



## 1、SCOPE

The document detail the electrical, mechanical and environmental specifications of a Supply POWER, the Quick Charge 3.0 provide 18W max output power.

The power supply shall meet the RoHS requirement.

## 2、Input Characteristics

### 2.1 Input Voltage & Frequency

The range of input voltage is from 100Vac to 240Vac single phase.

|                 | Minimum | Normal        | Maximum |
|-----------------|---------|---------------|---------|
| Input Voltage   | 90Vac   | 100Vac~240Vac | 264Vac  |
| Input Frequency | 47Hz    | 60Hz/50Hz     | 63Hz    |

### 2.2 Input AC Current

0.5Amax. @ 100Vac input voltage and full load.

### 2.3 Inrush Current (Cold Start)

60Amax. @ 230Vac input at

### 2.4 Power Factor

### 2.5 Efficiency (Normal)

78.5% min. @ 115Vac input & out put 5V Full load/115Vac

78.5% min. @ 230Vac input & out put 5V Full load/230Vac

### 2.6 Average Efficiency:

While input 115Vac and 230Vac, the average efficiency is more than 81.84%. The test point is at 25%, 50%, 75% and 100% load after 5 min warm up at max load. must comply with CEC requirements . level VI

### 2.7 No-Load input power dissipation

While input 115Vac 60HZ/230Vac 50Hz and the output is no load, the input power loss must be less than 0.1W

### 3、 Output Characteristics

#### 3.1 Static Output Characteristics <Vo & >

Output Voltage Spec    Output Rating Current

|         |      |
|---------|------|
| 3.6V~6V | 3.0A |
| 6V~9V   | 2.0A |
| 9V~12V  | 1.5A |

#### 3.2 Ripple and Noise:

Under nominal input voltage and nominal load, Parallel with a E-CAP 10uF and C-CAP 0.1uF at the terminal of output rail , measure by Oscilloscope with 20MHz Band width.

|                  |                        |
|------------------|------------------------|
| Voltage          | Ripple and Noise(Max.) |
| <u>3.6-12Vdc</u> | <u>200mV p-p</u>       |

#### 3.3. Voltage/Current Curve

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#### 3.4. Turn - on Delay Time

3.0S max. @ 100Vac input & Full load

#### 3.5. Rise Time

100mS max. @ 100Vac input & Full load

### 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 , the product is protected such as hiccup or when is at the highest point of output voltage the product would not be hurted when the fault is excluded or is start working again the power supply is working normally

#### 4.3 Over Current Protection

The output shall hiccup when the over current applied to the output rail,and shall be self-recovery when the fault condition is removed.

## 5、 Environment Requirements

### 5.1 Operating Temperature and Relative Humidity

-0to +40°C

10%RH to 90%RH

### 5.2 Storage Temperature and Relative Humidity

-25°C to +85°C

100%RH to 100%RH non-condensing @ Sea level shall be low 2000 feet

### 5.3 Vibration

10 to 30Hz sweep at a constant acceleration of 1.0G (Breadth:3.5mm) for 1 Hour for Each of the perpendicular axes X, Y, Z.

### 5.4 Waterproof lever

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## 6、 Reliability Requirements

### 6.1 Burn-in

The power supply shall be burn-in for 4 Hours under normal input and full load at 40°C±5°C.

### 6.2 MTBF Qualification

The MTBF shall be at least 30,000 hours at 25°C, Full load and normal input condition. 平

## 7、 EMI/EMS Standards/EMI/EMS

### 7.1 EMI Standards/EMI 标准

|                  |                |                |
|------------------|----------------|----------------|
| FCC Part 15B(US) | ICES 003(CSA)  |                |
| EN55022          | EN61000-3-2    | EN61000-3-3    |
| BS EN55022       | BS EN61000-3-2 | BS EN61000-3-3 |
| AS/NZS CISPR 22  |                |                |

### 7.2 EMS Standards/EMS 标

| Standard | Test Items |
|----------|------------|
| EN55024  |            |
| EN55024  |            |

## 8 、 Safety Standards

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

Primary to Secondary: 4242DC 5mA Max / 60 seconds(3 seconds for production)  
60second(3second for production) -----

### 8.2. Grounded Resistance

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### 8.3 Leakage Current

0.25 mA max @ 240Vac/50HZ

### 8.4. Insulation Resistance

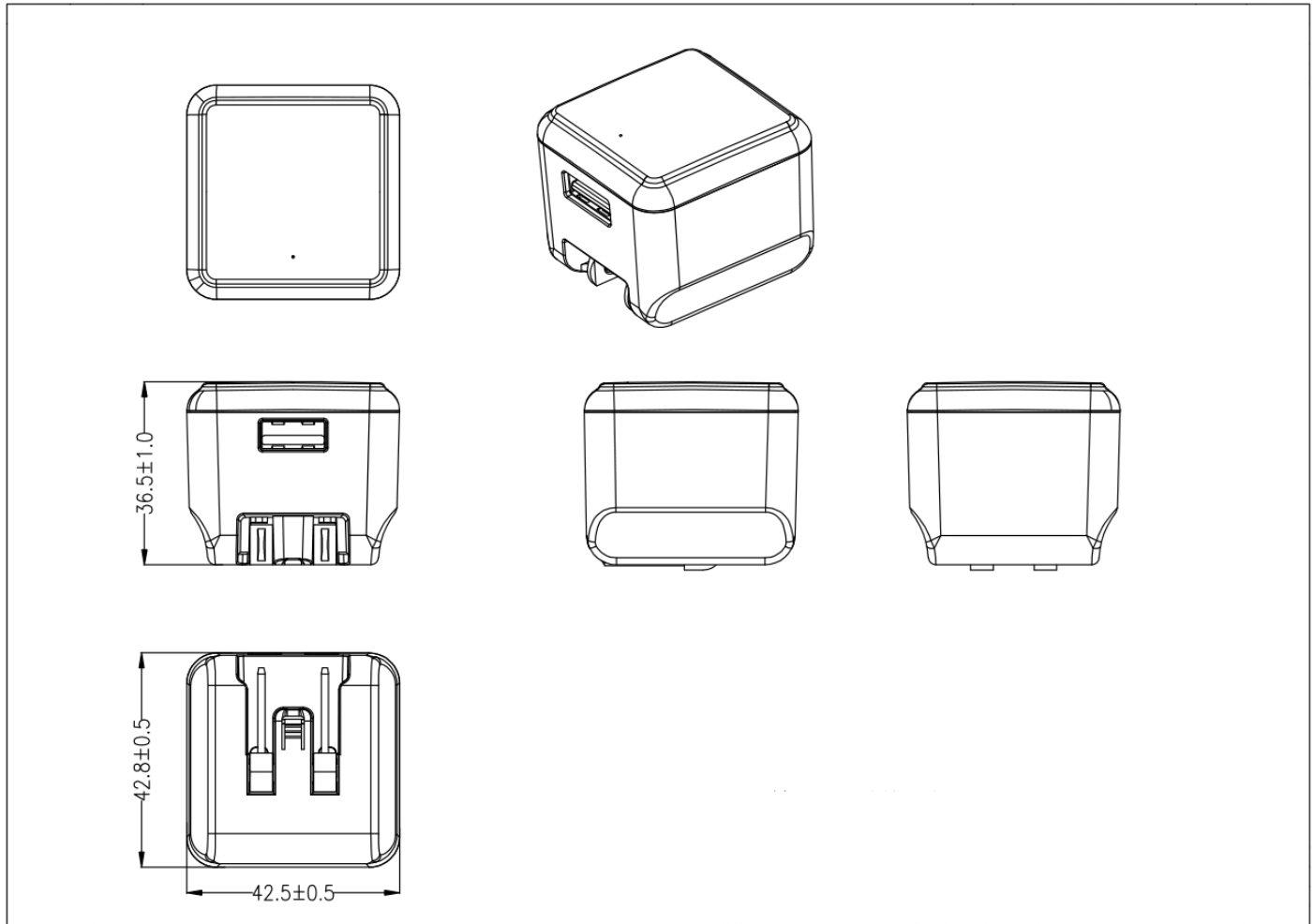
10M $\Omega$  min. at primary to secondary add 500Vdc Test voltage

### 8.5. Regulatory Standards

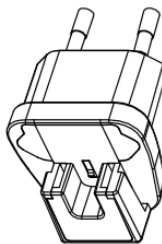
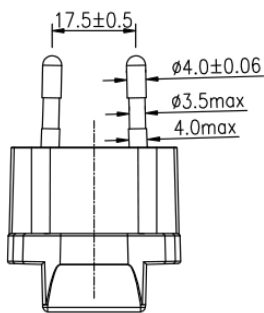
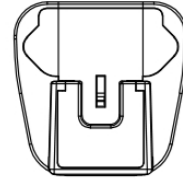
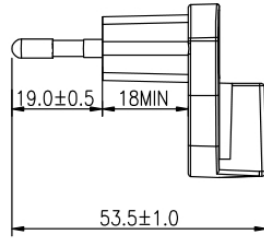
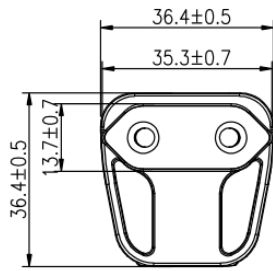
| Type | Country   | Standard       | State      |
|------|-----------|----------------|------------|
| UL   | USA       | UL 60950-1     | Compliance |
| EU   | Europe    | EN 60950-1     | Compliance |
| BS   | Britain   | EN 60950-1     | Compliance |
| AU   | Australia | AS/NZS 60950.1 | Compliance |

# CASE Drawing

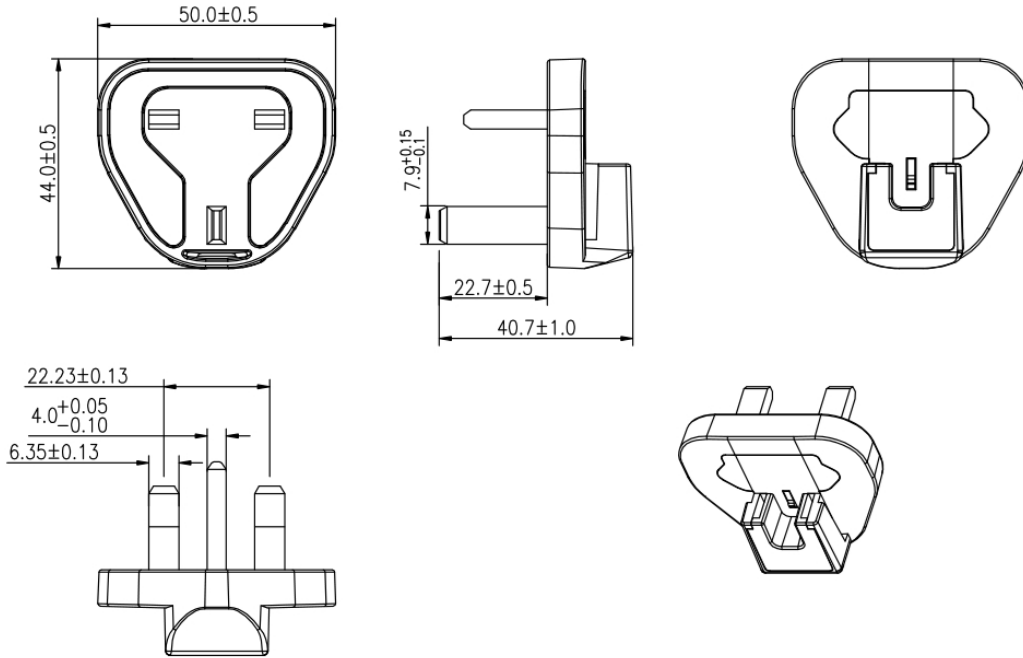
Unit: mm



Unit: mm



Unit: mm



Unit: mm

