



Specification for Approval

Customer : 株式会社アコン

Part Name : AC ADAPTER

Description : 24.0 Volts / 8.3 Amps

Model No. : ATS200A1-P240 (Level VI)

Customer P / N : ATS200A1-P240-PLT4PIN

Product P / N :

Issued Date : 04 - Nov. - 2025

Version : 01

Issued Stamp :

Customer's approval signature

ADAPTER TECHNOLOGY CO.,LTD.

Office (Taiwan) : 6F,No.258, Liancheng Rd.,Zhonghe District,New Taipei City 235,Taiwan (R.O.C.)

TEL : +886-2-8226-2279

FAX : +886-2-8226-2238

E-mail : service@adaptech.com.tw ; service_tw@adaptech.com.tw

Factory (China) : BOAYANG ELECTRONICS CO., LTD.

(Philippines) : Adapter Technology Co., Ltd - Philippines Corp.

Elecsys Manufacturing Corporation



199.2 W
Switching Power Adapter
SPECIFICATION

Model No. : **ATS200A1-P240 (Level VI)**

Description : **24.0 Volts / 8.3 Amps**

Part No. :

Version : **01**

Date : **04 – Nov. – 2025**

Approved	Reviewed	Checked	Prepared	Sales



1. Feature :

- ◆ **Input** : Universal 100 ~ 240 Vac / 50 ~ 60 Hz Input, without any slide switch.
- ◆ **Output** : +24.0 V / 0 ~ 8.3A
- ◆ **Case Dimension** : 175.2(L) * 74.0(W) * 42.0(H) mm ± 1 mm
- ◆ **Efficiency** : Eff_(av) ≥ 88%
Eff ≥ 79%@10% load
- ◆ **Safety** : UL / CUL / GS / PSE / BSMI / UKCA
- ◆ **EMC** : CE / FCC (conduction & radiation Class B)
- ◆ **Protection** : OVP (Over Voltage Protection) 、 SCP (Short Circuit Protection) 、
OCP (Over Current Protection) 、 OTP (Over Temperature Protection)
- ◆ **Suitable for usage at I.T.E., industrial controller**
- ◆ **Meet DoE Level VI/ ErP (Lot 7) / GEMS / NRCan.**

2. Input :

2.1 Voltage	Universal 100 ~ 240 Vac , single phase
2.2 Frequency	50 ~ 60 Hz
2.3 Current	2.4 A Max.
2.4 Inrush Current	100 A max. / 230 Vac (Cold start at 25°C , full load) (ac source chroma 6530)
2.5 Efficiency	Eff _(av) ≥ 88% (At 115 Vac & 230 Vac) Eff ≥ 79%@10% load
2.6 Power Consumption	Pi ≤ 0.21 W (At 115 Vac & 230 Vac & At No load)
2.7 Power Factor (PF)	Pi ≥ 0.9 (At 115 Vac & 230 Vac, At Full load)

$$\text{※Eff}_{(av)} = \frac{E_1 + E_2 + E_3 + E_4}{4}$$

E_1 =efficiency with 25% rated load , E_2 = efficiency with 50% rated load
 E_3 =efficiency with 75% rated load , E_4 = efficiency with 100% rated load

3. Output :

3.1 DC Output	Voltage	+24.0 V ± 5%
	Current	8.3 A Max.
	Regulation	22.8 Vmin. ~ 24.0 Vtyp. ~ 25.2 Vmax.
	Ripple & Noise	240 mVp-p max.
	Total Power	199.2 W max.

Remark : For ripple & noise measurement, use a 20MHz bandwidth frequency oscilloscope, and add a 0.1μF multilayer Cap. and a Low ESR Electrolytic Cap. (47 μF) at output connector terminals. (At nominal line voltage, full load)



4. Protection :

4.1 Over Voltage Protection (OVP)	Vout * 150% max., latch off.(50% Load)
4.2 Over Current Protection(OCP)	Iout * 180% max. Autorecovery
4.3 Short Circuit Protection (SCP)	Autorecovery
4.4 Over Temperature Protection (OTP)	Autorecovery

5. Safety requirement :

5.1. Dielectric strength : Cut off current 10 mA

(1)	Primary to secondary	3000 Vac (RMS) for 1 minute
(2)	Primary to Frame Ground	1770 Vac (RMS) for 1 minute
※ Secondary return isolated to FG		

5.2. Insulation resistance :

(1)	Primary to secondary	10 MΩ for 500 Vdc
(2)	Primary to Frame Ground	10 MΩ for 500 Vdc
※ Secondary return isolated to FG		

5.3 Leakage Current : Less than 5 mA (RMS) or 7.07 mA (Peak)

5.4 Grounding test : < 0.1 Ω

6. Operation and environment performance :

6.1 Temperature range

Operating	-20 °C ~ +40 °C
Storage	-20 °C ~ +80 °C

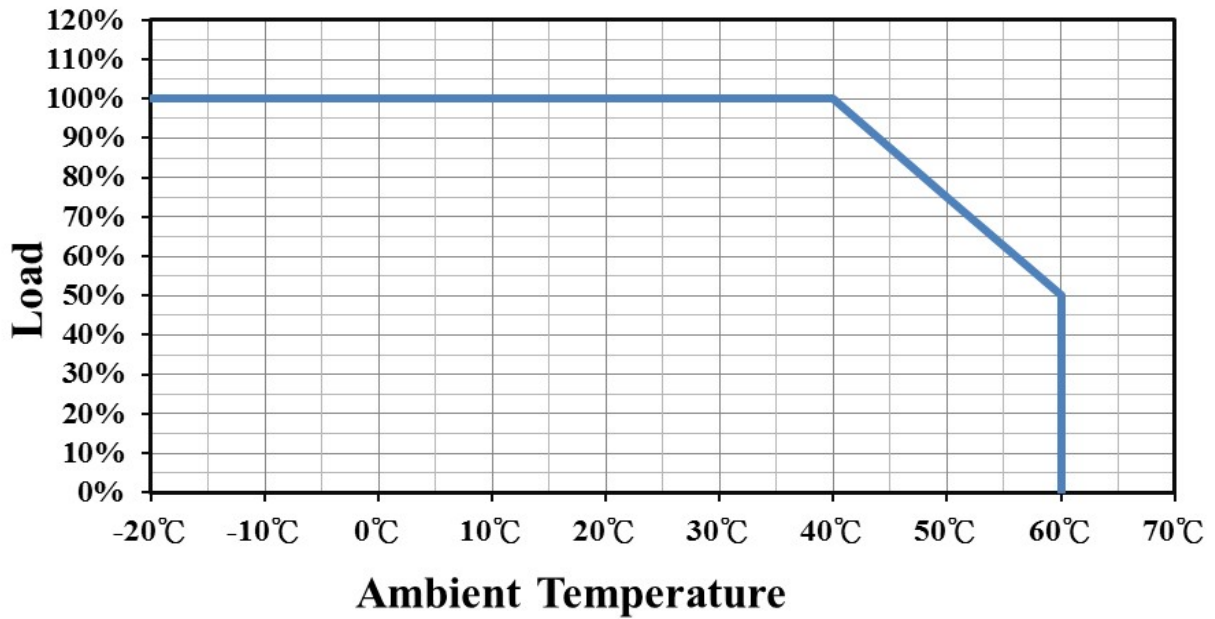
6.2 Humidity range (non-condensing)

Operating	20 % ~ 80 % RH
Storage	10 % ~ 90 % RH

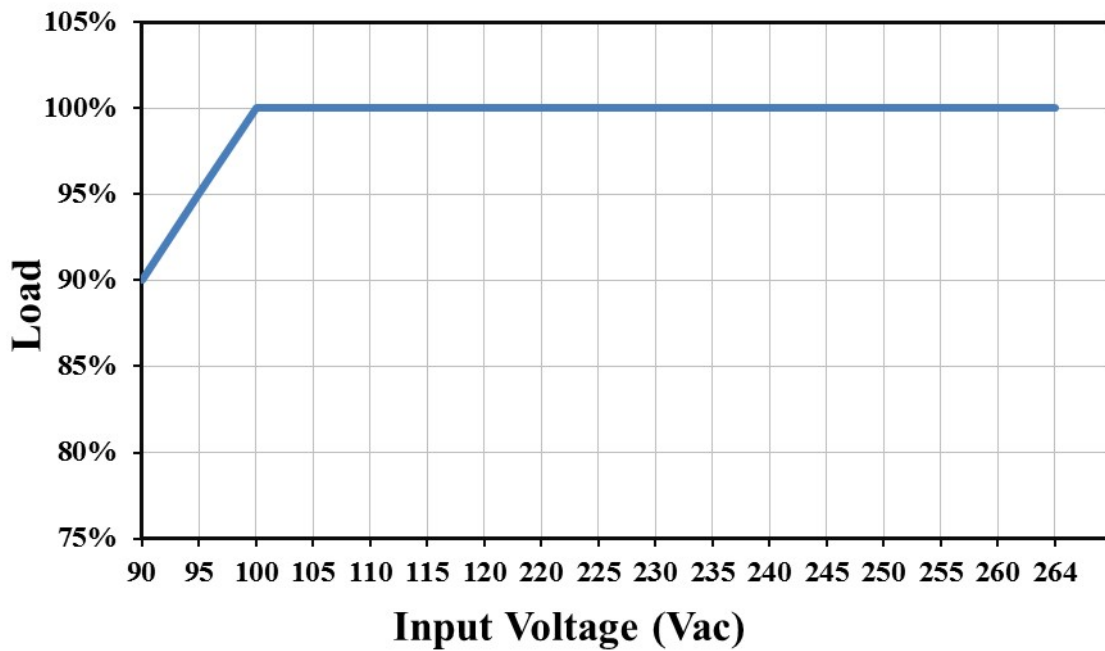
6.3 Cooling : By natural air.

7. M.T.B.F. : 300,000Hrs.(Calculated Hours at 25°C , By Telcordia SR-332)

8. Derating Curve :



9. Static Characteristics :

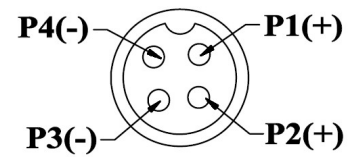


10. Mechanical :

10.1 Weight : 738 g Ref.

10.2 Cable type : Black UL2464 18AWG*4C
(wire + plug)

Plug : 4PIN(MISUMI:PLT-164-P-R)



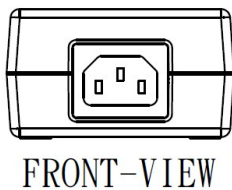
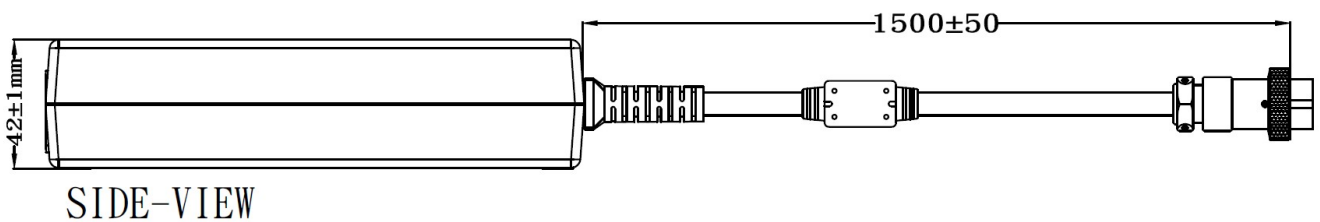
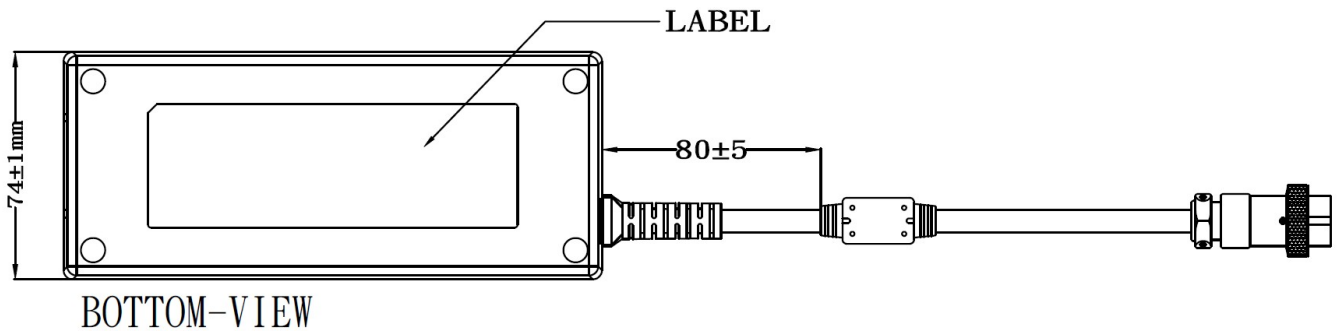
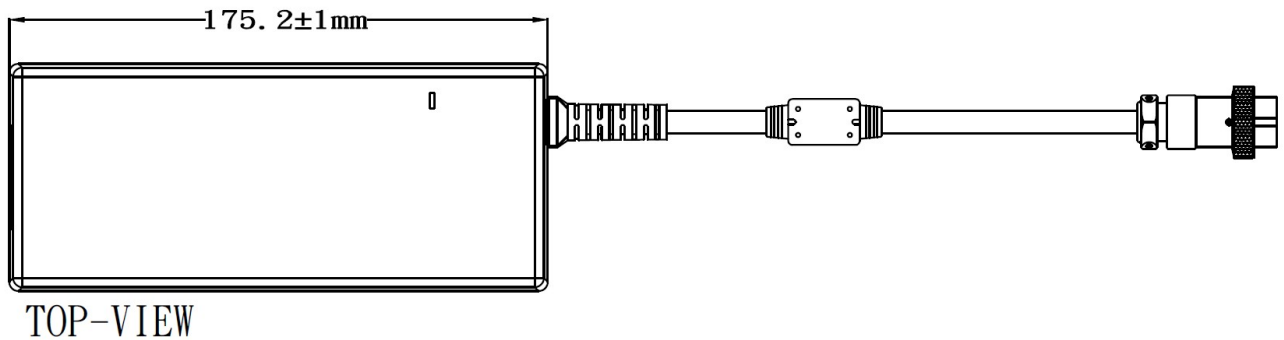
Output cable plug pin assignment

10.3 Cable length : 1500 mm

10.4 Case dimension : 175.2 (L) * 74.0 (W) * 42.0 (H) mm \pm 1 mm

10.5 Material flammability : UL 94V-0

10.6 External appearance : As drawing below (scale \rightarrow mm)



11. Label :

- 11.1 Label materials : Metalized polyester label (silver gloss)
- 11.2 Color : Black background with silver printing
- 11.3 Label dimension : 39.0 (L)mm * 119.0 (W)mm ± 0.2 mm
- 11.4 Label thickness : 75#

100%

ADAPTER TECH.

AC ADAPTER 交換式電源供應器
 Model (型號) : ATS200A1-P240
 P/N : ATS200A1-P240-PLT4PIN
 INPUT (輸入) : 100-240V ~ 50-60Hz 2.4A MAX.
 OUTPUT (輸出) : 24.0V \equiv 8.3A 199.2W
 FOR INDOOR USE ONLY

For use with information technology equipment only
 Laite on Liitettävä suojakoskettimilla varustettuun pistorasiaan
 Apparätet må tilkobles jordet stikkontakt
 Apparaten skall anslutas till jordat uttag

PS E JET 株式会社アコン
 I/P : 100-240V AC 50-60Hz 220VA-235VA 2.4A MAX.
 O/P : 24V DC 8.3A 必ず接地接続を行って下さい。

UL US LISTED
 POWER SUPPLY
 60JJ
 E225703

D/C:2544
 MADE IN CHINA
 ID NO. A
 XXX

"XXX"

Label supplier's code
 It is accurate that the number of words depends on the real finished product

160%

ADAPTER TECH.

AC ADAPTER 交換式電源供應器
 Model (型號) : ATS200A1-P240
 P/N : ATS200A1-P240-PLT4PIN
 INPUT (輸入) : 100-240V ~ 50-60Hz 2.4A MAX.
 OUTPUT (輸出) : 24.0V \equiv 8.3A 199.2W
 FOR INDOOR USE ONLY

For use with information technology equipment only
 Laite on Liitettävä suojakoskettimilla varustettuun pistorasiaan
 Apparätet må tilkobles jordet stikkontakt
 Apparaten skall anslutas till jordat uttag

PS E JET 株式会社アコン
 I/P : 100-240V AC 50-60Hz 220VA-235VA 2.4A MAX.
 O/P : 24V DC 8.3A 必ず接地接続を行って下さい。

UL US LISTED
 POWER SUPPLY
 60JJ
 E225703

D/C:2544
 MADE IN CHINA
 ID NO. A
 XXX

A. Line regulation test

Test result :

Test condition	Spec.	Reading 1	Reading 2	Reading 3
90 Vac / 50 % Load	22.8 V ~ 25.2 V	23.68 V	23.70 V	23.67 V
115 Vac / 50 % Load	22.8 V ~ 25.2 V	23.68 V	23.70 V	23.67 V
132 Vac / 50 % Load	22.8 V ~ 25.2 V	23.68 V	23.70 V	23.67 V
180 Vac / 50 % Load	22.8 V ~ 25.2 V	23.68 V	23.70 V	23.67 V
230 Vac / 50 % Load	22.8 V ~ 25.2 V	23.68 V	23.70 V	23.67 V
264 Vac / 50 % Load	22.8 V ~ 25.2 V	23.68 V	23.70 V	23.67 V

B. Efficiency test

Test result :

Test condition	Spec.	Reading 1	Reading 2	Reading 3
115 Vac	88% Min.	92.23 %	92.30 %	92.25 %
230 Vac	88% Min.	93.25 %	93.28 %	93.27 %
230Vac (10% Load)	79 %Min. (10% Load)	84.87 %	84.90 %	84.90 %

$$\text{Eff (av)} = \frac{E_1 + E_2 + E_3 + E_4}{4}$$

E_1 =efficiency with 25% rated load ; E_2 = efficiency with 50% rated load
 E_3 =efficiency with 75% rated load ; E_4 = efficiency with 100% rated load

C. Load regulation test

Test result :

Test condition	Spec.	Reading 1	Reading 2	Reading 3
115 Vac / 0 % Load	22.8 V ~ 25.2 V	24.01 V	24.03 V	24.00 V
115 Vac / 50 % Load	22.8 V ~ 25.2 V	23.68 V	23.70 V	23.67 V
115 Vac / 100 % Load	22.8 V ~ 25.2 V	23.47 V	23.49 V	23.46 V
230 Vac / 0 % Load	22.8 V ~ 25.2 V	24.01 V	24.03 V	24.00 V
230 Vac / 50 % Load	22.8 V ~ 25.2 V	23.68 V	23.70 V	23.67 V
230 Vac / 100 % Load	22.8 V ~ 25.2 V	23.47 V	23.49 V	23.46 V

D. Ripple & Noise test

Test result :

Test condition	Spec.	Reading 1	Reading 2	Reading 3
115 Vac / 100 % Load	240 mV _{p-p} max.	83.2 mV _{p-p}	85.6 mV _{p-p}	86.6 mV _{p-p}
230 Vac / 100 % Load	240 mV _{p-p} max.	72.6 mV _{p-p}	74.4 mV _{p-p}	75.5 mV _{p-p}



E. Inrush current

Test result :

Test condition	Spec.	Reading 1	Reading 2	Reading 3
230 Vac / 100 % Load	100 A max.	80A	79 A	81 A

F. Over voltage protection

Test result :

Test condition	Spec.	Reading 1	Reading 2	Reading 3
115 Vac / 50% Load	Vout * 150% max.	112 %	112 %	112 %
230 Vac / 50% Load	Vout * 150% max.	112 %	112 %	112 %

G. Over current protection

Test result :

Test condition	Spec.	Reading 1	Reading 2	Reading 3
115 Vac	Iout * 180% Max.	127 %	127 %	127 %
230 Vac	Iout * 180% Max.	127 %	127 %	127 %

H. Short circuit protection

Test result :

Test condition	Spec.	Reading 1	Reading 2	Reading 3
115 Vac / 100 % Load	Autorecovery	OK	OK	OK
230 Vac / 100 % Load	Autorecovery	OK	OK	OK

I. Input power consumption (no load)

Test result :

Test condition	Spec.	Reading 1	Reading 2	Reading 3
230 Vac / 0 % Load	≤ 0.21 W	0.12 W	0.12 W	0.12 W

J. Power factor

Test result :

Test condition	Spec.	Reading 1	Reading 2	Reading 3
115 Vac / 100 % Load	≥ 0.9	0.99	0.99	0.99
230 Vac / 100 % Load	≥ 0.9	0.95	0.95	0.95



Efficiency Test Report

- | | | | | | |
|----|---------------------------|------------------------------|-------|-------|---------|
| A. | Model Number | : ATS200A1-P240 | 24.0V | 8.30A | 199.20W |
| B. | DC Power Cord | : UL2464 18AWG * 4C, 1.5M | | | |
| C. | Average Efficiency | : | | | |
| | Erp (LOT 7) | 88.0% | | Min. | |
| | DoE Level VI | 88.0% | | Min. | |
| | GEMS Level VI | 88.0% | | Min. | |
| | CoC Tier 2 | 89.0% | | Min. | |
| | CoC Tier 2 (10% Load) | 79.0% | | Min. | |
| D. | NO Load Power Consumption | : | | | |
| | Erp (LOT 7) | 0.21W Max. | | | |
| | DoE Level VI | 0.21W Max. | | | |
| | GEMS Level VI | 0.21W Max. | | | |
| | CoC Tier 2 | 0.15W Max. | | | |
| E. | Testing Dequpiment | : | | | |
| | a. AC Power Source | : " Chroma " 61604 | | | |
| | b. Electronic Load | : " PRODIGIT " 3311F | | | |
| | c. Power Meter | : " YOKOGAWA " WT-310A | | | |
| | d. Digital Meter | : " FLUKE " 45 | | | |
| F. | AC Input Voltage | : 115Vac/60Hz | | | |

Load Conditions	100% * I ₀	75% * I ₀	50% * I ₀	25% * I ₀	10% * I ₀	0% * I ₀
Reported Quantity						
Rms Output Current(mA)	8300mA	6225mA	4150mA	2075mA	830mA	0mA
Rms Output Voltage(V)	23.55V	23.66V	23.77V	23.87V	23.94V	23.98V
Active Output Power(W)	195.48W	147.29W	98.64W	49.54W	19.87W	0.00W
Rms Input Voltage(V)	115V	115V	115V	115V	115V	115V
Rms Input Current(A)	1.878A	1.410A	0.952A	0.509A	0.235A	0.068A
Rms Input Power(W)	212.35W	158.87W	106.19W	54.28W	23.50W	0.10W
True Power Factor (PF)	0.988	0.983	0.973	0.929	0.870	0.007
Total Harmonic Distortion of the input current						
Power Consumed by UUT(W)	16.87W	11.58W	7.55W	4.74W	3.63W	0.10W
Active Efficiency	92.054%	92.712%	92.889%	91.266%	84.539%	*
Average Efficiency	92.230%				84.539%	*

- G. AC Input Voltage : 230Vac/50Hz

Load Conditions	100% * I ₀	75% * I ₀	50% * I ₀	25% * I ₀	10% * I ₀	0% * I ₀
Reported Quantity						
Rms Output Current(mA)	8300mA	6225mA	4150mA	2075mA	830mA	0mA
Rms Output Voltage(V)	23.55V	23.66V	23.77V	23.87V	23.94V	23.98V
Active Output Power(W)	195.49W	147.29W	98.64W	49.54W	19.87W	0.00W
Rms Input Voltage(V)	230V	230V	230V	230V	230V	230V
Rms Input Current(A)	0.950A	0.728A	0.511A	0.301A	0.187A	0.111A
Rms Input Power(W)	208.43W	156.59W	105.18W	54.20W	23.41W	0.12W
True Power Factor (PF)	0.956	0.936	0.896	0.785	0.545	0.002
Total Harmonic Distortion of the input current						
Power Consumed by UUT(W)	12.94W	9.30W	6.54W	4.66W	3.54W	0.12W
Active Efficiency	93.790%	94.064%	93.782%	91.401%	84.872%	*
Average Efficiency	93.259%				84.872%	*

Tester : Jeff