

## SPECIFICATION FOR APPROVAL

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

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

PRODUCT MODEL: \_\_\_\_\_ EUC-200S350ST-0302 \_\_\_\_\_

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

SAMPLE DATE: \_\_\_\_\_

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/0	Original Release	---	2013.01.14	---

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1. Scope

The document detail the electrical, mechanical and environmental specifications of a 200W constant current LED driver. 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 90 to 305Vac single phase.

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

2.2. Input AC Current

2.4Amax. @ input 100-277Vac & Full load.

2.3. Inrush Current (cold start)

75Amax. @ 230Vac input, 25°C.

2.4. Power Factor

Typical value is 0.98@110Vac input & full load

Typical value is 0.95@220Vac input & full load

2.5. Efficiency

Typical value is 85% @110Vac input & full load

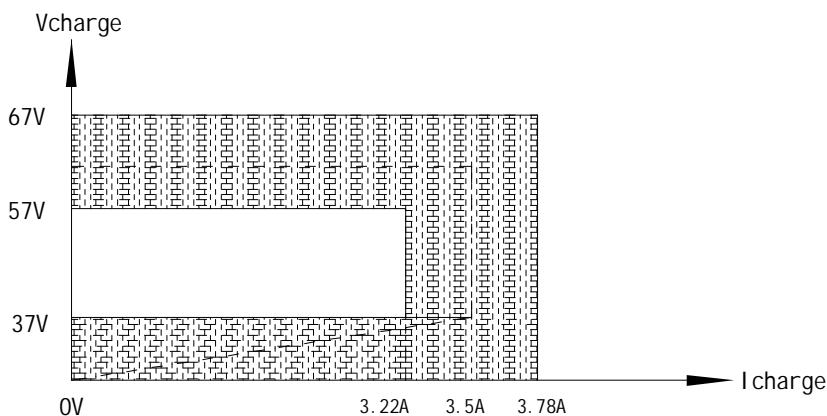
Typical value is 88% @220Vac input & full load

3. Output Characteristics

3.1. Static Output Characteristics <Vo & R&N> <3000mVp-p

Ripple & Noise: Measurement is done by 20MHz bandwidth oscilloscope and the output paralleled a 0.1uF ceramic capacitor and a 10uF electrolysis capacitor. (test under the condition of rated input and rated output)

3.2. Voltage/Current Curve



Remark:

Constant Current Output Characteristics	Minimum	Typical	Maximum
Output Current Range	3.22A	3.5A	3.78A
Output Voltage Range	37V	/	57V

3.3. Turn - on Delay Time

3.0S max. @ input 100-277Vac & Full load

3.4. Hold-up Time

8.5mS min. @ full load & 115Vac/60Hz input turn off at worst case

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

3.5. Output voltage Overshoot

10% max. When the power on

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. Over Voltage Protection

When the output voltage is over (1.2-1.4)  $V_{out}$ , the product will shutdown and enter protection status, the driver will re-start and work normally if the fault condition was eliminated.

5. Environment Requirements

5.1. Operating Temperature and Relative Humidity

-35°C to +60°C

10%RH to 100%RH

5.2. Storage Temperature and Relative Humidity

-40°C to +85°C

5% 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  $T_{case}$  is  $45^{\circ}\text{C}$ , Full load and nominal input condition.

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. 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

7.3. 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

8. Main Safety Test items

8.1. Dielectric Strength(Hi-pot)

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

<Finished goods>

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

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

8.2. Grounded Resistance

< 0.1  $\Omega$  , 25A, 1Minute

8.3. Leakage Current

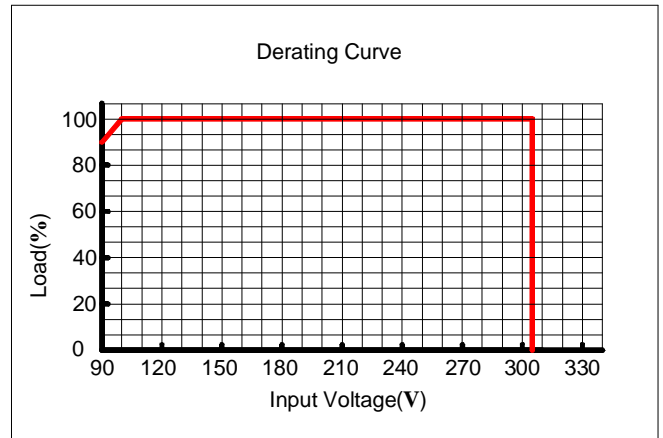
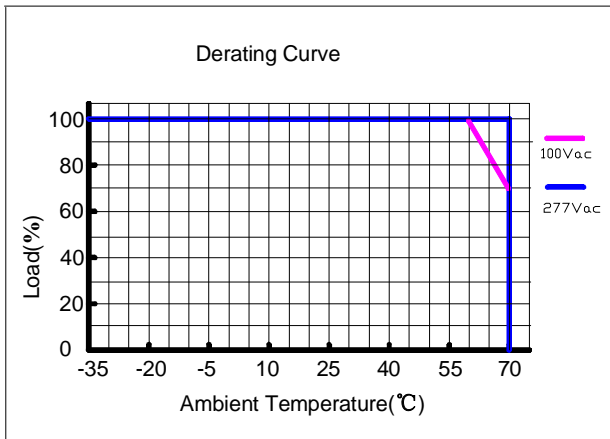
0.75mA max. at input 230Vac/50Hz.

8.4. Insulation Resistance

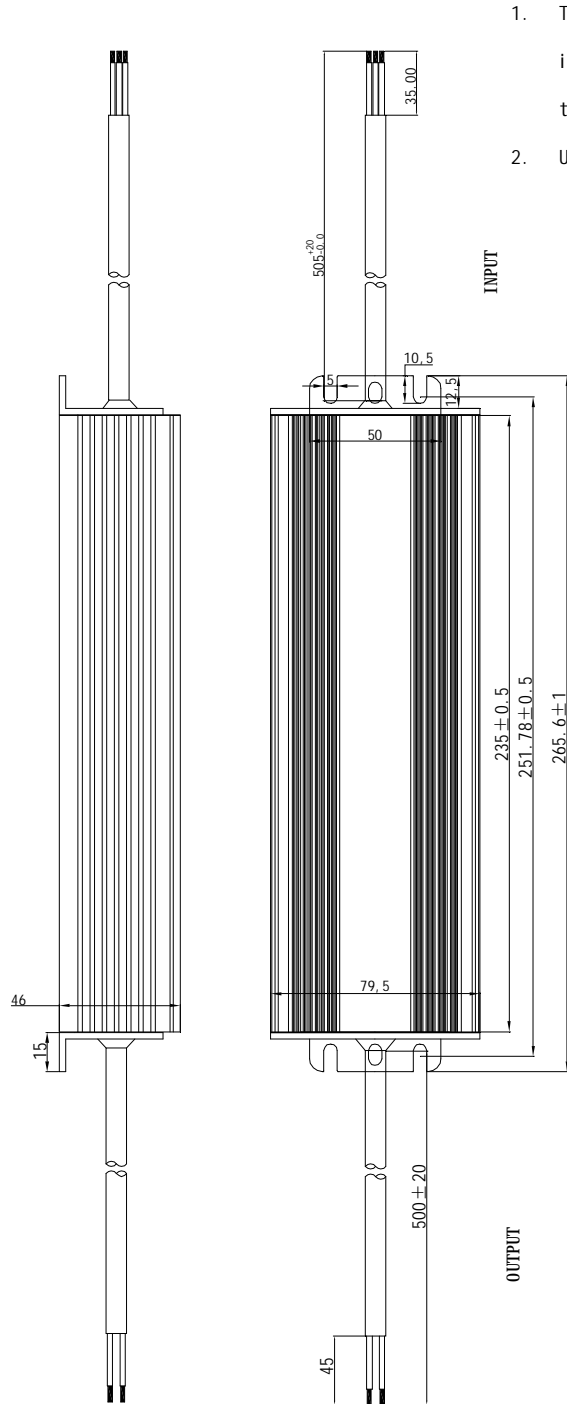
The IR shall be at least 50M $\Omega$  when apply 500Vdc between primary and secondary.

The IR shall be at least 50M $\Omega$  when apply 500Vdc between primary and Earth.

## 9. Derating Curve



10. Mach. Outline Drawing



1. Tolerance: unmarked tolerance all is ±0.5, marked according to tolerance of it
2. Unit: mm

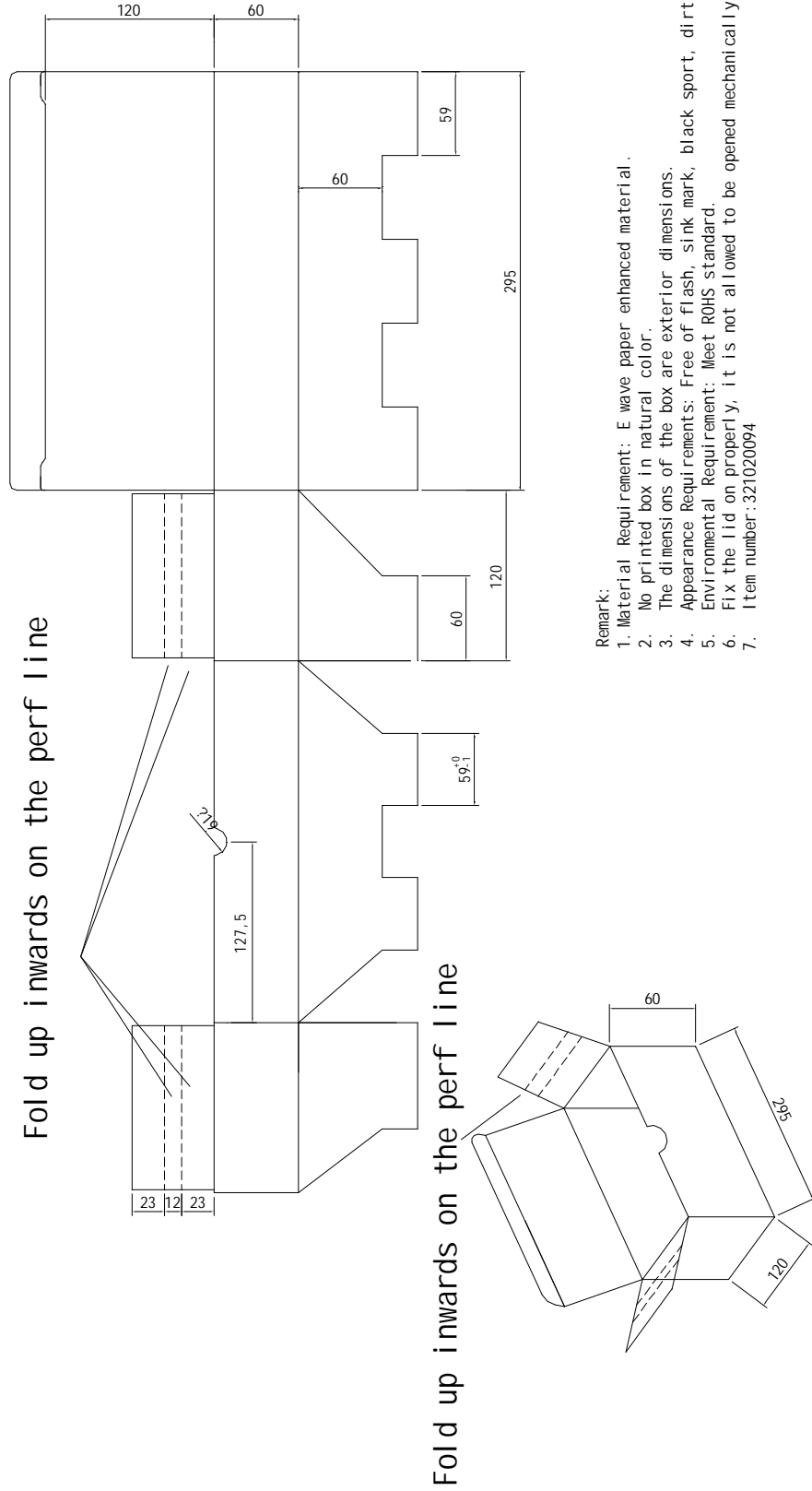
Dimensions	Millimeters(Inches)
Length	265.6(10.46)

Wire	Speci fi cation
AC Input	3*1.0mm <sup>2</sup> VDE+CCC



Width	79.5(3.13)	DC Output	2*1.0mm <sup>2</sup> VDE+CCC
Height	46(1.8)	Dimming	/

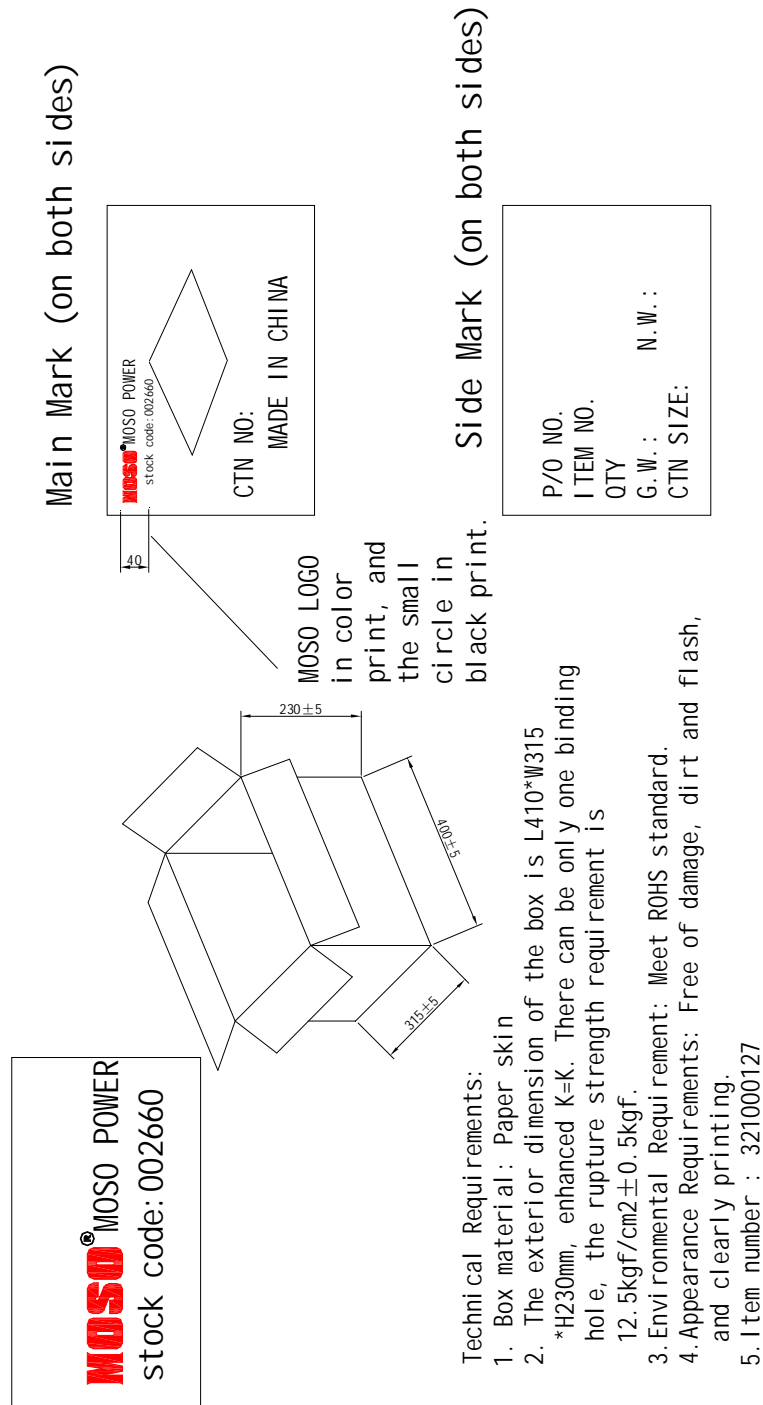
11. White box



Remark:

1. Material Requirement: E wave paper enhanced material .
2. No printed box in natural color.
3. The dimensions of the box are exterior dimensions.
4. Appearance Requirements: Free of flash, sink mark, black sport, dirt and damage.
5. Environmental Requirement: Meet ROHS standard.
6. Fix the lid on properly, it is not allowed to be opened mechanically.
7. Item number: 321020094

12. Package Drawing



13. I/O Marking Drawing

30.00 mm

235.00 mm

**L Brown** INPUT **Brown<sup>+</sup>** OUTPUT  
**G Y/G** **Blue<sup>-</sup>**  
**N Blue**

**MOSO**<sup>®</sup> LED DRIVER (Constant Current Type) 9A-300mA  
**EUC-200S350ST-0302**

Input Voltage	100-377V~	50/60Hz	Output Voltage	3.5-51V <sup>DC</sup>
Input Current	2.4A		Output Current	3.5A

Patented Product  
 Copy right reserved  
 1301140302A0001

CE   **IP67** RoHS

T<sub>a</sub>: 65°C  
 T<sub>c</sub>: 100°C

CAUTION:  
 1. Do not put the product directly to  
 electric shock or fire risk.  
 2. Please consult list item to the safety sheet conduct item.

**Blue<sup>-</sup>**

1301140302A0001  
 Y M B CODE LINE NO.  
 Bar code for 128 format  
 Date of production need to be updated

Remark: Above label is laser engraved