

DV - 72 - RR



REGULATOR CONTROLLER

• TRUE RMS

General Informations:

Used for servo motors to keep the output voltage at the desired set value.

- The device measures both the input voltage and the output voltage and keeps the output voltage constant by controlling the servo motor control output.
- Calculates measurements using the True RMS method.
- Interferes with the motor speed.
- Stores in memory the lowest and highest over voltage values of the input voltage. This can be followed by the manufacturer's operating conditions.

BUTTONS :

By pressing the up key you can reach the measurement screen with the input overvoltage value.



By pressing the down key you can see the Input undervoltage value.



INTRODUCTION TO PARAMETERS:

Press the set button for 5 seconds.

Set: In this menu, you can access following parameters with key button: **Set, h-1, h-2, Spd, Pou, Clr, uSt,**

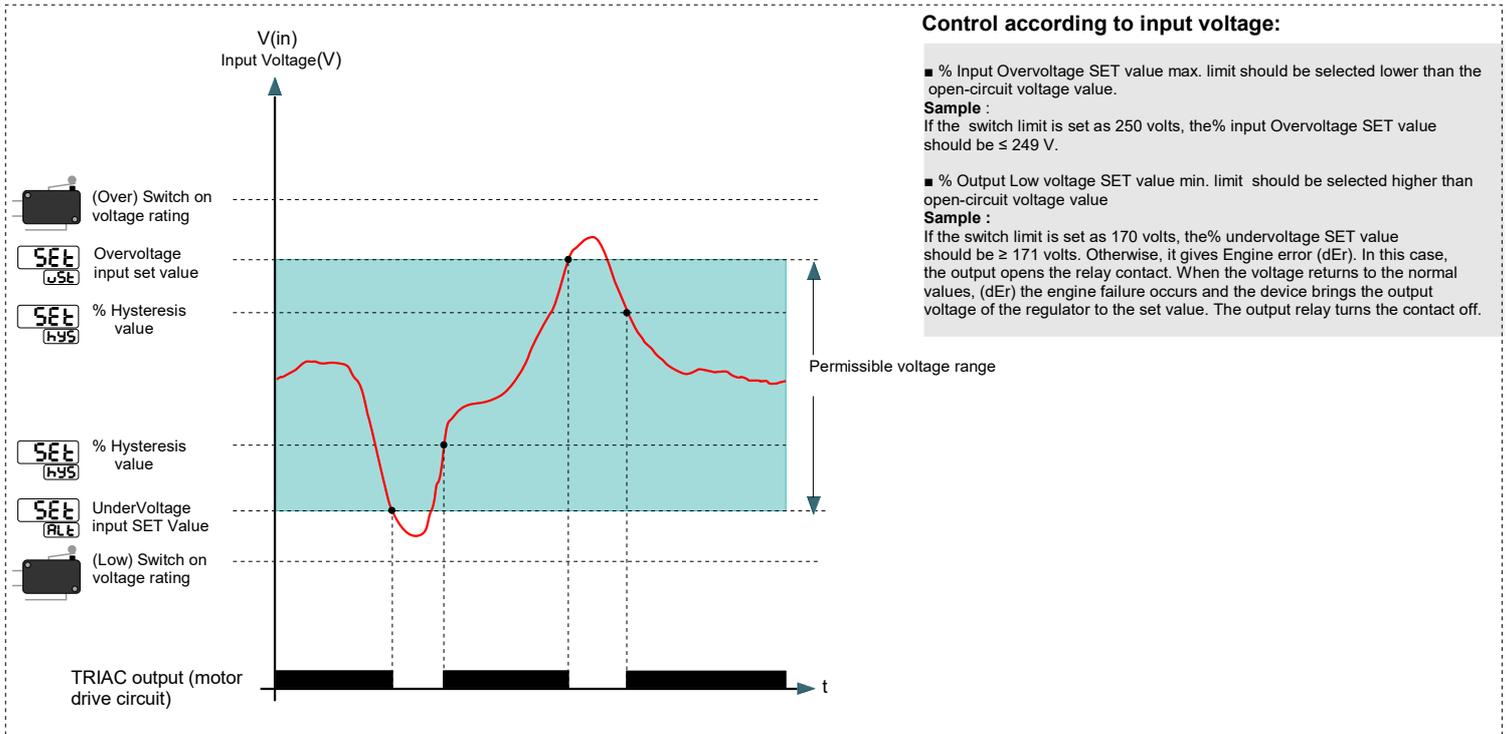
Alt, hYS, dLY-oFF, dLY-on and **qut**. When Set menu is accessed all parameters flash on the screen. To change

parameter value, first press the set key, then change the value with the direction keys. Press set key to store the desired value.

qut : Press Set to return to the measurement screen.

USING THE KEYS:

The Set menu is entered with the set key. The parameters in the menu can be accessed with the arrow keys. Enter the parameters with the Set key and change the value with the arrow keys. With the Set key, the parameter which value has been changed is memorized.



Control according to input voltage:

- % Input Overvoltage SET value max. limit should be selected lower than the open-circuit voltage value.

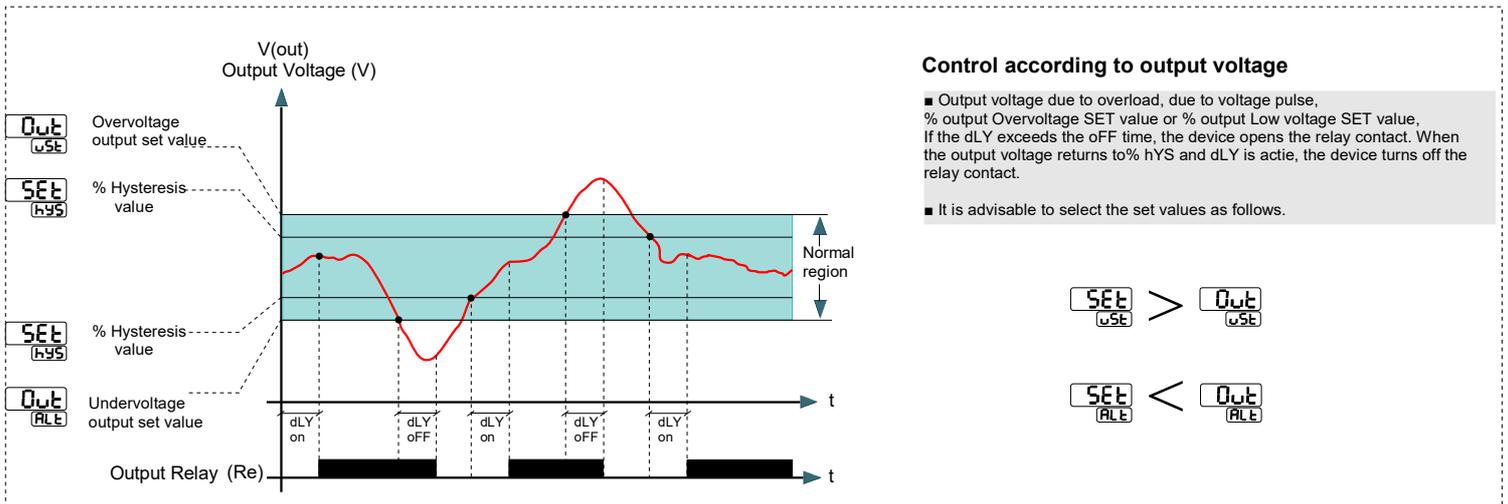
Sample :

If the switch limit is set as 250 volts, the % input Overvoltage SET value should be ≤ 249 V.

- % Output Low voltage SET value min. limit should be selected higher than open-circuit voltage value

Sample :

If the switch limit is set as 170 volts, the % undervoltage SET value should be ≥ 171 volts. Otherwise, it gives Engine error (dEr). In this case, the output opens the relay contact. When the voltage returns to the normal values, (dEr) the engine failure occurs and the device brings the output voltage of the regulator to the set value. The output relay turns the contact off.



Control according to output voltage

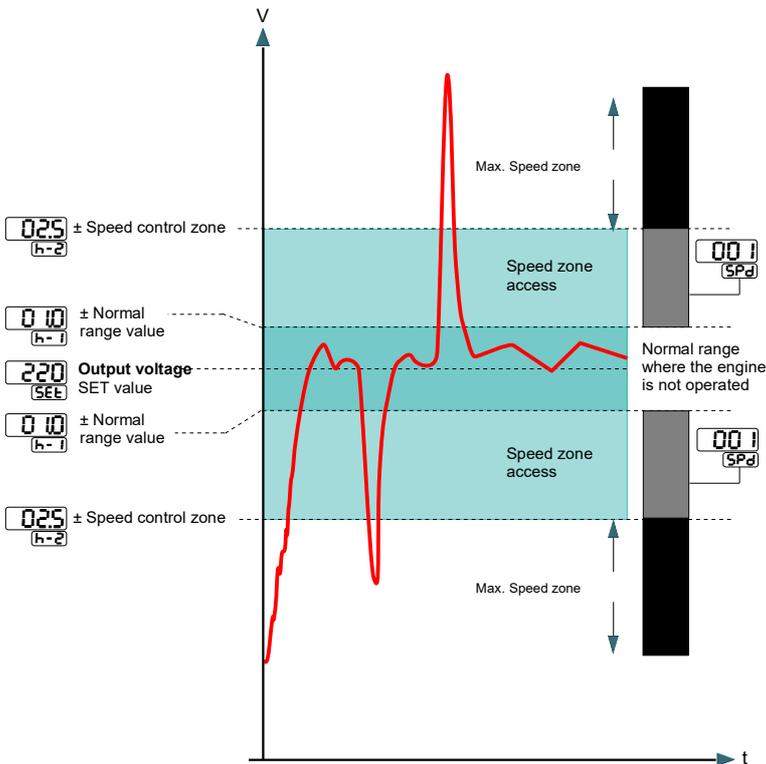
- Output voltage due to overload, due to voltage pulse, % output Overvoltage SET value or % output Low voltage SET value, If the dLY exceeds the oFF time, the device opens the relay contact. When the output voltage returns to % hYS and dLY is active, the device turns off the relay contact.

- It is advisable to select the set values as follows.

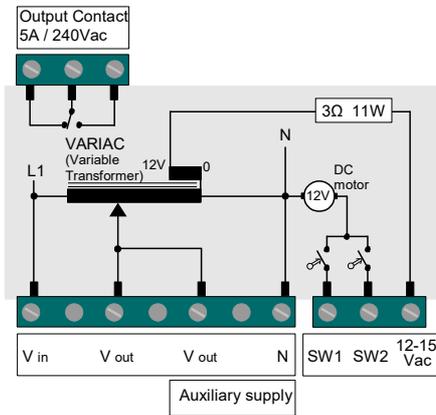
$$\text{SEE}_{\text{USE}} > \text{Ovt}_{\text{USE}}$$

$$\text{SEE}_{\text{ALt}} < \text{Ovt}_{\text{ALt}}$$

Access to Output Voltage:



Connection Scheme :



TECHNICAL DATA:

Rated Voltage (Un)	: 220 VAC
Operating Range	: (0.8 – 1.1)xUn
Frequency	: 50 Hz
Supply Power Consumption	: < 4 VA
Measurement Sensitivity	: 1% \pm digit
Display	: Two lines of 3 Digits LED display
Motor Driver Output	: 12 – 15 Vac
Contact Current	: Max. 5A / 240 Vac
Device Protection Class	: IP20
Connector Protection Class	: IP00
Temperature	: -5°C.....+50°C
Humidity	: 15% 95% (without condensation)
Connection Type	: To front panel tap
Dimensions	: 72x72x80 mm

Press SET button until SET shows up on the screen.

Navigation sequence for setting parameters:

- SET 220 → SET 221 (Output voltage SET value (80 – 400 V))
- h-1 010 → h-1 011 (\pm Normal range value (0,1 – 10 V) defines the non-motorized zone. example :: 0,5
220 + 0,5 = 220,5 V
220 - 0,5 = 219,5 V)
- h-2 025 → h-2 026 (\pm Speed control zone (0,1 – 10 V) Slow motor speed region determined to provide soft transition to setpoint)
- SPd 001 → SPd 002 (Speed (motor speed) SET value (1 – 5) Set motor speed to ensure smooth transition. min speed = 1)
- SET 085 → SET 085 (Engine Power Balance (30 – 140) It helps to find the ideal power usage For non-impact operation)
- CLR → CLR → SET → Exit
- SET 012 → SET 012 (% Over voltage SET value (0,05 -0,50) 220 x (1+0,12) = 246 V)
- SET 026 → SET 026 (% Under voltage SET value (0,05 -0,50) 220 x (1-0,26) = 163 V)
- Out 012 → SET 012 (%Output Overvoltage SET value (0,05 -0,50) 220 x (1+0,12) = 246 V)
- Out 026 → SET 026 (%Output Under voltage SET value (0,05 -0,50) 220 x (1-0,26) = 163 V)
- SET 001 → SET 001 (% Hysteresis value for Opening- Closing Overvoltage; 246 x (1-0,01)=244V Undervoltage; 163 x (1-0,01)=161V)
- dLY 030 → SET 031 (Opening Time SET value (0,01 – 60 sec) This time counts for opening when excessive or lower limit is reached.)
- dLY 050 → SET 051 (Closing Time SET value (0,01 – 60 sec) At the end of this time the output is released when the voltage returns to the normal value.)
- dEr 001 → SET 001 (Motor or Device Connection Fault 000 : Fault Control Off 001 : Fault Control On)
- 9ut → SET → EXIT

Warning !!!

- The message Er1 or Er2 on the screen means that the device has got a failure
- Clean the device using dry dustcloth after de-energizing the device