

# ARPJ-JC401000 (40W, 1000mA)

## 1. Scope

The document details the electrical, mechanical and environmental specifications of a 30W constant current LED driver.

## 2. Input Characteristics

### 2.1. Input Voltage & Frequency

Input Rated Voltage: 100-240V AC

The range of input voltage is from 90 to 264V AC.

	Minimum	Nominal	Maximum
Input Voltage	90V AC	100-240V AC	264V AC
Input Frequency	63Hz	60Hz / 50Hz	47Hz

### 2.2. Input AC Current

0.16A max. @ 230V AC / 50Hz, output 40V DC & full load

### 2.3. Inrush Current (Cold Start)

0.5 A max. @ input 90V AC

### 2.4. Power Factor

0.9 input 100-240V AC & full load

### 2.5. Efficiency (Normal)

86% min. @ input 90V AC / 60Hz, output 40V DC & full load

88% min. @ input 264V AC / 50Hz, output 40V DC & full load

## 3. Output characteristics

### 3.1. Static Output Characteristics

Output Voltage	Rated Load		Output Current	R+N	Remark
	Min. Load	Max. Load			
18-40V	18W	30W	1000mA (Range 950-1050mA)	not test	

### 3.2. Turn On Delay Time

3s max. @ 90-264V AC input & full load

### 3.3. Hold Up Time

50ms min. @ full load & 90Vac 60Hz input turn off at worst case

80ms min. @ full load & 264Vac 50Hz input turn off at worst case

### 3.4. Rise Time

20ms max. @ Rated load

### 3.5. Fall Time

20ms max. @ Full load

### 3.6. Output Overshoot, Undershoot

1% max. When the power on or off

## 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.

## 5. Environment Requirements

### 5.1. Operating Temperature and relative Humidity

-40°C to +60 °C

10%RH to 100%RH

### 5.2. Storage Temperature and Relative Humidity /

-40°C to +85 °C

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

### 5.3. Vibration

10 to 300Hz 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 grade

IP65

## 6. Reliability Requirements

### 6.1. Burn-in Test

The LED driver shall under go a minimum of 4 Hours burn-in test at  $-35^{\circ}\text{C}\pm 5^{\circ}\text{C}$  under full load condition.

The power supply shall under go a minimum of 4 Hours burn-in test at  $45^{\circ}\text{C}\pm 5^{\circ}\text{C}$  under full load condition.

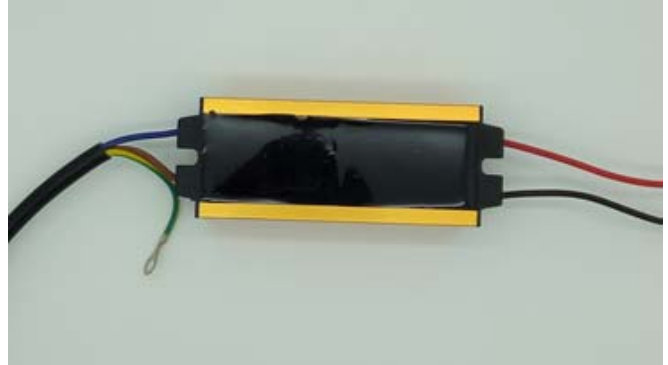
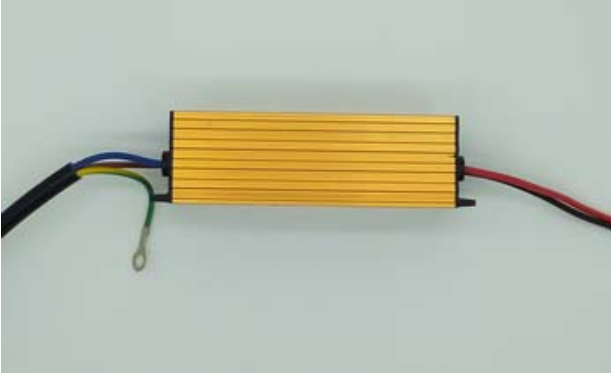
### 6.2 MTBF Qualification

The MTBF shall be at least 30,000 Hours at 25°C, Full load and nominal input condition

## 7. Photos

Dimension 116x36x31mm, Weight 224g





## 8. Package & Label



Box size 16.9x6x3.5cm

## 9. Wire

Type	Wiring Position	
IN	IN	Brown Wire --- L
		Blue Wire --- N
		Green Yellow Wire --- G
OUT	V out +	Load Positive --- Red Wire
	V out -	Load Negative --- Black Wire

