



# SPECIFICATION

Specification <b>EA11011D-12</b>	Revision
Customer Part No	Page 1 of 7

Date	Description of Changes	Approved By
19/07/2017	Updated Energy Saving Standard Details	JG

PRIVATE &  
CONFIDENTIAL

This document and the information herein is the property of Sunpower and any reproduction in whole or part is prohibited unless permission has been specified in writing by Sunpower.

Specification <b>EA11011D-12</b>	Revision
Customer Part No	Page 2 of 7

1.0	INTRODUCTION.....	3
2.0	INPUT SPECIFICATION.....	3
2.1	Input Voltage.....	3
2.2	Input Frequency.....	3
2.3	Input Current.....	3
2.4	Inrush Current.....	3
2.5	Efficiency.....	3
2.6	No Load Power Consumption.....	3
2.7	Hold Up Time.....	3
2.8	Leakage Current.....	3
3.0	OUTPUT SPECIFICATION.....	3
3.1	Load Range.....	3
3.2	Ripple & Noise.....	3
3.3	Line Regulation.....	3
3.4	Load Regulation.....	4
4.0	PROTECTION.....	4
4.1	Over Voltage Protection.....	4
4.2	Over Current Protection.....	4
4.3	Short Circuit Protection.....	4
5.0	ENVIRONMENTAL SPECIFICATIONS.....	4
5.1	Operating Temperature.....	4
5.2	Storage Temperature.....	4
5.3	Cooling.....	4
5.4	MTBF.....	4
6.0	INTERNATIONAL STANDARDS.....	4
6.1	Safety Standards.....	4
6.2	Low Voltage Directive.....	4
6.3	EMI Standards.....	5
6.4	EMS Standards.....	5
7.0	MECHANICAL SPECIFICATIONS.....	5
7.1	Mechanical Diagram.....	5
7.2	Connectors.....	6
7.3	Label.....	6
7.4	Packaging.....	6
7.5	Declaration of Conformity.....	6

Specification <b>EA11011D-12</b>	Revision
Customer Part No	Page 3 of 7

## 1.0 INTRODUCTION

This specification defines the input, output, performance characteristics, environmental and safety requirements for a single phase AC input, 12V 8.33A100W max DC output, switching power supply.

## 2.0 INPUT SPECIFICATION

### 2.1 Input Voltage

The range of input voltage is from 90~264VAC

### 2.2 Input Frequency

The range of input frequency is from 47Hz to 63Hz.

### 2.3 Input Current

The input current is 1.5A at 115Vac or 0.75A at 230VAC input, full load.

### 2.4 Inrush Current

The inrush current will not exceed 60A to 110VAC input or 120A at 230VAC input, cold start, 25°C.

### 2.5 Efficiency

The efficiency is higher than 88% while measuring at nominal line and rated output.

### 2.6 No Load Power Consumption

The no load power consumption will not exceed 0.21W at nominal line.

### 2.7 Hold Up Time

The hold up time is 10mS typical at 240VAC 50Hz input and measured from the last charging pulse to when the main output drops down to 95% of output voltage..

### 2.8 Leakage Current

The maximum leakage current is 25µA at 240Vac, 50Hz.

### 2.9 Energy Saving Standard

Energy Efficiency level VI A. Average Efficiency  $\geq$  88% under normal line input. B. No load power consumption:  $\leq$  0.21W at normal line input

## 3.0 OUTPUT SPECIFICATION

### 3.1 Load Range

Output Voltage	Current Min	Current Max
+12V	0A	8.33A

### 3.2 Ripple & Noise

The peak to peak ripple and noise is 190mV.

### 3.3 Line Regulation

The line regulation is less than  $\pm 1\%$  while measuring at rated load and an input voltage change of  $\pm 10\%$  from nominal line.

Specification <b>EA11011D-12</b>	Revision
Customer Part No	Page 4 of 7

### 3.4 Load Regulation

The load regulation for the 12V is less than  $\pm 5\%$ ; while measuring is done by changing the measured output loading  $\pm 40\%$  from 60% rated load.

## 4.0 PROTECTION

### 4.1 Over Voltage Protection

If for some reason the power supply fails to control itself, the built-in over voltage protection circuit will shut down the outputs to avoid damaging the external circuits. The trip point of the O.V.P. circuit is 150% maximum of the rated output voltage. Protection is Latch Off.

### 4.2 Over Current Protection

Over current protection is at 110 – 150% if rated output current. The adapter can withstand continuous short ant DC output with no damage; and will auto recover when fault condition is removed.

### 4.3 Short Circuit Protection

The power supply will go into hiccup mode against short circuit or overload conditions, and will auto recover when the fault condition is removed.

## 5.0 ENVIRONMENTAL SPECIFICATIONS

### 5.1 Operating Temperature

0°C to +40°C.

### 5.2 Storage Temperature

-20°C to +85°C.

### 5.3 Cooling

Natural convection

### 5.4 MTBF

The power supply shall be designed and produced to have a mean time between failure of 100,000 hours at 25°C

## 6.0 INTERNATIONAL STANDARDS

### 6.1 Safety Standards

The unit is designed to meet the following standards:

IEC60950-1

EN60950-1

UL60950-1

### 6.2 Low Voltage Directive

The unit is designed to meet the following standards:

EN60950-1: 2006+A11:2009 +A1:2010 + A12:2011+A2:2011LVD Certificate No: SG-OF-11377M1

Specification <b>EA11011D-12</b>	Revision
Customer Part No	Page 5 of 7

### 6.3 EMI Standards

The power supply meets with the following:  
 EN55015: 2013+A1:2015  
 EN55032: 2015  
 EN61547:2009  
 EN61000-3-2: 2014  
 EN61000-3-3: 2013

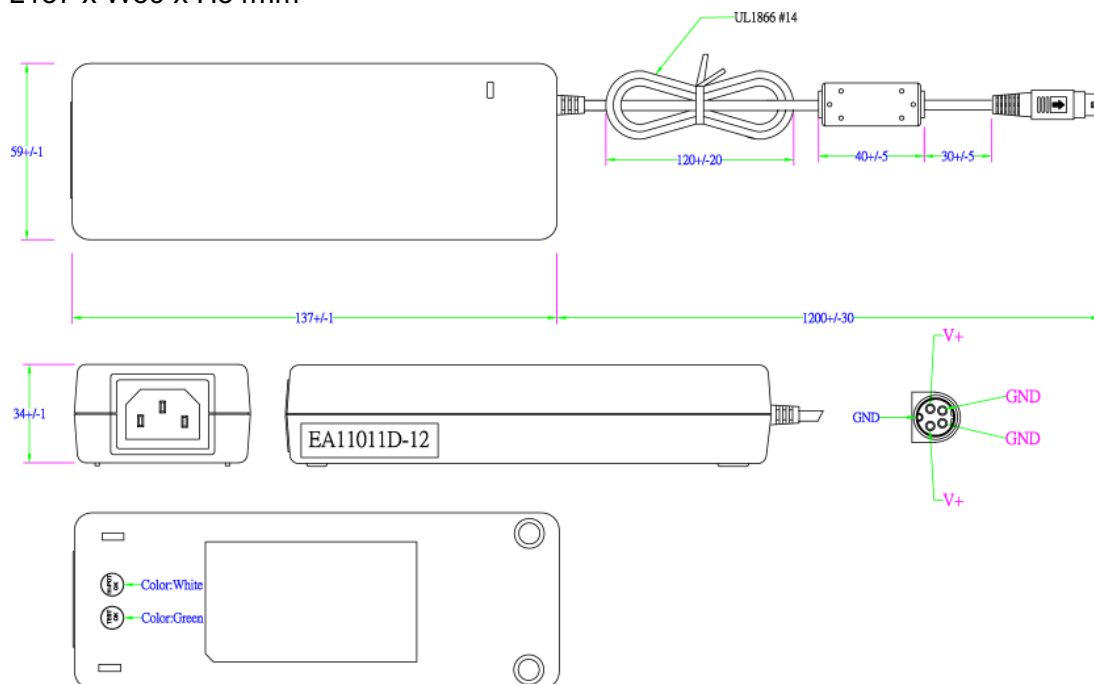
### 6.4 EMS Standards

EN61000-4-2: 2009  
 EN61000-4-3: 2006+A1:2008+A2:2010  
 EN61000-4-4: 2012  
 EN61000-4-5: 2014  
 EN61000-4-6: 2014  
 EN61000-4-8: 2010  
 EN61000-4-11: 2004

## 7.0 MECHANICAL SPECIFICATIONS

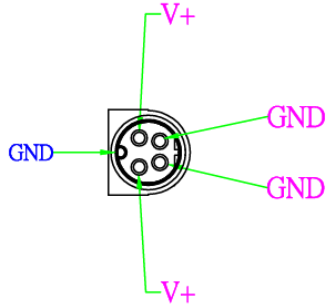
### 7.1 Mechanical Diagram

L137 x W59 x H34mm




Specification <b>EA11011D-12</b>	Revision
Customer Part No	Page 6 of 7

### 7.2 Connectors



### 7.3 Label




44 1189 811 001


AC ADAPTER 电源适配器 电源供应器  
 MODEL 型号 型号: EA11011D-120  
 AC INPUT 输入 输入: 100-240V~2.0A, 50-60Hz  
 DC OUTPUT 输出 输出: 12V=== 8.33A


CAUTION 注意 注意  
 FOR INDOOR USE ONLY 室内产品使用 室内产品使用  
 I.T.E. USE ONLY


DATE CODE: 

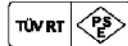
17	18	19			1	2	3	4	5	
出厂日期										
出廠日期	1	2	3	4	5	6	7	8	9	0


  
 I.T.E. POWER SUPPLY  
 41TJ  
 E209833

  
 SGS-130504-EA

  
 R33147

  
 制造商: 昱胜电子股份有限公司

  
 RoHS

  
 MADE IN CHINA 中国制造 中國製造  
 X Y

### 7.4 Packaging

Product should be packaged in individual boxes.

### 7.5 Declaration of Conformity

The below declaration of conformity should be included within the product packaging

We Sunpower Group Holdings Ltd. of Orion House, Calleva Park, Aldermaston, Berkshire, RG7 8SN, UK. declare under our responsibility that our product XXXX is here with confirmed to comply with the requirements set out in the Council Directive on the Approximation of the Laws of the Member States relating to Electromagnetic Compatibility Directive (2014/30/EU),



# SPECIFICATION

Specification <b>EA11011D-12</b>	Revision
Customer Part No	Page 7 of 7

Low Voltage Directive (2014/35/EU), RoHS Directive (2011/65/EU), PFOS Directive (2006/122/EC) and REACH Directive (1907/2006/EC).

Date

Marks Signature  
Quality Manager