RG7202N Voltage Regulator Control Unit.

Picture 1

Technical Instructions and User Manual.

---------- General Information ----------

- Displays input and output voltages simultaneously.
- Controls the DC motor to keep the output voltage stable.
- Protects the connected load from high and low voltage.
- Records the highest and lowest voltage values.
- Logs the reasons for output shutdowns and the number of shutdowns.
- Compatible with motorless-switch devices.
- Provides automatic operation between 40 Hz and 99 Hz.

-------- Device Features ----------

- **The device automatically stores certain parameters in memory. It records the highest and lowest values of the input voltage and logs the number of times the output was deactivated.**

• Viewing the Highest and Lowest Values:

Press the upper button once without entering the menu to display the highest recorded voltage on the upper screen, while the lowest voltage blinks on the lower screen.

• Viewing the Shutdown Count:

Press the upper button again to see the number of times the output was deactivated due to high voltage on the upper screen, and due to low voltage on the lower screen.

• Clearing the Data:

The screen blinks for 5 seconds. During this time, pressing the middle button will clear the records. If no button is pressed, the device automatically returns to the main screen.

---------- Menu Usage ----------

Press the «SET» button to enter the menu. The upper display will show “P..” and the lower display will show “out”. Use the up/down buttons to navigate through the parameters in the menu. When you reach the desired parameter, press the «SET» button again. The number “P..” will flash on the upper display. After that, use the up/down buttons to change the value.
To select another parameter, press the «SET» button again and move to another parameter with the up/down buttons. To exit the menu, press the «SET» button while the upper display shows “P.” and the lower display shows “out”.
Or, if no buttons are pressed for 20 seconds, the device saves the changes and returns to the main display.

P num	*explanation*	*Ekranda.*
0	**Enter or exit the menu.**	***Pr 0*** ***out***
P.01	**Regulator desired output voltage.** Regulator output voltage setpoint. This parameter sets the output voltage of the regulator. Factory setting: **220 v** Ayar aralığı**:** **1 v ... 500 v**	***P.0 1*** ***2 2 0***
P.02	**Regulator output voltage tolerance value.** The motor remains stationary when the output voltage is greater than P.01 - P.02 and less than P.01 + P.02. (220 + 3 = 223, or 220-3=217) Factory value: 3V	***P.0 2*** ***0 0 3***

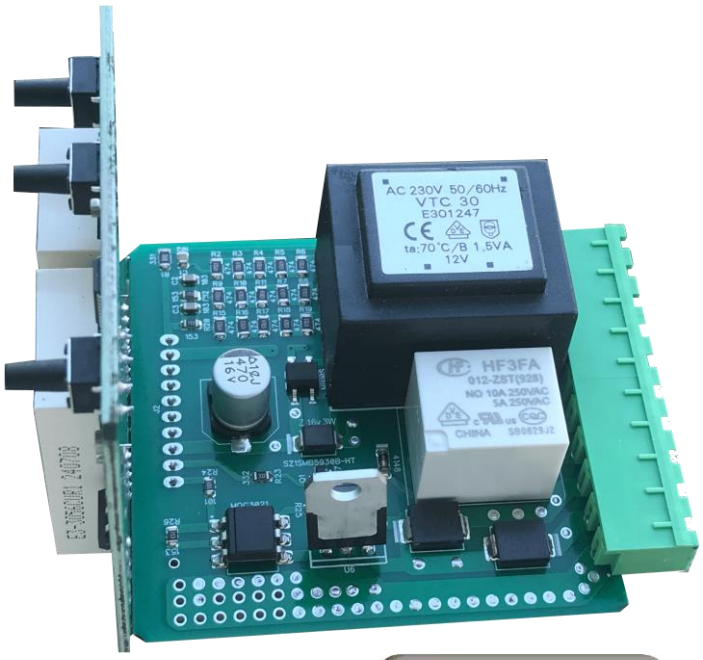
	Setting range: 1V - 25V	
P.03	**Buzzer.** There is no Buzzer installed on the card. Factory setting: **on = Aktive**. **oFF = Passve**. If '**P3 = on'**, the exit protection time is displayed on the upper screen and the exit LED flashes until the output is activated.	***P.0 3*** **OFF**
P.04	**Regulator output upper protection voltage.** The device de-energized the relay when the regulator output voltage exceeds the regulator output upper protection voltage value. Factory value: 242v Setting range: 1v -500v	***P.0 4*** ***2 4 2***
P.05	**Regulator output lower protection voltage.** The device de-energized the relay when the regulator output voltage belows the regulator output lower protection voltage value. **Factory setting: 198v** **Setting range: 1v ...500v**	***P.0 5*** ***1 9 8***
P.06	**De-protection time.** The regulator output voltage determines the time to wait for the device to exit the protection (reset the relay) after it reaches 5V below the set regulator output upper protection voltage or 5V above the regulator output lower protection voltage. Factory setting: 5 sec. Setting range: 1 sec...25 sec.	***P.0 6*** ***0 0 5***
P.07	Protection time. It determines the time to wait for the device to enter the protection and de-energized the relay after the regulator output voltage exceeds the set regulator output upper protection voltage value or belows the regulator output lower protection voltage value. (If the voltage returns to normal within this period, the device will not de-energized the relay.) Factory setting: 5sec. Setting range: 1sec... 25sec.	***P.0 7*** ***0 0 5***
P.08	**Voltage value to change coal location:** Output voltage with the time interval to be waited in P.09, this parameter value changes every 5 seconds. Factory setting: 5 v. Setting range: 0–25 v.	***P.0 8*** ***0 0 0***
P.09	**The time interval for the coal location to change is mandatory:** **The parameter determines the maximum time the coal will remain fixed.** **After the time is up, the output voltage of the motor changes according to the value in P.08.** **If P.08 = 15 and P.09 = 5, Output** **5 minutes 220v,** **5 minutes 235v,** **5 minutes 220v,** **5 minutes 205v,** **5 minutes 220v,** **the output voltage changes continuously on the circle.** **Factory setting: 5 min.** **Setting range: 0 - 250 min.**	***P.0 9*** ***0 0 5***
P.10	**Voltmeter output average display**. If the output voltage (P.02) is within the tolerance value, the upper voltmeter will display the P2 value on the screen. If it is negative, it will be reflected as if there is voltage at the output. Factory setting: 1 Setting range: 1 = Active, 0 = Passive	***P.10*** ***0 0 1***

P.11	**Motor speed.** Factory setting: 5 Setting range: 1... 10.	***P.11*** ***0 10***
P.12	**AUTO STOP MOTOR.** It is activated in regulators without switches. Factory setting: 0 (Passive) Setting range: 0 (Passive) 1 (Active) Working principle. If the parameter is active, first the microprocessor calculates the place where the switch will be used and records it in its memory. If this parameter is first activated, if there is high or low voltage, the microprocessor does not cut the voltage from the motor for 20 seconds. The microprocessor notices that the coal remains stationary and records this place as the switch place. When the coal comes to the same place again, the microprocessor cuts the voltage from the motor immediately. In this case, if there is high voltage at the input, the dot on the 2nd digit of the upper screen lights for 2 seconds. If there is low voltage at the input, the dot on the 2nd digit of the lower screen lights for 2 seconds. When the module is installed in a new device, the old switch place must be reset. In order to reset the old switch record place, it is necessary to completely cut the regulator voltage. By holding down the upper button, it is enough to apply voltage to the device again.	***P.12*** ***0 0 0***
P.13	**Number of starts.** Factory setting: 49. Setting range: 0... 98. If the parameter is 0, after the power comes, even though the voltage is normal, the microprocessor does not activate the relay. If only the middle button is pressed, the microprocessor activates the relay. In other words, if the button is not allowed after the voltage comes, no voltage is given to the system. If P13 = 97, the relay works in reverse. In other words, buzzer mode	***P.13*** ***0 49***
P.14	**Software version.** **Technical instructions and user manual are currently 63.**	***P.14*** ***0 63***

********** **Tecnical Specifications** **********.

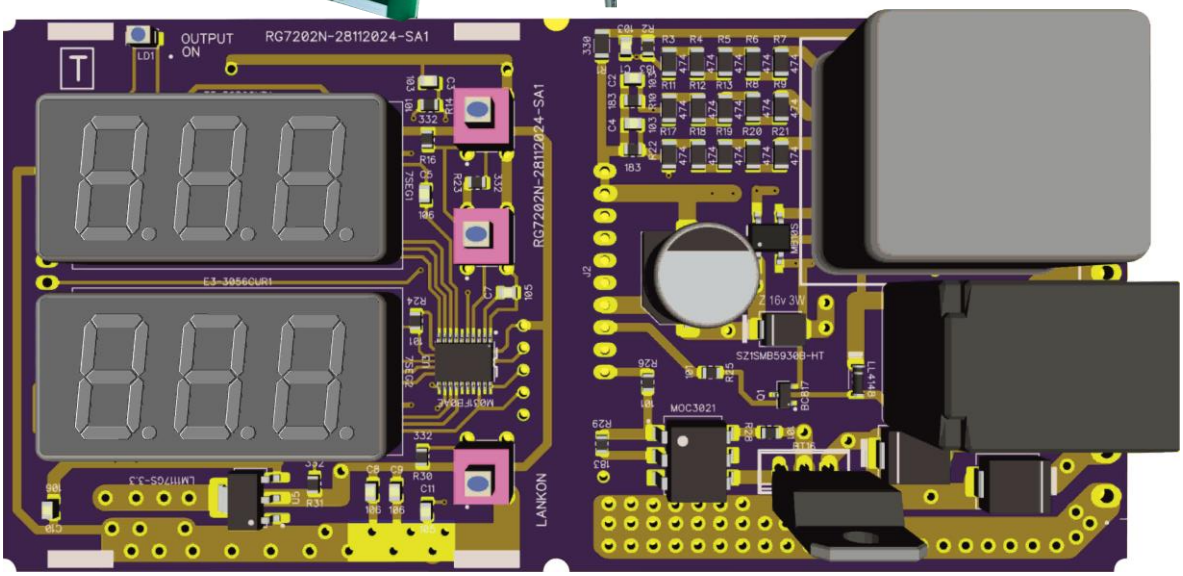
Working Voltage (V Supply) ---------- 105 v…250v
Working frequency automatic ---------- 40…99Hz.
Measuring Range ---------- 1v... 500v (L-N)
Measurement Accuracy ---------- ±%1
Measuring Speed ---------- 50Hz-20 ms 60Hz-16.66 ms
Working Power ---------- < 2 VA
Contact ---------- 250V/5A AC (1250W)
AC Motor Supply ---------- 6… 46 v
Working Temperature ---------- + 70° C — 25 °C
Connection Type, Plug-in Terminal ---------- 10 x 5.08 mm
Mounting ---------- Front panel mounting.
Panel hole diameter ---------- 68 x 68 mm
Dimensions ---------- 72 x 72 x 82 mm
Weight ---------- RG7202N 0,190Kg.

********** **The Circuit Diagram of Voltage Regulator** **********.



Picture 2

Picture 3



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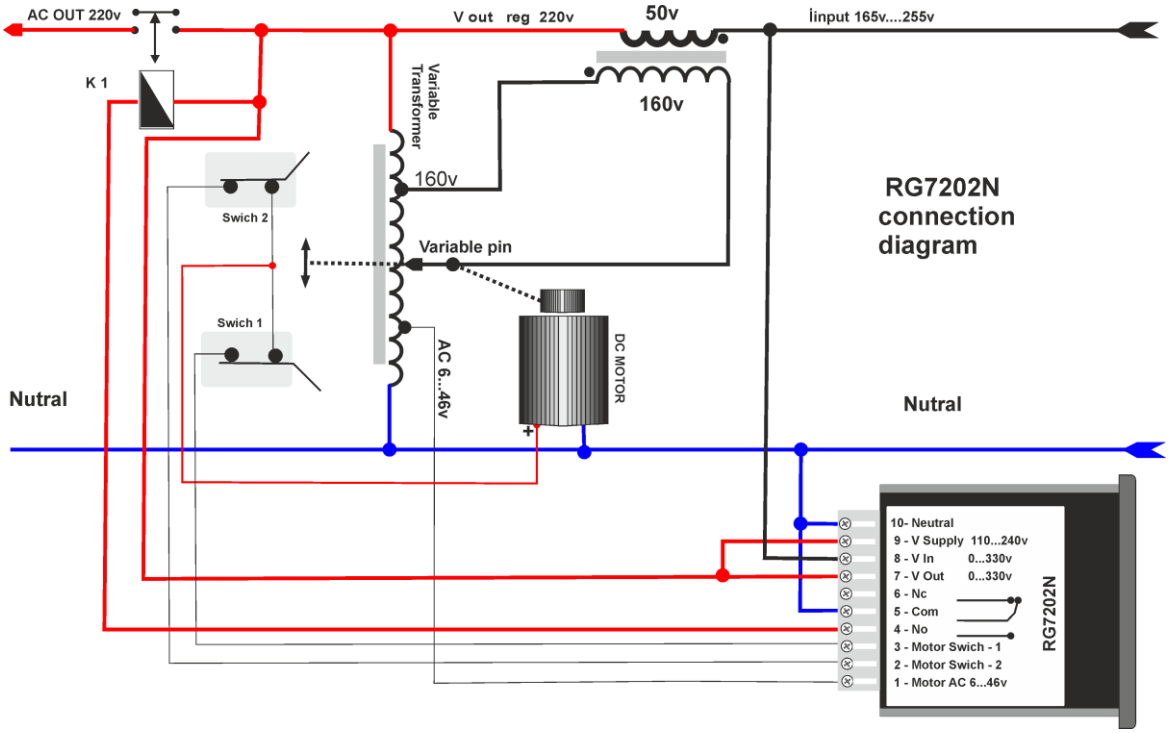
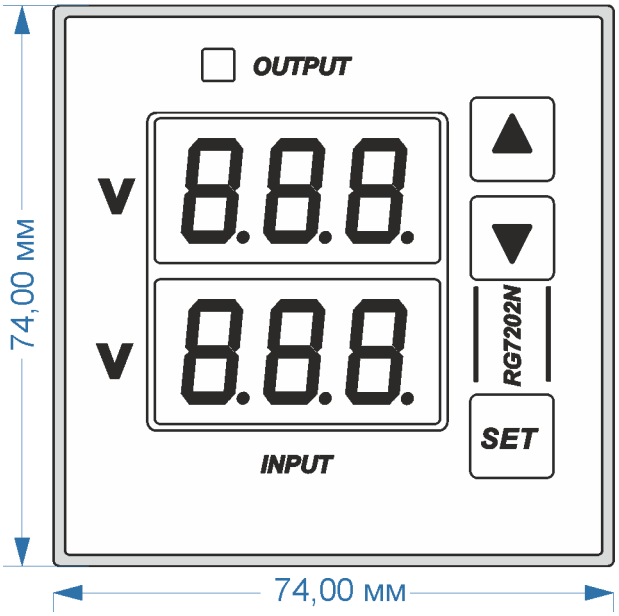
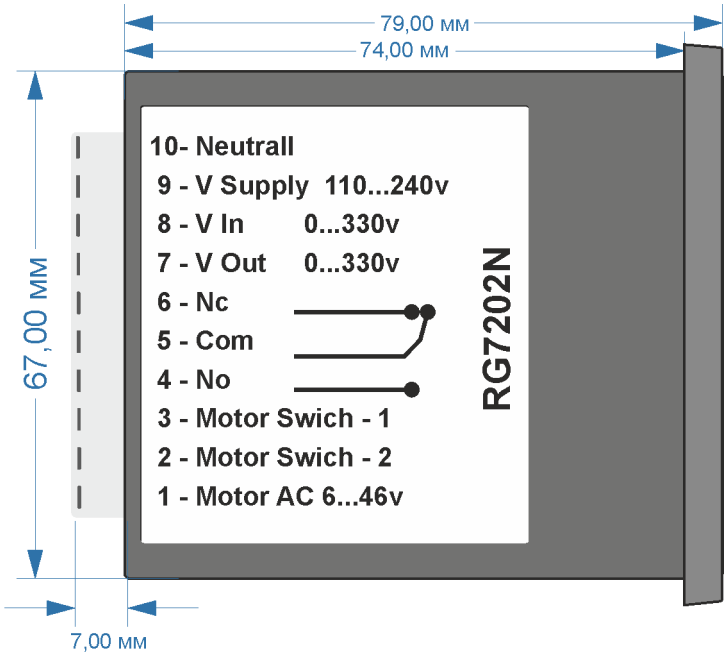


Picture 5





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