

APPROVAL SHEET

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|---------------------------------|-----------------------|
| CUSTOMER | ltuner |
| CUSTOMER P/N | |
| DESCRIPTION | 12V/10.83A |
| EDAC MPN | EA11703A(TD01) |
| EDAC MODEL NO FOR SAFETY | EA11703A-1200 |
| DATE | 2021-03-09 |
| REVISION | 0 |

| | | | |
|---------------------------|-----------------------|-----------------------------------|---------------------------------------|
| APPROVED | DESIGN | PREPARE | RoHS |
| 葉慶兵 | 李富強 | 李富強 | |
| CONCLUSION 判定結果 | APPROVED 承認 | CONDITON APP'D 有條件承認 | CUSTOMER'S SIGNATURE: 客戶簽章: |



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SUBJECT: SCOPE OF DOCUMENT

CONTAINS :

1-0. General Description

2-0. Input Requirements

3-0. Output Requirements

4-0. Reliability

5-0. Environment

6-0. Safety

7-0. Mechanical Characteristics

1-0. General Description

The purpose of the document is to specify a Single phase AC input, single output switching power supply. This specification is suitable for: EA11703A Series

This product is AC to DC switching power transfer device, it can provide for a 12V, 10.83A max & 130W max DC output with constant voltage source.

This Specification defines the input, output, performance characteristics, environment, noise and safety requirement for a power supply.

2-0. Input Requirements

2-1. Input Voltage

Rated Voltage 100-240 Vac +/- 10% full range.

Normal line input 115Vac/60Hz, 230Vac/50Hz.

2-2. Input Frequency

47~63 Hz

2-3. Input Current

a. 2.0A(Max.) @ 115Vac input with full load.

b. 1.0A(Max.) @ 230Vac input with full load.

2-4. Energy saving standards:

2-4-0. Designed to meet the following standard :

DoE level VI

2-4-1. Efficiency

Efficiency \geq 88% (AVG.) normal input & 25%, 50%, 75% ,100% of max output load

2-4-2 No Load Power Consumption.

No Load Watt \leq 0.21W at normal line input.

2-5. Configuration

3-wire AC input (Line, Neutral, F.G)

2-6. Input Fuse

The hot line side of the input shall have a fuse, rating (5.0A/250V)

2-7. Inrush Current

\leq 60A at 110 Vac At cold start, maximum load.

\leq 120A at 220 Vac At cold start, maximum load.

2-8. Line Regulation

This line regulation is less than \pm 1%, of rated output voltage @ full load.

2-9. Hold Up Time

≥ 10 mSec. @ Normal line, with full load.

2-10. Rise Time

≤ 50 mSec., @ 100-240VAC input, with full load from 10% to 90% of output voltage.

2-11. Turn-ON Time

The output voltage should rise to 90% of rated output voltage in less than 3 SEC. from AC apply to 110Vac start up.

2-12. Harmonic Standard and Power Factor

The adapter complied with IEC 61000-3-2 class D harmonic standard while input power over than 75W. The P.F. shall >0.95 @ 100Vac input and >0.9 @ 240Vac input.

3-0. Output Requirements

3-1. Output Voltage and Current

| Output Voltage (Vdc) | Current Min.(A) | Current Max.(A) |
|----------------------|-----------------|-----------------|
| +12V | 0 | 10.83 |

3-2. Load Regulation

| Voltage (Vdc) | Tolerance (%) |
|---------------|---------------|
| +12V | +5/, -5 |

3-3. Dynamic Load Regulation

±5% excursion for 50% - 100% or 100% - 50% load change of DC output at any frequency up to 1KHz(duty 50%).

3-4. Ripple & Noise

The power supply shall not exceed the following limits on the indicated voltage for 60Hz or 50Hz ripple, Switching frequency ripple and noise and dynamic load variations measured with a 20MHz bandwidth

| Output | Ripple/Noise |
|--------|-----------------------------------|
| +12V | 1.5% max. of rated output voltage |

Input condition : for rated voltage , Output condition : for max load

Ripple / Noise: 60Hz ripple + switching ripple and noise

Ripple & Noise are measured at the end of output cable which are added a 0.1uF ceramic capacitor and a 47uF electrolytic capacitor

3-5. Over Voltage Protection

150% Max. of rated voltage.

The output voltage shall be shutdown and latch-off when OVP occurred.

3-6. Over Current Protection

110%-150% of rated output current.

The adapter can withstand continuous short at DC output and no damage.

It will enter into normal condition if the fault condition is removed.

3-7. Stability

2% Max. at constant load with constant input (after 30 minutes of operation).

3-8. Temperature Rise

Less than 45°C on top/bottom case at normal AC input & 80% load of DC output at environment temperature 25°C.

3-9. Drop-out (Power Line Disturbance)

Output voltage shall remain within the specified regulation range, through the absence of a line input during 1/2 cycle, at full load and normal AC line input

3-10. Voltage Isolation

The DC ground will be isolated from the AC neutral and AC line.

4-0. Reliability

4-1. MTBF (MIL-HDBK-217F)

The power supply shall be designed and produced to have a mean time between failure (MTBF) of 100,000 hours at 25 degrees C.

5-0. Environment

5-1 Temperature

a. Operating : 0°C to 40 °C

b. Storage : -20 to 85 °C

5-2 Humidity

a. Operating : 10 to 90 %

b. Storage: 5 to 90 %

5-3 Altitude

From sea level to 5,000 Meter (operation) and 5,000 Meter (non operation)

6-0. Safety

6-1. Hi-Pot Test

L、N--> FG: 1800Vac, 10mA, 2S

P --> S: 3000Vac, 10mA, 2S

6-2. Insulation Test

500Vdc, 3Sec. between primary and secondary circuit

IR should $\geq 50 M\Omega$.

6-3. Leakage Current

$\leq 750\mu A$ at 264Vac/60 Hz

6-4. Safety

UL/CUL, TUV, CB, CCC, CE, FCC, BSMI, RCM, PSE, CU, ARGENTINA, UKCA

6-5. EMS

| Items | Specification | Reference |
|-------|--|---------------|
| ESD | Contact: $\pm 4KV$ | IEC 61000-4-2 |
| | Air: $\pm 8KV$ | |
| RS | Frequency: 80~1000MHz Field Strength: 3V/M , 80% AM(1KHz) | IEC 61000-4-3 |
| EFT | 1.0 KV on input AC power ports. | IEC 61000-4-4 |
| SURGE | Line to Line: $\pm 1KV$ (peak) | IEC 61000-4-5 |
| | Line to F.G : $\pm 2KV$ (peak) | |

6-6. EMI

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|----------------------------|
| Comply with Standards |
| CISPR 32, EN 55032 Class B |
| FCC PART 15 Class B |

7-0. Mechanical Characteristics

7-1. Physical Size : 179mm (L) * 65 mm (W) * 40 mm (H)

7-2. Enclosure material : 94V-0 minimum

7-3. Output Cable (Reference) : UL1866 #14

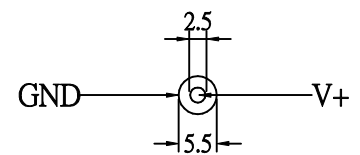
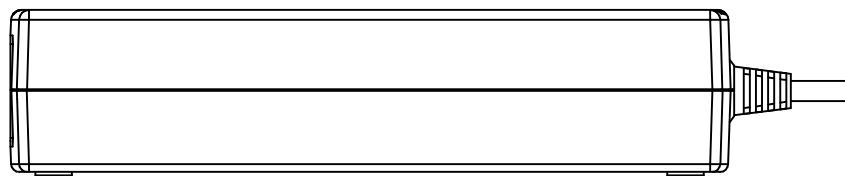
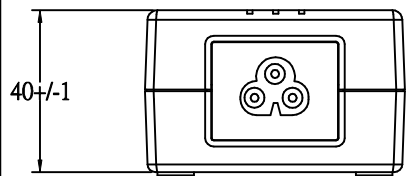
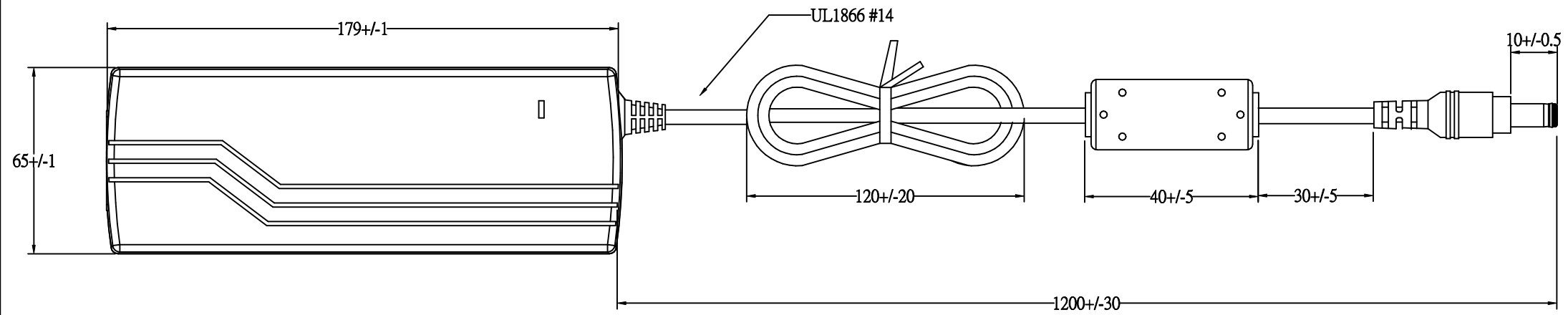
7-4. Vibration Test

The vibration frequencies are set at 20Hz, with total amplitude of 1.5mm
Along the 3 directions namely X-Y-Z. The each direction should be vibrated
for 60 minutes, after testing no abnormal electrical or mechanical should occur.

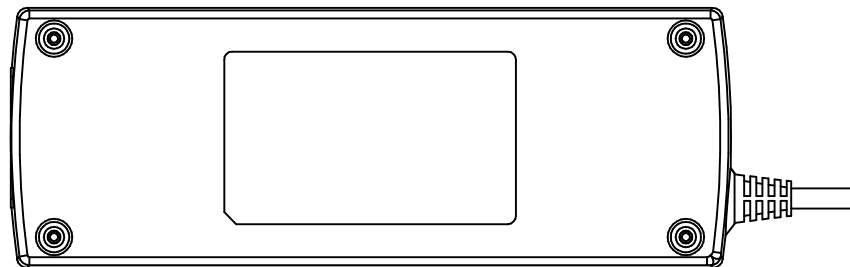
7-5. Drop Test (Referencing to CSA C22.2 No.950/UL1950/UL1310/EN62368)

Products shall be dropped from a height of 1000 mm onto a horizontal surface
consists of hardwood at 13mm thick , mounted on two layers of plywood each
19mm to 20mm thick , all supported on a concrete or equivalent non-resilient
floor. Upon conclusion of test , the equipment cannot into hazardous moving
parts and hazardous voltage circuits need be operational , and need meet Hi-Pot
specification requirement .

7-6. Net Weight (Reference) : 705+/-10g



Maximum Amperage: 10A



| EDAC POWER ELEC. | | | | APPROVED |
|------------------|----------------|-------|------------|-------------------|
| MODEL | EA11703A(TD01) | UNIT | mm | DESIGNED |
| color | BLACK | SCALE | | CHECK |
| cus. | | DATE | 2021-03-09 | DRAWING L.J.YU |

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71.5

EDAC EDACPOWER ELEC.

AC ADAPTER 电源适配器 電源供應器

MODEL 型号 型號: EA11703A-1200

AC INPUT 输入 輸入: 100-240V~, 2.5A, 50-60Hz

DC OUTPUT 输出 輸出: 12.0V \equiv 10.83A 130.0W



CAUTION 注意 注意

FOR INDOOR USE ONLY 室内产品使用 室內產品使用

I.T.E. USE ONLY

DATE CODE:

出厂日期
出廠日期

| | | | | | | | | | |
|----|----|----|---|---|---|---|---|---|---|
| 21 | 22 | 23 | | | 1 | 2 | 3 | 4 | 5 |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |



I.T.E. POWER SUPPLY

41TJ
E209833



SGS-210006-EA

制造商: 翌胜电子股份有限公司



1312811700021 C1 C3

MADE IN CHINA 中国制造 中國製造



RoHS

42

EDAC P/N.: 312811700021

Background: Black color

Character: Silver color

Unit: mm