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

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 ≥ 88% under normal line input. B. No load power consumption: ≤ 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 ±1% while measuring at rated load and an input voltage change of ±10% from nominal line.

3.4 Load Regulation

The load regulation for the 12V is less than ±5%; while measuring is done by changing the measured output loading ±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+A2:201LVD Certificate No: SG-OF-11377M1

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

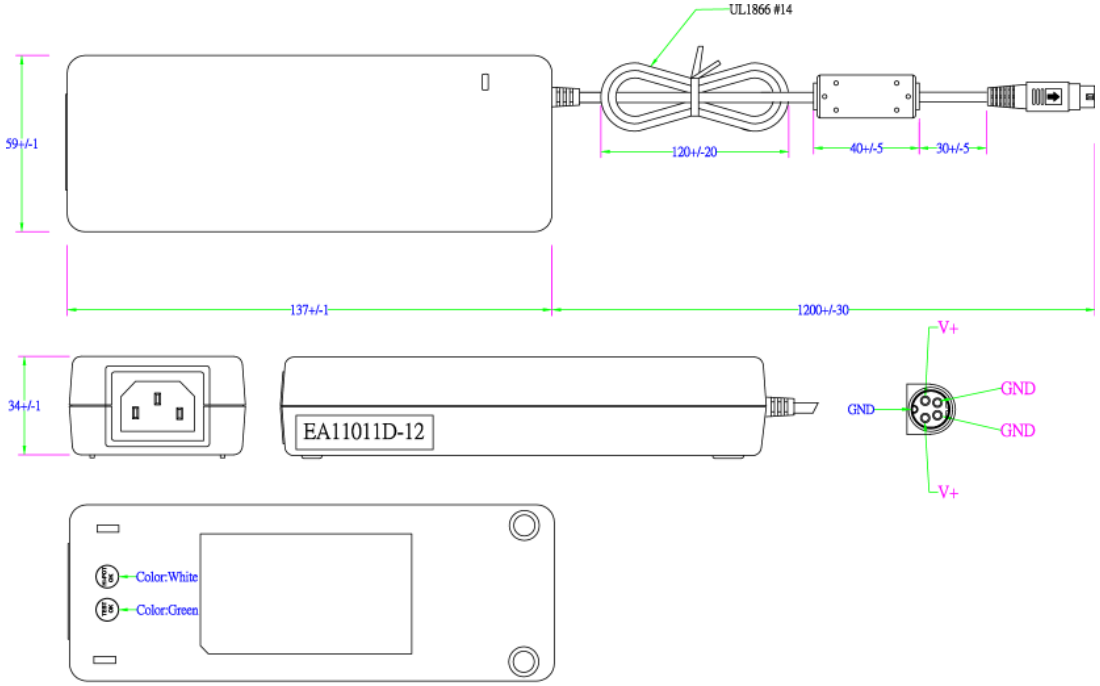
6.4 EMS Standards

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

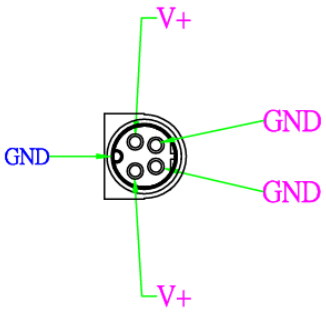
7.0 MECHANICAL SPECIFICATIONS

7.1 Mechanical Diagram

L137 x W59 x H34mm



7.2 Connectors



7.3 Label

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),

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