Mode <sup>5)</sup> : 1kV
Conducted	IEC61000-4-6	Level 2 Criteria A <sup>1)</sup> 150kHz-80MHz, 3Vrms, Sine Wave, 80%, AM modulation
Power Frequency Magnetic Fields	IEC61000-4-8	Level 1 Criteria A <sup>1)</sup> Magnetic field strength 1A/m
Voltage Dips	IEC61000-4-11	Voltage dips 70% reduction/0.5 periods (Criterion B <sup>2)</sup> ) 40% reduction/5 periods (Criterion C <sup>3)</sup> ) Voltage short interruptions 5% reduction/250 periods (Criterion C <sup>3)</sup> )

1) Criteria A: Normal performance within the specification limits

2) Criteria B: Output out of regulation, or shuts down during test. Automatically restore to normal operation after test.

3) Criteria C: PSU shuts down during test, but need operator to reset.

4) Asymmetrical: Common mode (Line to earth)

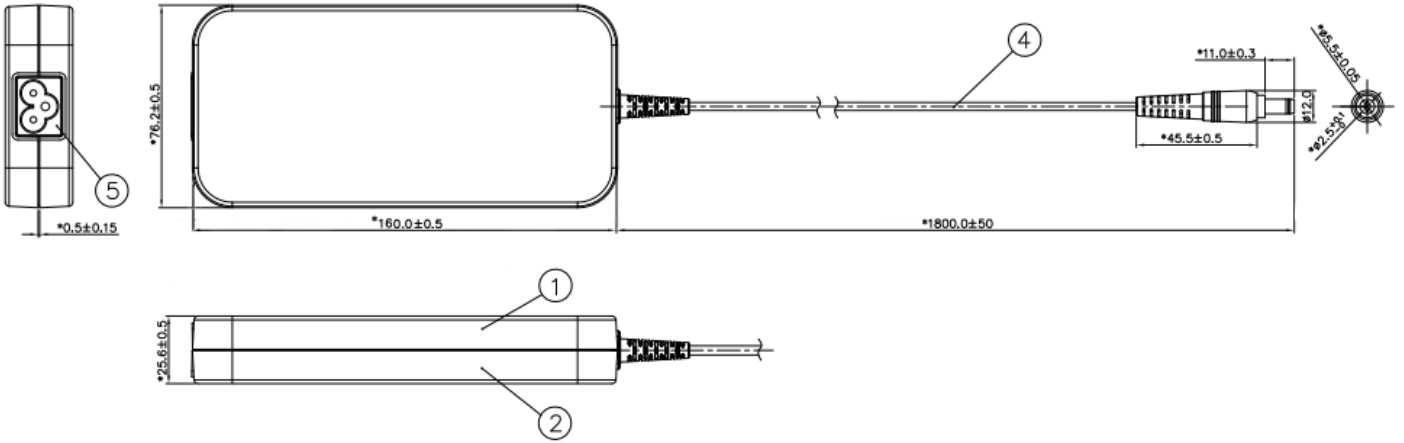
5) Symmetrical: Differential mode (Line to line)

# AC-DC Adapter

## 24V 150W / ADT-150A24AA H-A

### Dimensions

L x W x H: 160 x 76.2 x 25.8 mm (6.3 x 3.0 x 1.02 inch)



### Engineering Data

Output Load De-rating V.S. Surrounding Air Temperature

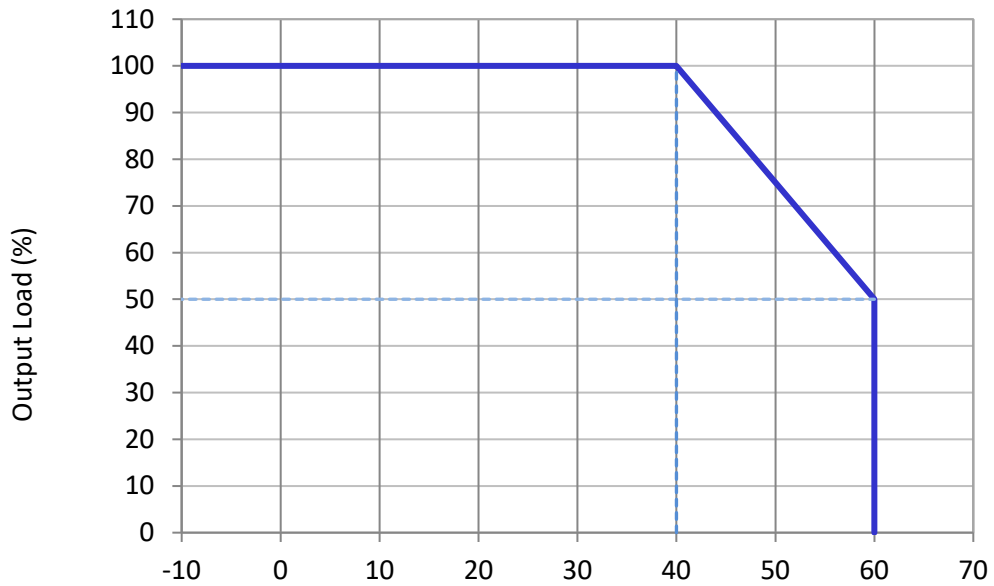


Fig. 1 De-rating for All Mounting Orientation  
 > 40°C de-rate power by 2.5% / °C

# AC-DC Adapter

## 24V 150W / ADT-150A24AA H-A

### Others

#### Attention

Delta provides all information in the datasheets on an "AS IS" basis and does not offer any kind of warranty through the information for using the product. In the event of any discrepancy between the information in the catalog and datasheets, the datasheets shall prevail (please refer to [www.DeltaPSU.com](http://www.DeltaPSU.com) for the latest datasheets information). Delta shall have no liability of indemnification for any claim or action arising from any error for the provided information in the datasheets. Customer shall take its responsibility for evaluation of using the product before placing an order with Delta.

Delta reserves the right to make changes to the information described in the datasheets without notice.