OPERATING MANUAL

B3606 DC-DC
NC Buck Module

3.1 Brief introduction
B3606 is a fully digital display NC buck module. Small size, high power, high efficiency and stable.Join the High-Speed
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Microcontroller precise
measurement and calculation, you can precisely regulate the output voltage and current , built-in 10 groups of memory locations can be stored and call up the parameters at any time. The module is very easy to use. Equipped with a four LED digital tube, you can display the voltage, current, power, capacity and other parameters in real time. Meanwhile, the machine has automatically output after power, auto rotate functions. The functions can be turned on or off according to use.

3.2 Main function

3.2.1 The use of advanced microprocessors can be precisely regulated output voltage and current;

3.2.2 With save function, can store 10 sets of parameters, and can freely store, recall;

3.2.3 Digital display, easy to use;

3.2.4 With a constant voltage, constant current status;

3.2.5 Using four high-brightness LED, can display the output voltage, current, power, and capacity and other parameters in real time;

3.2.6 Automatic / manual switch to display voltage, current, power, capacity and other parameters;

3.2.7 With OUT, CV and CC indicator, you can view real-time the work status;

3.2.8 The module can set whether to automatically output after power-on;

3.2.9 Can easily save the current set of voltage and current values.

3.3 Technical data

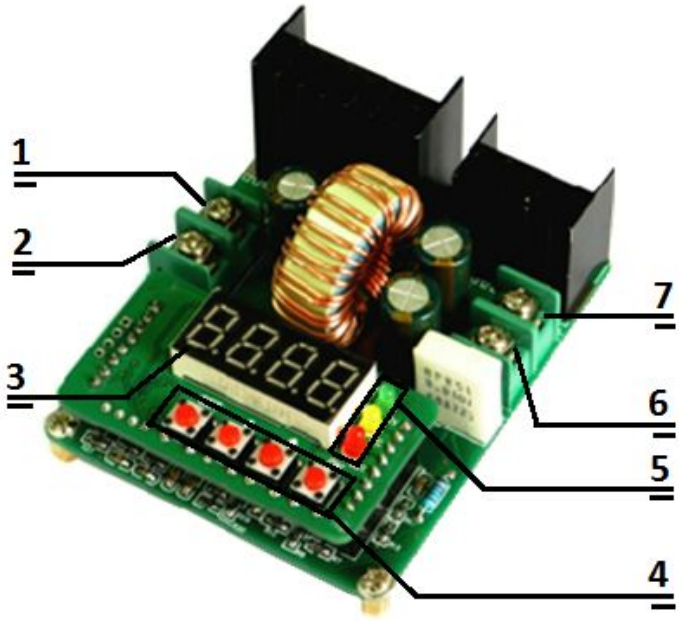
Item	Parameter
The modular nature	Non-isolated Buck（BUCK）
Input Voltage	6V~40V
Output Current	0~6A
Output voltage	0~36V
Conversion efficiency	92%(max)
Frequency	150KHz
Short circuit protection	Constant Current

Operating Temperature	- 40℃~+85℃
Control method	Digital control + LED display
The voltage regulator / display resolution	0.01V
The minimum resolution of power Display	0.001W
The current regulator / display resolution	0.001A
The minimum resolution of capacity	0.001AH
Output Ripple	≤50mV
Weight	116g
Dimensions(W*H*D)	80×66×33(mm)

3-1 Technical data

4.Instrument Introduction

4.1 Structure Description



Item	Introduction	Item	Introduction
1	Positive input	5	Indicator of work status
2	Negative input	6	Negative output
3	LED	7	Positive output
4	Button		

4-1 The introduction of B3606

4.2 Display Introduction

Display	Introduction
00.00	Voltage:00.00~40.00V
0.000	Current:0.000~6.000A
P.000、P0.00、P00.0、P000.	Power value, the unit is W, the position of the decimal point is changed with power. For example: P. 123 represents 0.123 W, P1.23 represents 1.23 W, P12.3 represents 12.3 W, P102. represents 102 W.
C.000、C0.00、C00.0、C000.	Capacity value, the unit is AH, the position of the decimal point is changed with capacity. For example:C.123 represents 0.123AH，C1.23 represents 1.23AH，C12.3 represents 12.3AH, C123.represents 123AH
--0-	Special function 0
--1-	Special function1
--2-	Special function2
--y-	Open the special function
--n-	Close the special function
SA.-*（* represents 0~9）	Save the parameters to the store location 0~9
Lo.-*（* represents 0~9）	Bring up the parameters from storage location 0~9
----	Save the parameter
⌈--n	Restore factory settings

4-2 The display introduction of B3606

5. Operation

The module has two kinds of usage: one is simple mode, another is fully functional mode. The default is simple mode, if you need fully functional mode, you can open it by yourself.

5.1 Simple mode

5.1.1 Connect input and output properly, you should guarantee that the input voltage is in the range of requirement. It is forbidden to reverse connection, or it will be burnout. The input voltage must be higher than the output voltage of 1.5V or more.

The range of input voltage:6V~40V;

The range of output current:0A~6A;

The range of output voltage:0V~36V.

5.1.2 Setting the voltage and the current value. You should note that there are no units of the current and voltage, users can distinguish them through the position of decimal point. The decimal point position of the voltage is in the second decimal place(e.g., 00.00), and the current is in the first(e.g., 0.000).

The setting method is as follows:

After electrify, the LED default display the voltage value, the format of voltage display is"00.00", press "SET" button to switch to the current value, the format of current value display is"0.000". Press the ⬆ button to increase the value, press the ⬇ button to reduce the value, press the button can accurate regulation, press the button for a while can regulate quickly. If the voltage or current value has been changed, press the "SET" button the LED display the "----"said that the voltage or the current has been saved . If there is no change of voltage or current value, press "SET" button will switch to the current or voltage value.

5.1.3 After the setting, press the "OK" button to output.

5.1.4 Under the output state, press the ⬆ button can increase the value and press the ⬇ button can reduce the value when the LED display the voltage value, press the ⬆ button can increase the value and press the ⬇ button can reduce the value when the LED display the current value. Press the button can accurate regulation, press the button for a while can regulate quickly. Under the output state, press "OK" button can switch display parameters such as voltage, current, power and capacity, press the button for 3 seconds will automatically take turns to display, press "OK" button for a while again will

cancel automatic take turns to display. In the output state, the⬆and⬇button is invalid.

5.1.5 Under the output state, press the "SET" button to close the output.

5.2 Fully functional mode

This module has three special functions, the default is closed, if necessary, you can open them by yourself.

Function 0:After electricity, it will output automatically.

Function 1: Save and bring up the parameters, display the power and capacity.

Function 2: Take turns to show the parameters after output Automatically.

5.2.1 Open/close method

Press the"OK" button for a while, then electricity, the LED will take turns to show among "--0-","--1-"and"--2-". When displaying "--0-", release the"OK" button, it will open or close the function 0. When displaying "--1-", release the"OK" button, it will open or close function 1. When displaying "--2-" , release the"OK" button, it will open or close function 2. After releasing the "OK" button, the "--y-" displays in the digital tube indicates that you have already open the current function, the "--n-" means that you have closed the current function.

5.2.2 Enable the function 0, it will automatic output after electricity.

5.2.3 Enable the function 1, in the condition of no output, press the "SET" button, it will take turns to display the parameters which among voltage "00.00", current "0.000", bring up the parameters "Lo.- 0" and save the parameters "SA.- 0". We will illustrate the function as follow:

For example:we need store10V, 1.5 A in the storage location 1 and bring up the parameter from storage location 1.

1. Press the "SET" button to switch to the voltage value, setting voltage value of 10.00 V, press "SET" button again to save the voltage value.

2. Press the "SET" button to switch to the current value, setting current value of 1.500 A, press "SET" button again to save the current value.

3. Press the "SET" button to switch to the "SA.-0", press the⬆or⬇button to

select the storage location, here we need to adjust to the "SA.-1", press "OK" button to store the "10 V, 1.5 A" in the storage location 1.

4. Press the "SET" button to switch to "Lo.-0", press the ⬆ or ⬇ button to select the storage location which the parameter need to bring up, here we need to adjust to the "Lo.-1", then press the "OK" button to bring up the parameters of storage location 1.

5. This module has a total of 10 groups of storage location of 0~9, each storage location can be arbitrarily set the voltage and current value,and each location is independent of each other.

5.2.4 Enable the function 2, after output, it will automatic take turns to display the parameters such as voltage, current, power and capacity.