OPERATING MANUAL

600W DC-DC

DC-AID-7-MX15A

Contents

2. Inspecting Package Contents

When you get a new 600W module, please inspect the instrument as follows:

2.1 Check if there is damage due to transportation

If the package is damaged, please retain them until the instrument and accessories are tested.

2.2 Check package contents

Contents of the case are as bellows, if the content does not match with the packing list or the instrument is damaged, please contact us.

600W DC-DC CNC boost module	1pc
User manual	1pc

2.3 Check the machine

If the machine was damaged; did not work properly or failed to pass performance tests, please contact your dealer or our company.

3. Summary

3.1 Brief introduction

600W High Power DC-DC Boost module is a new step-up module with wide input voltage, output voltage and current adjustable. Using custom radiator, adopting radiator and boost board integrated design; using 1mm double-wound inductors, high-quality filter capacitor, with better power boost output. With a onboard power indicator light, a voltage regulator and current adjustment potentiometer, the output voltage can be adjusted at any time, the input and output terminals using 8500 to ensure long time and reliable working.

3.2 Features

3.2.1 The input and output voltage range is very wide. Input voltage range: 12V ~ 60V, the output voltage range: 12V ~ 80V;

3.2.2 Ultra-low input and output pressure;

3.2.3 Using 1mm double-wound inductors, high-quality filter capacitor, boost power output with better quality;

3.2.4 With a voltage regulator and current adjustment potentiometer, the output voltage can be adjusted at any time.

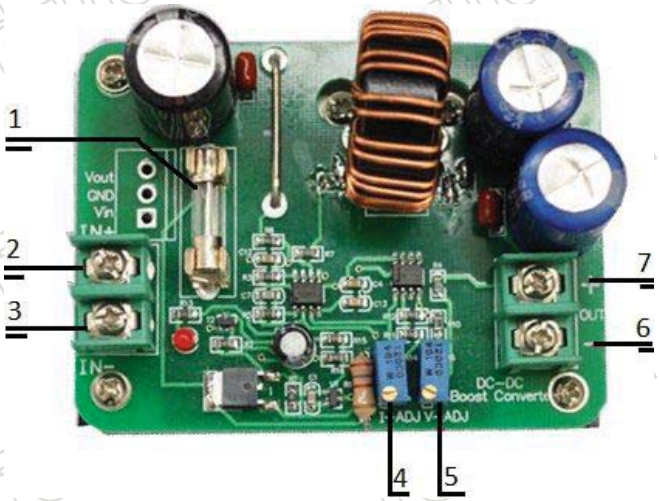
3.3 Technical data

Item	Parameter
Input voltage	12V~60V
Input current	15A（max）
Output voltage	12V~80V(Continuously adjustable)
Output current	0~9.99A
Output power	600W（max.）
Efficiency	Approx 85%
Ripple	≤50mV
Short circuit protection	15A fuse
Adjustment mode	Potentiometer
Connection	8500 terminals
Dimensions	85×62×63(mm)(W*H*D)
Weight	230g

3-1 600W module technical data

4. Instrument Introduction

The module Introduction



Item	Introduction	Item	Introduction
1	15A Fuse	5	Voltage adjustment
2	Positive input	6	Negative output
3	Negative input	7	Positive output
4	Current adjustment		

4-1 600W Module Introduction

5. Operation

5.1 Connection

Make sure the input and output are connected properly; the input voltage meets the requirements, and reverse prohibited.

Note: Input voltage range: 12V ~ 60V;
Output voltage range: 12V ~ 80V;
Input current range: 0A ~ 15A;
Output current range: 0A ~ 10A

5.2 Measuring upper limit voltage U_0

Input connected correctly, measuring the output voltage U_0 (with no load), U_0 is the upper limit voltage value of V-ADJ with load.

5.3 Adjust output voltage value

The output voltage value can be adjusted according to the actual situation.

I-ADJ potentiometer which can adjust the input current, V-ADJ can adjust the output voltage.

After the load is connected, adjust I-ADJ, then the output voltage will change, when adjust counterclockwise the output voltage decreases, while adjust clockwise the output voltage increases, the output voltage does not increase until up to U_0. Adjustment of V-ADJ can adjust the output voltage, clockwise adjustment increases voltage, counterclockwise adjustment decreases voltage. Whatever the input voltage is increased or decreased, the output voltage is in constant state.

If the load is connected, adjust I-ADJ, the output voltage is constant, and the output voltage is in constant state, adjust V-ADJ to change the output voltage, adjust clockwise to increase the output voltage, adjust counterclockwise to reduce output voltage.

6. Applications

6.1 DIY an output adjustable vehicle power supply or laptop power supply, only need connect 12V power supply to the input terminals, the output voltage can be adjusted from14V to 80V, but the output voltage cannot be lower than the input voltage

6.2 Boost charger, it can be use as a 12V power supply to charge a battery higher than 12V, for example, a 24V battery, the charging current can be adjusted

6.3 Power electronic devices, it can work properly as long as the voltage within the range of requirements and the current does not exceed the rated current.

6.4 Pre-supply system, a project, the input voltage is 12V ~ 18V, system board needs 24V and high power, the power of common DC-DC module is too small, so the 600W module will be your best choice.

7. Cautions

The effective power P = input voltage × 10A, the max. power of the module reaches 600W under specified conditions, the max. output power is affected by the input voltage and current, for example:

Input voltage is 12V: the max. output power P= 12V×10A=120W

Input voltage is 24V: the max. output power P= 24V×10A=240W

Input voltage is 60V: the max. output power P= 60V×10A=600W

Conversion efficiency: approx 85% (conversion efficiency affected by input / output voltage & current)

8. Warranty and service

Thank you for purchasing our products. To maximize the use of the new product features, we recommend that you take the following steps:
1 Read safe and efficient use instruction.
2 Read the warranty terms and conditions.

We warrants to the original purchaser that its product and the component parts thereof will be free from defects in workmanship and materials for a period of one year from the data of purchase.

We will repair or replace, at its' option, defective product or component parts. Returned product must be accompanied by proof of the purchase date.

Exclusions: This warranty does not apply in the event of misuse or abuse of product or as a result of unauthorized alternations or reapers. It is void if the serial number is alternated, defaced or removed.