DPS5005

Programmable power supply
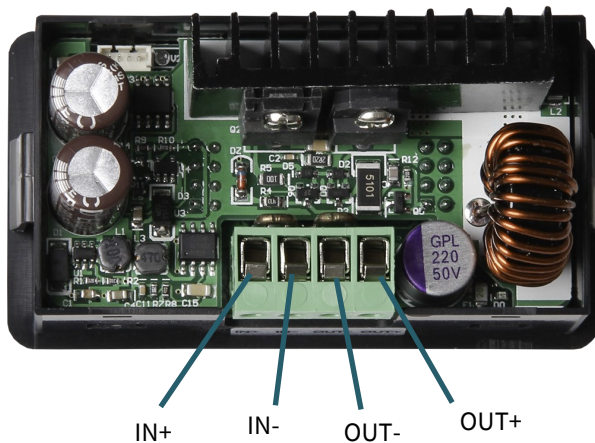

1. GENERAL INFORMATIONS

Dear customer,
thank you for purchasing our product. In the following, we will show you how to use your product.
Should you encounter any unexpected problems during use, please do not hesitate to contact us.

This power supply unit is characterized by its outstanding precision and accuracy and combines analog and digital technologies in an advanced design. The adjustable output reaches up to 50V or 5A and can be precisely configured in 0.001A steps. The power supply is additionally equipped with a switch-off parameter memory and ten programmable data memories. The operation of the device has been optimized for particularly easy operation and the colour display offers particularly detailed and comprehensive information. Among other things, the current voltage and current values, presettings and output powers can be displayed here. Dynamic notification symbols also facilitate clarity. The additional settings menu offers maximum control of overcurrent and overvoltage values as well as other parameters. The DPS5005 offers modern design and advanced technology in a compact package, making it the ideal power supply.

2. TECHNICAL DETAILS

Input voltage	6—55 V
Output voltage	0—50 V
Output current	0—5 A
Output power	0—250 W
Weight	88 g
Display size	1,44"
Case cutout	39 x 71
Dimensions	42 x 45 x 80 mm
Accuracy of output voltage	± 0,5 %
Accuracy of output current	± 0,5 %

3. CONNECTION DETAILS

IN+   IN-   OUT-   OUT+

IN+	Positive input
IN-	Negative input
OUT+	Positive output
OUT-	Negative output

Attention! Make sure that the input voltage is always at least 1.1 times the output voltage. In addition, always ensure sufficient ventilation of the device for heat dissipation.
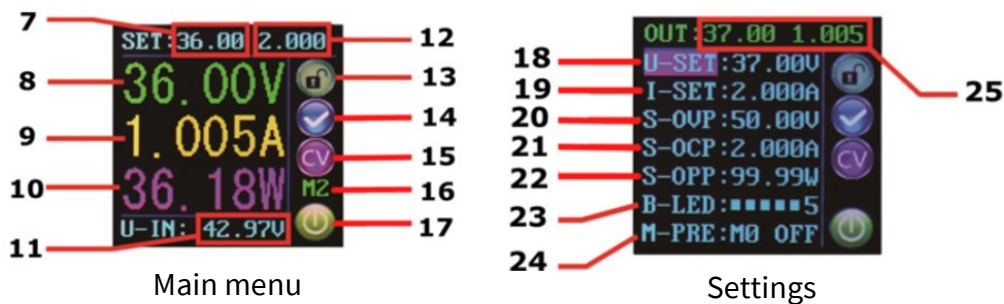
The permissible range of the input voltage is 6—55 V (DC). Always ensure a sufficient safety distance and never exceed the maximum permissible input voltage. The non-observance can cause substantial damage at your device.

Operate the device exclusively with direct current! Operating the device with alternating current can lead to fatal electric shocks and irreparable damage to the device.

After the first start, the welcome screen is displayed, followed by the main screen. The main screen displays selected voltage and current limits. When the output is active, the current actual values are also displayed. On the right side of the screen there are icons and prompts that indicate the system status. For a detailed description of the display, refer to the following diagram.

Voltage settings, arrow upwards, M1 data group

1,44" LCD-Display

Rotrary switch, key lock

Data input, extract / save data from / in data group

Activate / deactivate output

Current settings, arrow downwards, M2 data group

Main menu

Settings

7	Output voltage (default)
8	Output voltage (current value)
9	Output current (current value)
10	Output power (current value)
11	Input voltage
12	Limit of output current
13	Lock / enlock keys
14	Normal / abnormal status
15	Constant voltage / current
16	Number of data group
17	Active / inactive output
18	Preset output voltage

19	Preset limit of output current
20	Preset limit of overvoltage
21	Preset limit of overcurrent
22	Preset limit of overload
23	Preset screen brightness
24	Preset number of data group
25	Actual value of output voltage / current

5. USE OF DEVICE

Output voltage and current limitation

Press V/↑ to enter the voltage setting mode. Press the Rotary encoder to move the cursor to the numeric value you want to change. Turning the knob clockwise increases the value and counter clockwise decreases the value. Press V/↑ again to exit. Alternatively, after 30 seconds of inactivity, the setting mode will automatically exit. Press A/↓ to set the output current limit in the same way.

Configuration of data and conservation values

Press SET in the main screen to enter the data settings menu.

Setting the voltage and current limits

Navigate through the menu to go to the U-SET (Voltage) or I-SET (Voltage Limit) option. Set the Output voltage and/or output current limitation according to your requirements. You can then use the SET button to return to the menu options. Press the SET button again to exit the menu.

Setting the protection values

Navigate through the menu to go to the limit options Option S-OVP (overvoltage protection), S-OCP (overcurrent protection) or S-OPP (overpower protection). Use the knob to set the desired value. Press the SET button to return to the menu options and press the SET button again to exit. The output is automatically deactivated when one of the protection value limits is reached.

Attention! These are global limit values and should not be confused with the preset voltages and currents.

Adjusting the screen brightness

Navigate to the B-LED option to adjust the display brightness. Turn the Rotary encoder to adjust the brightness from 0 to 5. O defines the darkest and 5 the brightest setting. Press the SET button to return to the menu options. Press the SET button again to exit the menu.

Configuration of data group

Data group M0
The M0 data group is a special case. It is the standard data group. Each time an alternative data group is selected or changes are made to the existing settings, M0 is immediately overwritten with the newly selected data. M0 is therefore a real-time duplicate of the currently selected data group. It is also the data set that is stored when the power is turned off and recalled the next time the power is turned on. This is done automatically and transparently without user input.

Selecting the processing data group
Navigate to the option **M-PRE** to edit a data group. Rotate the rotary switch to choose the number of the data group which should be edited. After finishing the settings hold down SET until the number of the data group is shown on the right side of the screen. By pressing SET again, you leave the data group settings.

Activation / deactivation
Navigate to the option **M-PRE** and press the rotary switch. After that rotate the switch to choose the data group by its number which you want to see and edit. Press it again to change the status of the option **M-PRE**.
By activating this option, the output stays the same by selecting a data group.
By deactivating this option, the output is automatically switched off by selecting a data group.
Hold down SET until the number of the data group is shown on the right side of the screen. The data value will be saved in the data group of the shown. Press SET again to return to the menu. To leave this menu press SET.

Data group quick selection

Key combination to choose M1 / M2
Hold down V/↑ or A/↓ for longer than 3 seconds to select the data group M1 or M2 as a quick selection. The number of the according data group is shown on the right side of the screen. The data group M1 and M2 are perfect for frequently used settings because of their quick selection function.

Selecting an arbitrary data group
Hold down SET for more than 3 seconds to show M0 on the right side of the screen. Through rotating the rotary switch is it possible to choose the requested data group (M0 - M9). To activate the chosen data group, press SET.

Editing the chosen data group
To edit the chosen data group press V/↑ or A/↓ to navigate upwards or downwards through the menu options. Press the rotary switch and the selected numerical value will be highlighted with the cursor. More actuations of the rotary switch will lead to scrolling through the possible characters. After the desired value is selected, hold down SET until the number of the data group is shown on the right side of the screen. The value of the data will now be saved in the selected data group. By pressing SET again, you return to the menu. You can   leave the menu by pressing SET.

Status of the selected data group at the starting of the device
You can configure the device to automatically activate the output when the device is turned on. Navigate to do this in the S-INI option and set the value to ON to activate the option. Once you have selected the de sired setting, press and hold the SET button until the
data group number is displayed on the right side of the screen. The data value is now stored. Press the Set button again to return to the previous menu. To exit the menu, press the Set button again.

Activating and deactivating the output
You can press the ON/OFF button at any time to activate or deactivate the output.

Key lock
The keys can be deactivated to avoid unintentional changes. You can hold the rotary switch longer than 3 seconds to block the keys or to
unlock them again at any time . The status of the key lock is shown with the lock symbol on the right side of the screen.

Our information and redemption obligation according to the electro-law (ElektroG)

Symbol on electrical and electronic products :

This crossed-out bin means that electrical and electronic products do not belong into the household waste. You must hand over your old appliance to a registration office. Before you can hand over the old appliance, you must remove used batteries and accumulators which are not enclosed by the device.

Return options :

As the end user, you can hand over with the purchase of a new device your old appliance (which has essentially the same functions as the new one) free of charge for disposal. Small devices which do not have outer dimensions greater than 25 cm can be submitted independently of the purchase of a new product in normal household quantities.

Possibility of restitution at our company location during our opening hours :

Simac GmbH, Pascalstr. 8, D-47506 Neukirchen-Vluyn

Possibility of restitution nearby :

We send you a parcel stamp with which you can send us your old appliance free of charge. For this possibility, you must contact us via e-mail at service@joy-it.net or via telephone.

Information about packaging:

Please package your old appliance safe during transport. Should you not have a suitable packaging material or you do not want to use your own material, you can contact us and we will send you an appropriate package.

7. SUPPORT

If any questions remain open or problems arise after your purchase, we are available by e-mail, telephone and with a ticket support system to answer these.

E-Mail: service@joy-it.net
Ticket-System: http://support.joy-it.net
Telephone: +49 (0)2845 98469 – 66 (10 - 17 o'clock)

For further information visit our website:
www.joy-it.net

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