# SPECIFICATION FOR APPROVAL

CUSTOMER：_____

CUSTOMER P.N.：_____

MODEL NO. ： JAMS-P-TA350IC50V0-150S8

MODEL OF CERTIFICATE： JAMS-P-TA350IC50V0-150S8

PRODUCT NO.：_____

SAMPLE DATE： 2012-03-17

| CUSTOMER AUTHORIZED SIGNATURE | | |
|---|---|---|
| | | |

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

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|---|---|---|
| | | |

**Revision History**

| Rev. | Description of Change | | Changed Date | Notes |
|---|---|---|---|---|
| | Before | After | | |
| A | Original Release | --- | 2012.03.17 | |
| B | Cable changed | | 2012.04.12 | |
| B | Outline Drawing changed | | 2012.04.25 | |
| C | Change the length of wire | No：AC:322080287<br>DC:322230337/322230308 | 2012.06.11 | |
| D | No UL mark label | UL label | 2012.9.24 | |
| E | Operating Temperature :<br>-40℃ to +60℃<br>Storage Temperature :<br>-40℃ to +85℃ | Operating Temperature:<br>-20℃ to +60℃<br>Storage Temperature :<br>-25℃ to +85℃ | 2012.12.13 | |
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# Table Of Content

# 1. Scope

The document detail the electrical, mechanical and environmental specifications of a LED driver. There are eight channes output 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

2.0Amax. @ 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 87.9%@ 110Vac input& full load

Typical value is 90.03%@ 220Vac input& full load

# 3. Output Characteristics

## 3.1. Dimming Control Characteristics

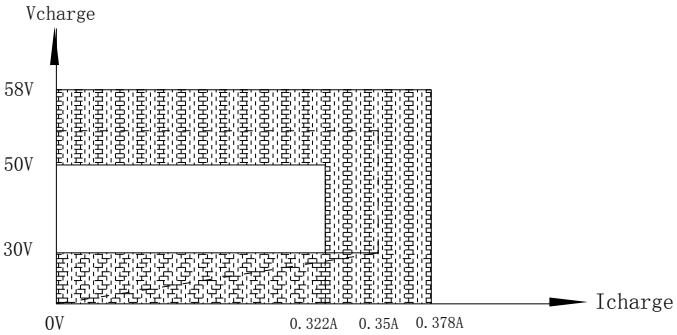
| Parameter | MIN. | Typ. | Max. | Notes |
|---|---|---|---|---|
| 15V output | 13.5V | 15V | 16.5V | / |
| 15V output source current | 0mA | / | 10mA | / |
| Absolute maximum voltage for the 1-10V input pin | 1V | / | 12V | / |
| Sink current on 1-10V input pin | 0mA | / | 1mA | / |

## 3.2. Main Output Characteristics(CV mode )

| Rated Output | No Load | Output Range | Remark |
|---|---|---|---|
| +50V | 0.0A | 50-58V | White"+" Black" |
| +50V | 0.0A | 50-58V | Red"+" Transparency" |

| | | | |
|---|---|---|---|
| +50V | 0.0A | 50-58V | Blue"+" Yellow" |
| +50V | 0.0A | 50-58V | Green"+" Black/White" |
| +50V | 0.0A | 50-58V | White"+" Black" |
| +50V | 0.0A | 50-58V | Red"+" Transparency" |
| +50V | 0.0A | 50-58V | Blue"+" Yellow" |
| +50V | 0.0A | 50-58V | Green"+" Black/White" |

### 3.3. Voltage/Current Curve Fixed

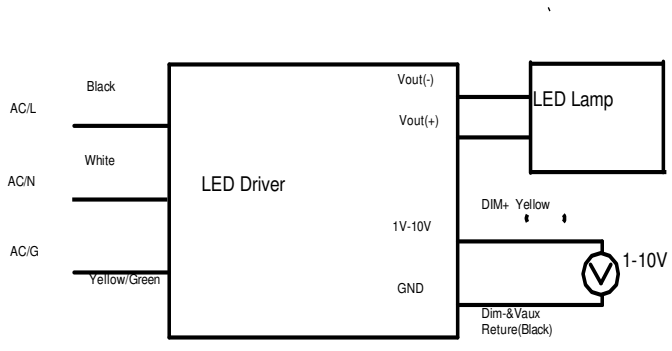


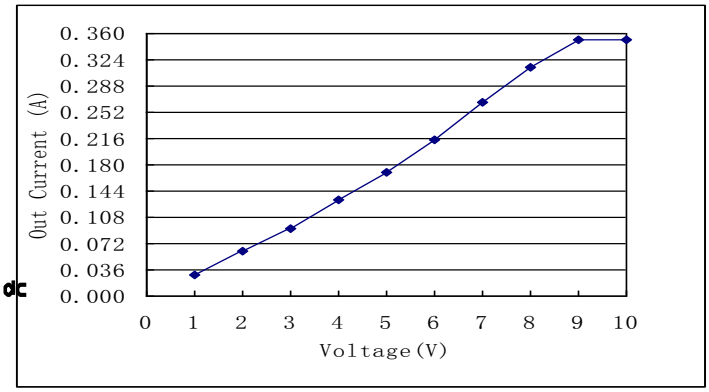

Remark:

| **Constant Current** Output Characteristics | Minimum | Typical | Maximum |
|---|---|---|---|
| **Output Current Range** | 0.322A | 0.35A | 0.378A |
| **Output Voltage Range** | 30V | / | 50V |

### 3.4. Output Analog Dimming Curve

| VOLTAGE (V) | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|---|
| CURRENT (A) | 0.029 | 0.062 | 0.092 | 0.132 | 0.17 | 0.215 | 0.265 | 0.313 | 0.352 | 0.352 |



### 3.5. Turn - on Delay Time

2S max. @ 100Vac input & full load

3S max. @ 220Vac input & full load

### 3.6. 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

### 3.7. Rise Time

50mS max. @ rated load

### 3.8. Fall Time

50mS max. @ full load

### 3.9. Output voltage Overshoot / Undershoot

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

### 3.10. Output Load Transient Response

output voltage within 50V ~ 58V for load step from 20% to 80%, R/S: 1A/uS,

frequency: 100Hz

### 3.11. Power Dissipation

No load power dissipation ≤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℃Maximum temperature of components inside the case.

## 5. Environment Requirements

### 5.1. Operating Temperature and Relative Humidity

-20℃ to +60℃

10%RH to 100%RH

### 5.2. Storage Temperature and Relative Humidity

-25℃ to +85℃

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℃±5℃ under full load condition

### 6.2. Life Time Qualification

The Life time shall be at least 50,000hours under Tcase is 45℃, 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℃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 10mAMax / 60second(3second for production)

(Intermediary goods)

Primary to Secondary: 1875Vac 10mAMax / 60second(3second for production)

(Finished goods)

Primary to Earth: 1875Vac 10mAMax /60second(3second for production)

Secondary to Earth: 1875Vac 10mAMax / 60second(3second for production)

### 8.2. Grounded Resistance

< 0.1Ω,25A,1Minute

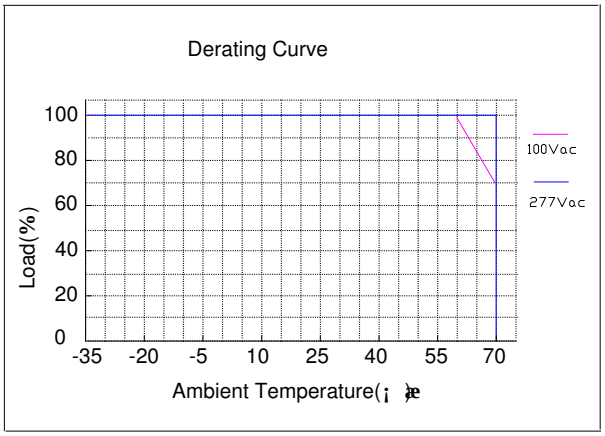
### 8.3. Leakage Current

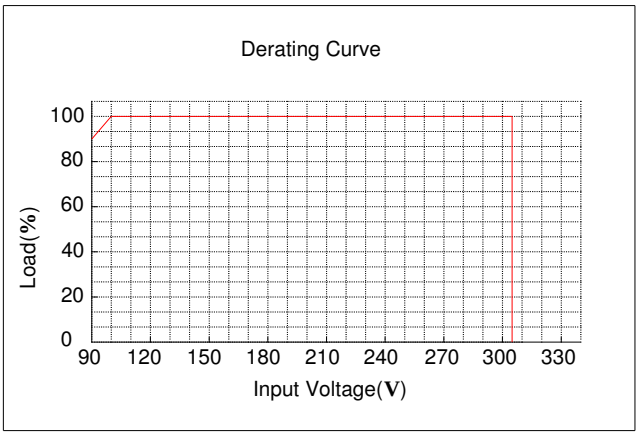
0.75mA max. at input 277Vac/50Hz.

### 8.4. Insulation Resistance

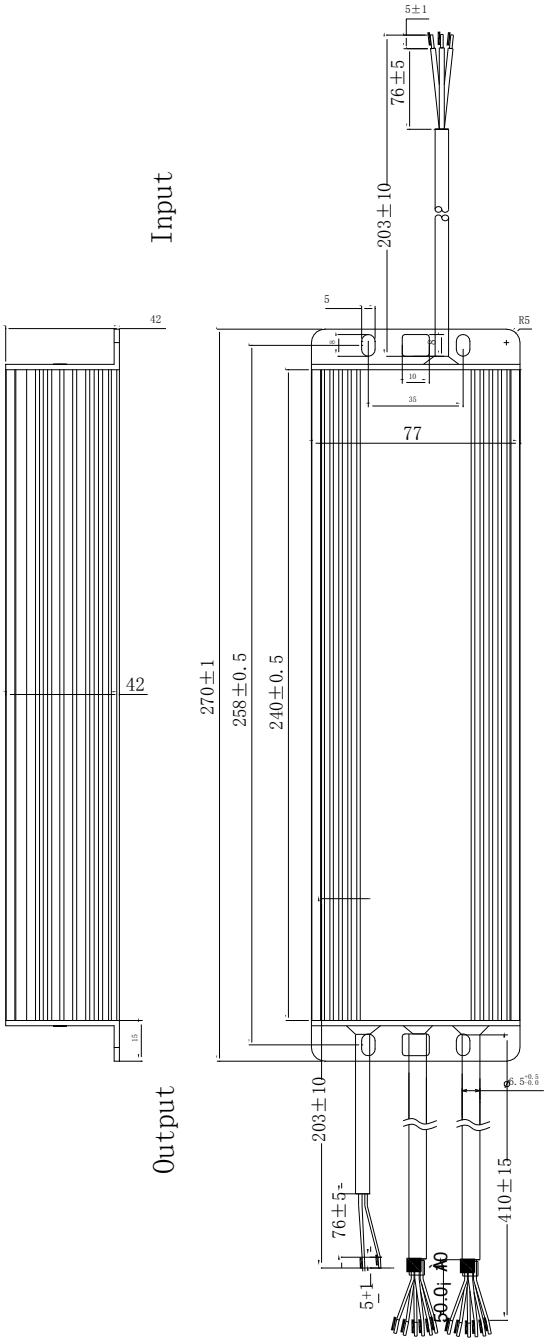
The IR shall be at least 50MΩ when apply 500Vdc between primary and secondary.

## 9. Derating Curve



## 10. Mach. Outline Drawing L0166-N0




| Dimensions | Millimeters(Inches) |
|---|---|
| Length | 270(10.63) |
| Width | 77(3.03) |
| Height | 42 (1.65) |

| Wire | Specification |
|---|---|
| AC Input | UL 3c*18AWG |
| DC Output | UL2464 8*22AWG |
| Dimming | UL2464 2*22AWG |

**11. I/O Marking Drawing**