

**SPECIFICATION FOR APPROVAL**

CUSTOMER: \_\_\_\_\_

CUSTOMER P.N.: \_\_\_\_\_

MODEL NO. : \_\_\_\_\_ JAMS-P-TA700IC52V0-150R4 \_\_\_\_\_

MODEL OF CERTIFICATE: \_\_\_\_\_

PRODUCT NO.: \_\_\_\_\_

SAMPLE DATE: \_\_\_\_\_ 2012-05-21 \_\_\_\_\_

CUSTOMER AUTHORIZED SIGNATURE		

Please return to us one copy of "SPECIFICATION FOR APPROVAL" with you approved signature.

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## 1. Scope

The document detail the electrical, mechanical and environmental specifications of a LED driver. There are four channel outputs for this driver and can provide 150W max. continuous output power , the LED driver shall meet the RoHS requirement.

Description:

- LED driver (With AL Case)                       LED driver (With Plastic Case)  
 Open Frame     Others

## 2. Input Characteristics

### 2.1. Input Voltage & Frequency

The range of input voltage is from 90Vac to 305Vac single phase.

Items	Minimum	Nominal	Maximum
Input Voltage	90Vac	100Vac-277Vac	305Vac
Input Frequency	47Hz	60Hz/50Hz	63Hz

### 2.2. Input AC Current

2.5Amax. @ 100-277Vac input & full load

### 2.3. Inrush Current (cold start)

60Amax. @ 277Vac input

### 2.4. Power Factor

Typical value is 0.99@ 110Vac input& full load

Typical value is 0.95@ 220Vac input& full load

### 2.5. Efficiency

Typical value is 88% (85%Min) @ 110Vac input& full load

Typical value is 90.7% (88%Min) @ 220Vac input& full load

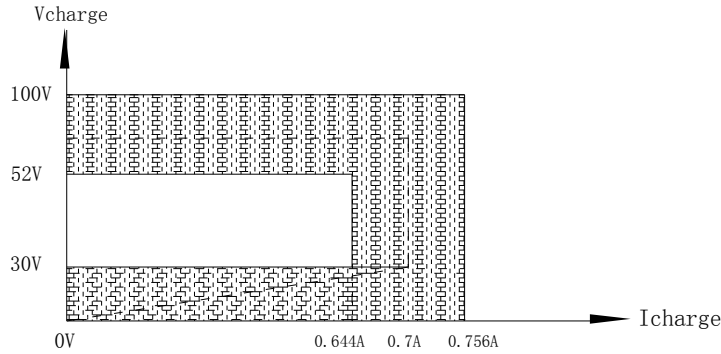
## 3. Output Characteristics

### 3.1. Dimming Control Part Characteristics(no loading)

Rated Input	Input Current	Voltage Range	Remark
Vdim & GND	0-1mA	1~10Vdc, low (0V) high (<12V)	Red"+ " Black" -"

### 3.2. Main Output Characteristics(CV mode )

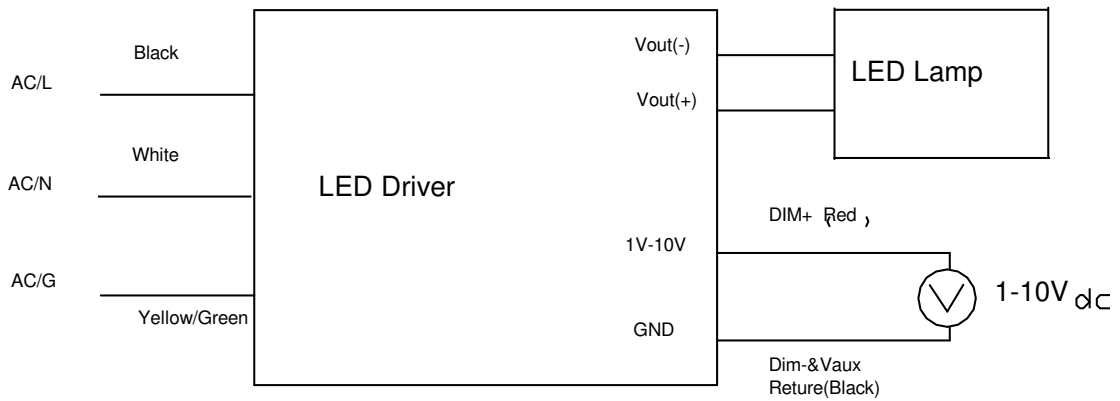
Rated Output	No Load	Output Range	Remark
+52V	0.0A	52-100V	White"+ " Black" -"
+52V	0.0A	52-100V	Blue"+ " Yellow" -"
+52V	0.0A	52-100V	White"+ " Black" -"
+52V	0.0A	52-100V	Blue"+ " Yellow" -"



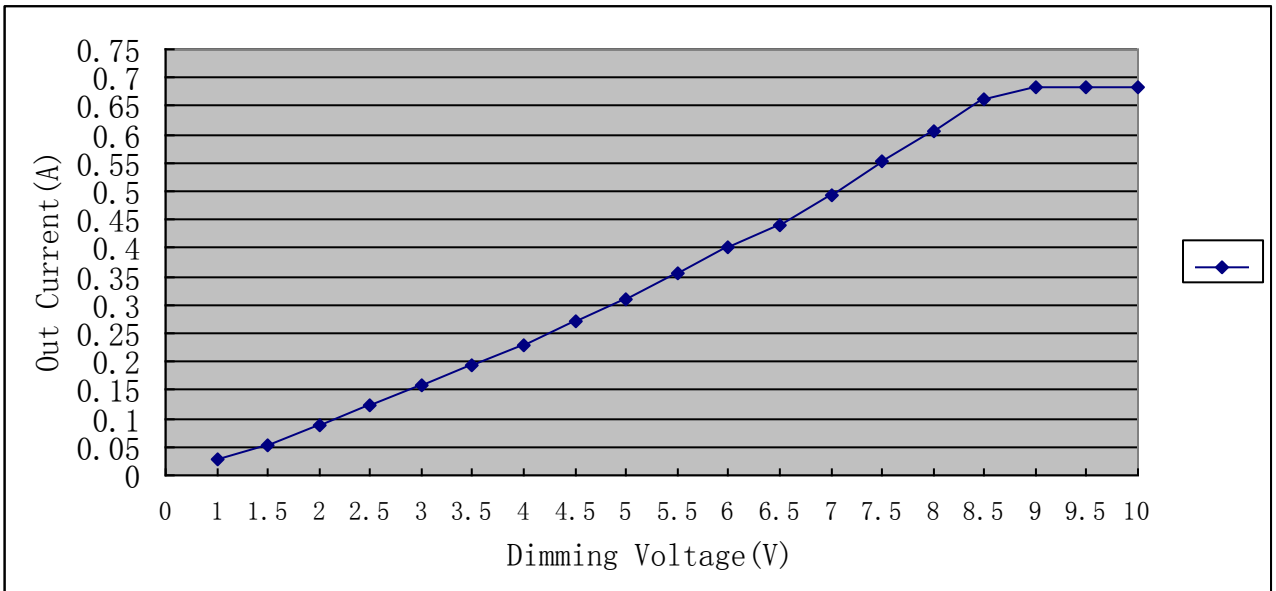
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Constant Current Output Characteristics	Minimum	Typical	Maximum
Output Current Range	0.644A	0.7A	0.756A
Output Voltage Range	30V	/	52V

### 3.3. Output Analog Dimming Curve



调光电压 (V)	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10
输出电流 (A)	0.028	0.052	0.089	0.124	0.157	0.193	0.229	0.271	0.311	0.354	0.4	0.441	0.492	0.553	0.605	0.662	0.683	0.683	0.683



### 3.4. Turn - on Delay Time

2S max. @ 100Vac input & full load

3S max. @ 220Vac input & full load

### 3.5. Hold-up Time

6mS min. @ full load &115Vac/60Hz input turn off at worst case

10mS min. @ full load &230Vac/50Hz input turn off at worst case

### 3.6. Rise Time

50mS max. @ rated load

### 3.7. Fall Time

50mS max. @ full load

### 3.8. Output voltage Overshoot / Undershoot

10%max.When the power on or off(Led in series for loading)

### 3.9. Output Load Transient Response

output voltage within 52V ~ 100V for load step from 20% to 80%, R/S: 1A/uS,

frequency: 100Hz

### 3.10. Power Dissipation

No load power dissipation  $\leq 3W$ .

## 4. Protection Requirements

### 4.1. Short Circuit Protection

The input power shall decrease when the output rail short, the power supply shall no damage, and shall be self-recovery when the fault condition is removed

### 4.2. Output Over Voltage Protection

When the output voltage is over 1.35 times  $V_{out}$ , the product is protected such as hiccup or when it is at the highest point of output voltage the product would not be hurted when the fault was eliminated or is start working again the power supply is working normally.

### 4.3. Over Temperature Protection

110°C Maximum temperature of components inside the case.

## 5. Environment Requirements

### 5.1. Operating Temperature and Relative Humidity

-20°C to +70°C

10%RH to 100%RH

### 5.2. Storage Temperature and Relative Humidity

-25°C to +85°C

5%RH to 100%RH non-condensing@sea level shall be low 10,000 feet

### 5.3. Vibration

10 to 300Hz sweep at a constant acceleration of 1.0G(Breadth: 3.5mm) for 1Hour for each of the perpendicular axes X, Y, Z

### 5.4. Waterproof grade

IP67

## 6. Reliability Requirements

### 6.1. Burn-in

The power supply shall under go a minimum of 4 Hours burn-in test at  $40^{\circ}\text{C} \pm 5^{\circ}\text{C}$  under full load condition

### 6.2. Life Time Qualification

The Life time shall be at least 50,000hours under Tcase is  $45^{\circ}\text{C}$ , Full load and nominal input condition.

### 6.3. MTBF Qualification

The MTBF shall be at least 250.000 hours at 110Vac, 80% load and  $25^{\circ}\text{C}$  ambient temperature(MIL-HDBK-217F).

## 7. Safety & EMC Standards

### 7.1. Safety category

Safety Category	Country	Standard
CUL	USA & Canada	UL8750,UL935,UL1012,UL1310 Class 2,CSA-C22.2 No.107.1,CSA C22.2 No.223-M91 Class 2
CE	Europe	EN 61347-1,EN 61347-2-13

### 7.2. EMI Standards

EMI Standards	Country	Notes
EN 55015	Europe	Conducted emission Test & Radiated emission Test with 6 dB margin
FCC	USA	FCC Part 15 class B,ANSI C63.4:2009

### 7.3. EMS Standards

EN 61000-3-2	Harmonic current emissions
EN 61000-3-3	Voltage fluctuations & flicker
EN 61000-4-2	Electrostatic Discharge(ESD): 8kV air discharge, 4kV contact discharge
EN 61000-4-3	Radio-Frequency Electromagnetic Field Susceptibility Test-RS
EN 61000-4-4	Electrical Fast Transient / Burst-EFT
EN 61000-4-5	Surge Immunity Test: AC Power Line: line to line 2 kV, line to earth 4 kV
EN 61000-4-6	Conducted Radio Frequency Disturbances Test-CS
EN 61000-4-8	Power Frequency Magnetic Field Test
EN 61000-4-11	Voltage Dips
EN 61547	Electromagnetic Immunity Requirements Applies To Lighting Equipment

## 8. Main Safety Test items

### 8.1. Dielectric Strength(Hi-pot)

Primary to Secondary: 3750Vac 10mA<sub>Max</sub> / 60second(3second for production)

(Intermediary goods)

Primary to Secondary: 1875Vac 10mA<sub>Max</sub> / 60second(3second for production)

(Finished goods)

Primary to Earth: 1875Vac 10mA<sub>Max</sub> /60second(3second for production)

Secondary to Earth: 1875Vac 10mA<sub>Max</sub> / 60second(3second for production)

**8.2. Grounded Resistance**

< 0.1Ω,25A,1Minute

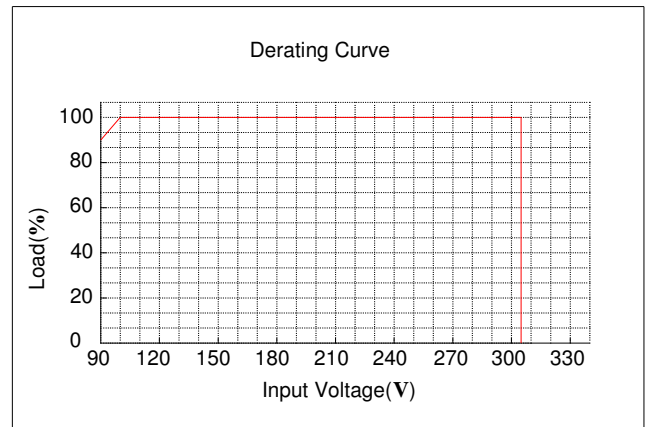
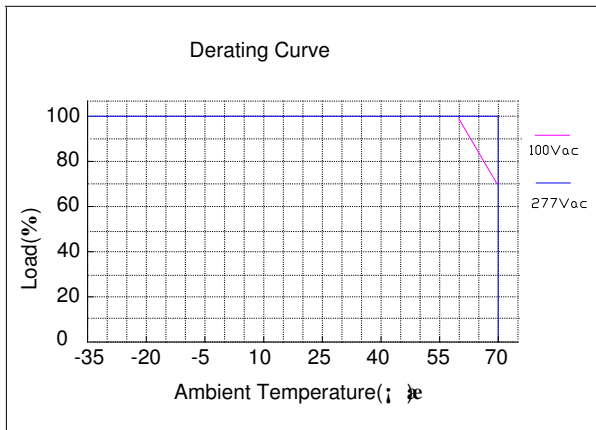
**8.3. Leakage Current**

0.75mA max. at input 277Vac/50Hz.

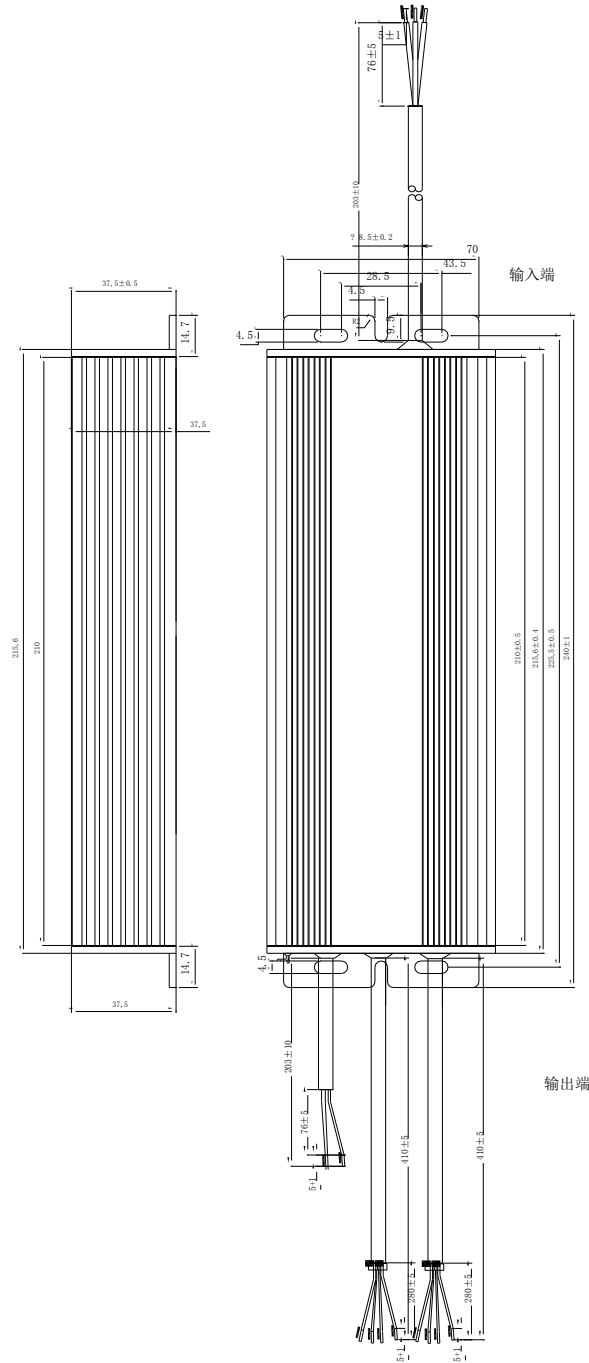
**8.4. Insulation Resistance**

The IR shall be at least 50MΩ when apply 500Vdc between primary and secondary.

**9. Derating Curve**



## 10. Mach. Outline Drawing



Dimensions	Millimeters(Inches)
Length	210(8.26)
Width	82(3.23)
Height	37.5 (1.47)

Wire	Specification
AC Input	UL 3*18AWG
DC Output	UL2464 4*22AWG
Dimming	UL2464 2*22AWG

11. I/O Marking Drawing

36.00 mm

210.00 mm

**JARO** LED DRIVER  
 Model: JAMS-P-TA7001C52V0-150R4 Po: 150W c-RAI<sup>®</sup> US E332689  
 PF > 0.95 EFFICIENCY > 88%

Input Voltage	100-277V ~ 50/60Hz	Output Voltage	30-52V ---
Input Current	2.5 A	Output Current	0.7AX4

MADE IN CHINA 1201068507A0001

Patented Product  
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CAUTION  
 1. Do not put the product directly in heat source or flammable materials.  
 2. Right installation for easy heat conduction.

OUTPUT

- 1. White<sup>+</sup> -
- 2. Blue<sup>+</sup> -
- 3. Yellow<sup>+</sup> -
- 4. Black<sup>+</sup> -
- 5. Blue<sup>+</sup> -
- 6. Yellow<sup>+</sup> -

INPUT

- L Black
- G Y/G
- N White

IP67  
 RoHS

Year Month Day Product Line No. Serial No  
 12 01 06 8507 A 0001

Remark: Above lable is laser engraved