CLEN3603 DC-DC Digital Control Step-down Module

User Manual

B3603 DC-DC Digital Control Step-down Module is a digital control and digital display step-down module,it has small volume, high power, high efficiency,it working stability.It controlled by high speed micro controller, can adjust the output voltage and current accurately.It has 10 groups of storage location, can store and bring up the parameters at any time.It equipped with four of the eight period LED digital tube,which can real-time display voltage, current, power, capacity and other parameters. At the same time, the machine has automatic output after electrify, automatic take turns to display parameters and other functions, you can open or close it according to the needs.
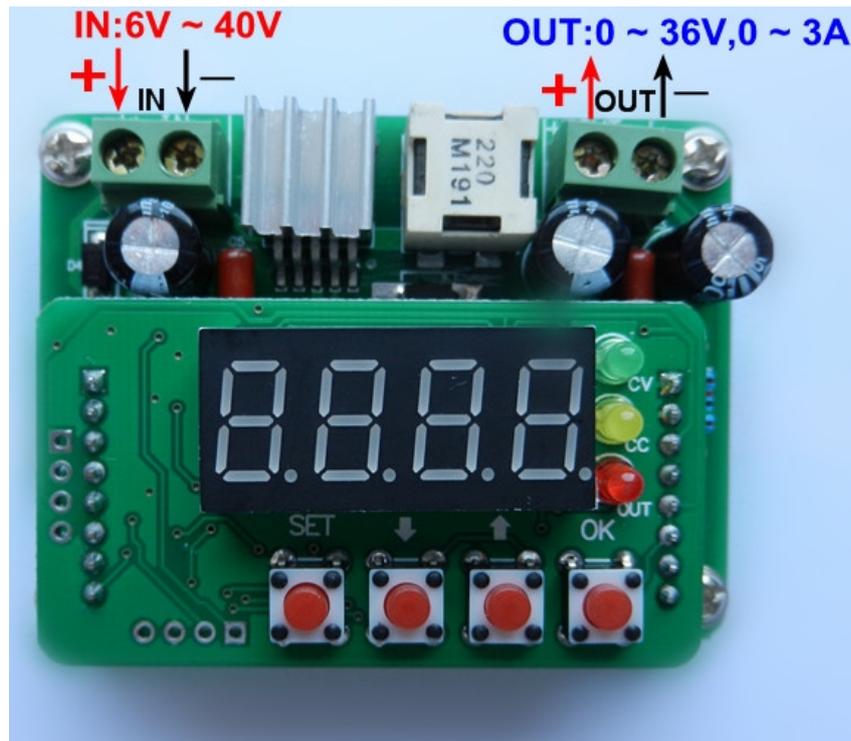
Main features:

Digital display, convenient and easy to use

Constant voltage and constant current state

OUT,CV and CC indicator light

Adjust output voltage and current value accurately

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

It can be set whether automatic output or not after electrify

It can be set whether take turns to display voltage, current, power and capacity or not after output

10 groups of storage location, free storage and bring up

One key to save voltage and current value

Technical parameters:

Input voltage: 6V ~ 40V
Output voltage: 0 ~ 36V
Output current: 0 ~ 3A
Voltage regulation/display resolution: 0.01 V
Current regulation/display resolution: 0.001 A
The minimum display resolution of power: 0.001 W
The minimum display resolution of capacity: 0.001 AH
Conversion efficiency: up to 92%
The output ripple: $\leqq$ 50 mV
Working temperature: - 40℃~ + 85 ℃
Working frequency:150 KHz
Short circuit protection:Constant current
Input reverse connect protection:No, if necessary please install diode
Connection mode: Terminals
Size (mm):66 (long)* 50 (wide) * 21 (high)
Weight: 43 g

Usage:

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.

Simple mode usage:

1、Properly connect input and output,guarantee the input voltage within the range of requirement.It is forbidden to reverse connection, or it will be burnout.
2、Setting the voltage and the current value,the setting method 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 increase the value,press the ⬇ button reduce the value, short press the button can accurate regulation, long press the button can quickly regulate.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" key will switch to the current or voltage value.
3、After finish setting, press the "OK" button to output.
4、In the output state, press the ⬆ button can increase the output voltage value and press the ⬇ button can reduce the output voltage value when the LED display the voltage value,press the ⬆ button can increase the current value and press the ⬇ button can reduce the current value when the LED display the current value,short press the button can accurate regulation, long press the button can quickly regulate. In the output state, short press "OK" button can switch display parameters such as voltage, current,

power, capacity, long press for 3 seconds will automatically take turns to display, long press"OK"button again will cancel automatic take turns to display.In the output state,the⬆and⬇button is invalid.

5、In the output state, press the "SET" button to close the output.

Fully functional mode usage:

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

Function 0:After electricity,it will automatic output.

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

Function 2: Automatic take turns to show parameters after output

Open/close method:

Long press the"OK" button, then electricity, the LED will take turns to show among "--0-","--1-"and"--2-" .When display "--0-",release the"OK" button will open or close function 0, when display "--1-" ,release the"OK" button will open or close function 1, when display "--2-" ,release the"OK" button will open or close function 2. After releasing the "OK" button the digital tube display "--y-" said already open the current function, the digital tube display "--n-" said it already close the current function.

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

2、Enable the function 1, in the condition of no output, press "SET" button will take turns to display among voltage "00.00", current "0.000", bring up the parameters "Lo.- 0" and save the parameters "SA.- 0". Below illustrate this function:

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

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

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

③ Press "SET" button to switch to the "SA.-0", press the⬆or⬇button to select the storage location, here need to adjust to "SA.-1", press "OK" button to store the "10 V, 1.5 A" in the storage location 1.

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

⑤ This module has total of 0 ~ 9 common 10 groups of storage location, the storage location can be set arbitrary voltage and current value.

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

Note:

1、Properly connect input and output, it is forbidden to reverse connection, or it will be burnout.

2、This module is a step-down module, input voltage need over output voltage more

than 1.5 V.

3、Output under 2A natural cooling, output above 2A shall strengthen heat dissipation.

Display:

00.00: voltage value ,00.00 ~ 36.00 V

0.000: current value, 0.000 ~ 3.000 A

P. 000, **P0.00**, **P00.0**, **P000.** : power value, unit W, the position of the decimal point as the power to change the position. For example: P. 123 said 0.123 W, P1.23 said 1.23 W, P12.3 said 12.3 W, P102. said 102 W

C. 000, **C0.00**, **C00.0** and **C000.** : capacity value, unit AH, the position of the decimal point as the volume change the position. For example: C.123 said 0.123AH, C1.23 said 1.23 AH, C12.3 said 12.3 AH, C123. said 123 AH

--0-、 **--1-**、 **--2-**:special function0, 1, 2,

--y-: open special functions

--n-: close the special function

SA. - * (*:0 ~ 9) : save the parameters to the store location 0 ~ 9

Lo. - * (* :0 ~ 9): bring up the parameters from storage location 0 ~ 9

----:save the voltage and current value