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|               | <b>TITLE:</b><br><br><p style="text-align: center;"><b>PU012A024AP SPECIFICATIONS</b></p> |                 |
|               |   | REVISION: A1    |

Doc No.: MSSD-4197 A1

## LED DRIVER SPECIFICATIONS

Part Description: Input: 90VAC~305VAC, Output: 24V, 50 ~ 500mA.

Customer's Part Number:

MOONS' Part Number: **PU012A024AP**

**Customer:**

|  |
|--|
| <p><b>Company:</b></p><br><p><b>Department:</b></p><br><p><b>Approved by:</b></p><br><p><b>Date:</b></p> |
|--|

**EDITED:**

**DATE:**

**CHECKED:**

**DATE:**

**STANDARD:**

**DATE:**

**APPROVED:**

**DATE:**

**SHANGHAI MOONS' AUTOMATION CONTROL Co., LTD.**



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## 1. ELECTRICAL CHARACTERISTICS

### 1.1 Input Specifications:

#### 1.1.1 Rated Voltage

100VAC ~ 277VAC.

#### 1.1.2 Input Voltage Range

90VAC ~ 305VAC.

#### 1.1.3 Rated Frequency

50Hz/60Hz

#### 1.1.4 Frequency Range

47Hz ~ 63Hz

#### 1.1.5 Efficiency

83% (Typical) , 81% (minimum) , at 220VAC/50 Hz input voltage and maximum load.

83% (Typical) , 81% (minimum) , at 110VAC/60 Hz input voltage and maximum load.

#### 1.1.6 Power Factor

0.97 (Typical) , 0.96 (minimum) , at 110VAC/60 Hz input voltage and maximum load.

0.94 (Typical) , 0.93 (minimum) , at 220VAC/50 Hz input voltage and maximum load.

#### 1.1.7 Inrush Current

Less than 15A at 220VAC/50Hz input voltage and rated load.

#### 1.1.8 Maximum Input Current

Less than 0.18A at 100VAC/60Hz input voltage and rated load.

### 1.2 Output Specifications:

#### 1.2.1 Output Channel

Single output

#### 1.2.2 Output Voltage and Current

Output Voltage: 24Vdc.

Output Current: 50 ~ 500mA.

#### 1.2.3 Total Output Power

12W Max.

#### 1.2.4 Operating Mode

Continuous operating.

#### 1.2.5 Start time

<3s, Measured at 110Vac/60Hz input.

<1.5s, Measured at 220Vac/50Hz input.

### 1.3 Protection:

#### 1.3.1 Short Circuit Protection

The short circuit protection is provided. The characteristic is hiccup mode, automatic recovery. The function operates when the output is shorted. The output will be automatically recovered when the short circuit is released.

#### 1.3.2 Over Voltage Protection

|               |   |                        |
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Latch mode. The power supply shall return to normal operation only after the power is turn-on again.

**1.4 Life Time:**

More than 50,000 hours. (ambient temperature: 50°C)

**1.5 MTBF:**

More than 300,000 hours. (ambient temperature: 25°C)

**2. ENVIRONMENTAL CHARACTERISTICS**

**2.1 Temperature:**

**2.1.1 Operating Temperature**

Ta: -30°C ~ 60°C

Tc: max 90°C

**2.1.2 Storage Temperature**

-40°C ~ 85°C

**2.2 Humidity:**

**2.2.1 Operating Humidity**

5% ~ 100% RH

**2.2.2 Storage Humidity**

5% ~ 100% RH

**2.3 Vibration:**

2G (5~55HZ)

Repeat periods: 30 minutes.

**2.5 Shock:**

20G

**2.6 Degrees OF Protection:**

IP66

**3. SAFETY TESTS**

**3.1 Dielectric Withstand Voltage (HI-POT):**

**Input to Output:** 3.75kVAC, 10mA, 1 minute.

**3.3 Leakage Current:**

**Input to Output:** 277Vac/50HZ, I<sub>leakage</sub> < 0.3mA

**3.2 Insulation Resistance:**

**Input to Output:** 500VDC, 100MΩ, 1 minute.

**4. SAFETY COMPLIANCE**

**The power supply must be compliant with the following safety rules:**

UL 8750, UL1310, EN61347-1, EN61347-2-13

**5. EMC COMPLIANCE**

|  |                                       |                 |
|--|---------------------------------------|-----------------|
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**5.1 Conducted Emission:** FCC PART15 Class B, EN55015 Class B.

**5.2 Radiated Emission:** FCC PART15 Class B, EN55015 Class B.

**5.3 Harmonic Emission:** EN61000-3-2 Class C

**5.4 Surge Immunity:** EN61000-4-5

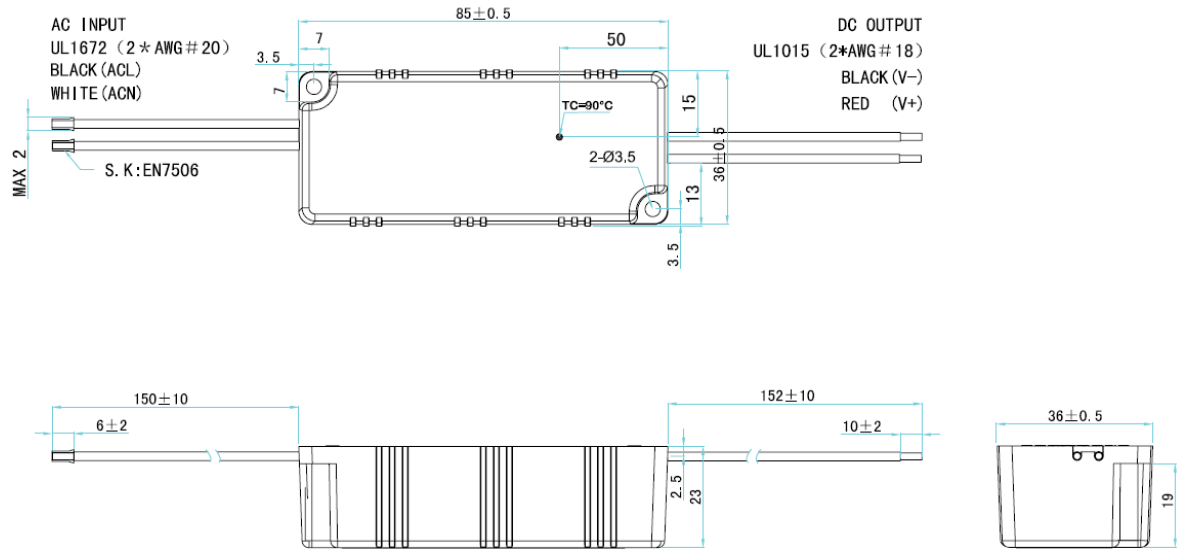
Level 3 (Line to Neutral: ±1kV) .

**5.5 Electrostatic Discharge (ESD):** EN61000-4-2

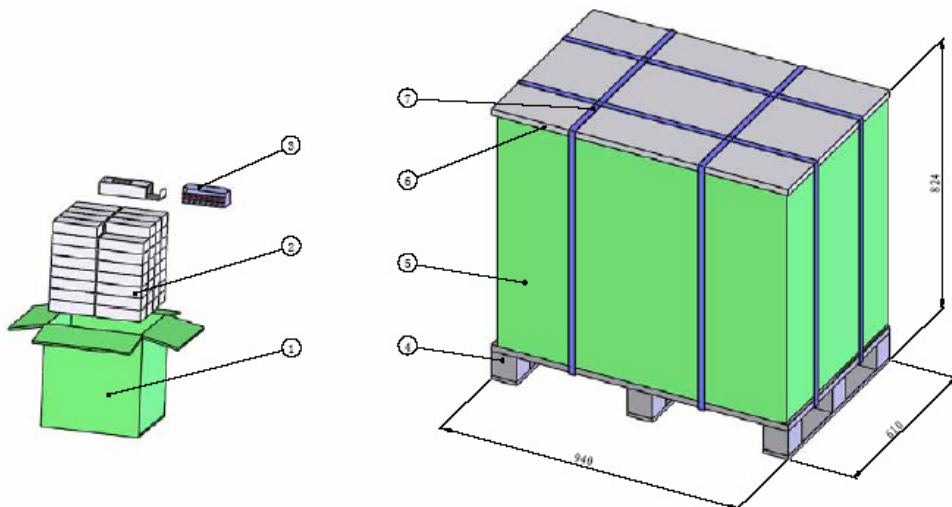
Level 3 (±6kV contact discharge, ±8kV air discharge) .

## 6. MECHANICAL CHARACTERISTICS

### 6.1 Outline:



### 6.2 Packing Specifications:



**Note:**

|               |  |                 |
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| No. | Descriptions          | Quantity |
|-----|-----------------------|----------|
| ①   | Middle carton         | 1        |
| ②   | Inner carton          | 64       |
| ③   | Power supply          | 64       |
| ④   | Wooden pallet 940*610 | 1        |
| ⑤   | Carton                | 1        |
| ⑥   | Cover board 940*610   | 1        |
| ⑦   | Wrapping belt         |          |

- Remark:**
1. Outline of middle carton: 223\*192\*225.
  2. Each middle carton contains 64 pcs of power supply, weighs 9kg.
  3. Each pallet piles up 36 pcs of middle carton. That means 2304 pcs of power supply.
  4. Each pallet of product weighs 350kg. (products net weigh 265kg)

**6.3 Weight:**

115g (Typical) .

**7. NAMEPLATE**

**7.1 Nameplate:**

