# DDMP – RDP – PFP Configuration Tool

## Operating Manual:

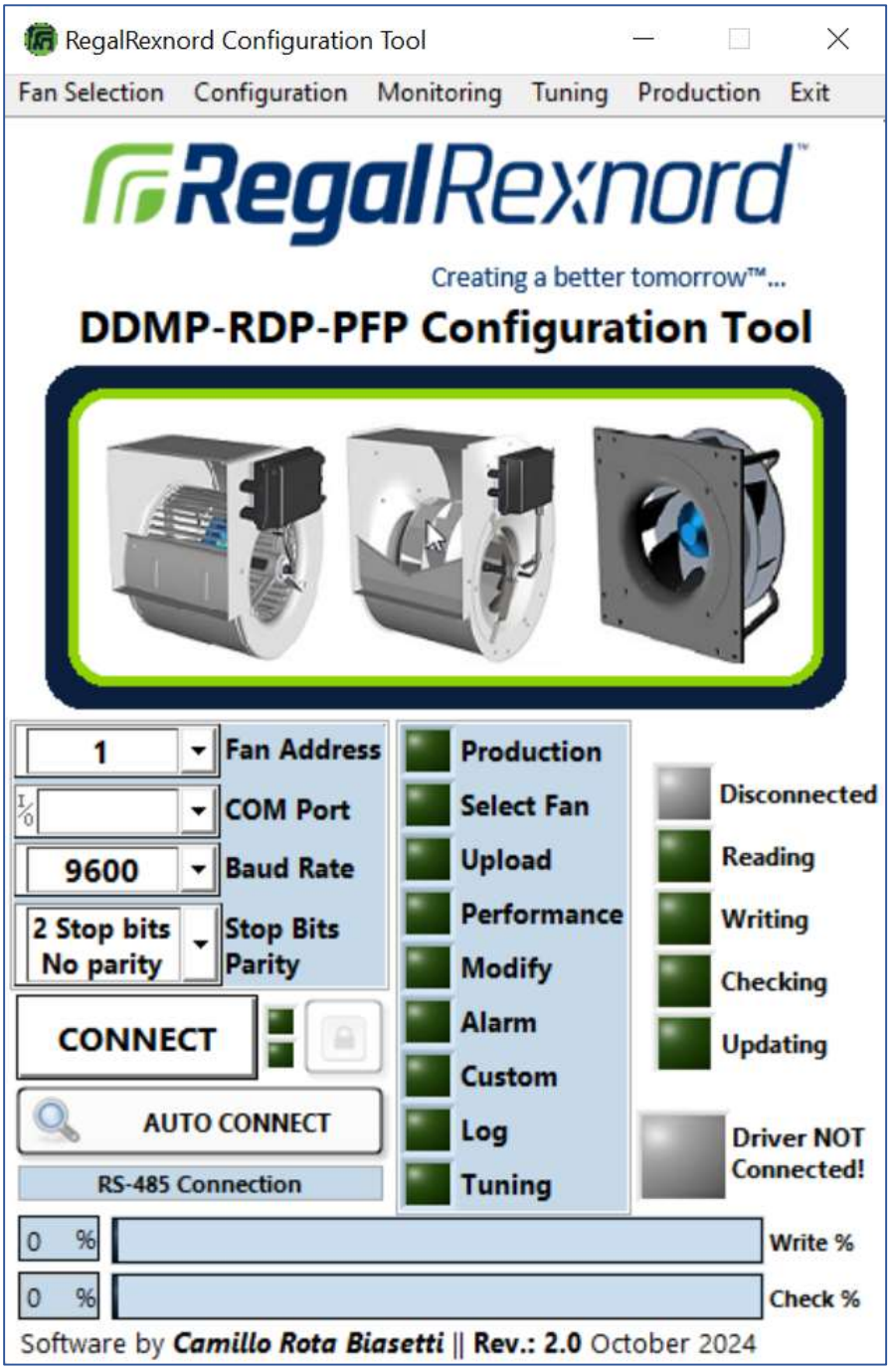


***Figure 1: Main window***

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# 1. System requirements:

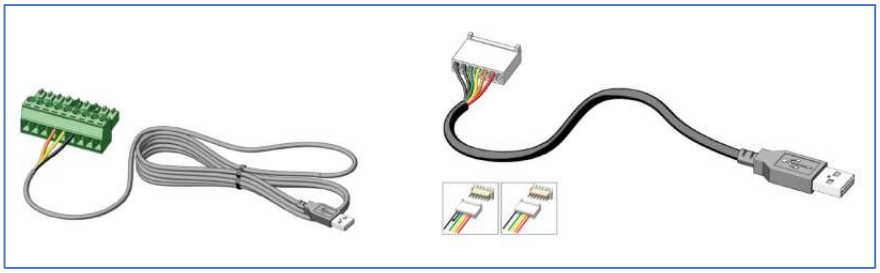
The RegalRexnord Fan Configurator Rev. 2.0 is a Labview software, and it runs only on a Windows operating system from version 10 onwards with a hard disk available space of 500MB.
If the Labview runtime is already present, the installer will copy only the software requiring just 50MB of hard disk space.

The communication protocol is Modbus RTU and an USB to 485 converter is necessary to connect the software to the fan.

After downloading and decompressing the zip file, double click on the setup.exe file and the program will be installed in the main root of the system C:\RegalRexnord Fan Configurator\Save

# 2. Connections:

- Connect the fan to the power supply (230V/1ph – 400V/3ph);
- Connect the Modbus to RS-485 converter cable to the port A, B and ground of the driver:



**Note:** Please refer to the fan **product manual** for all the detailed instructions.

***Figure 2: Cable connections***

- Select the connecting parameters if known:

**Connecting Param.:**
- **Fan Address**
- **COM Port**
- **Baud Rate**
- **Stop Bits parity**

**Then click Connect**

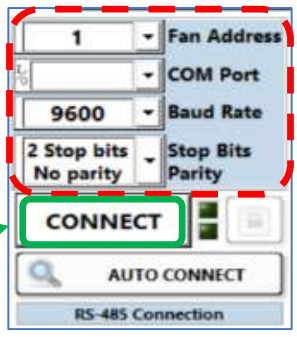



***Figure 3:Connecting param. selection***

- If connecting parameters are unknown: use the AUTO CONNECT function:

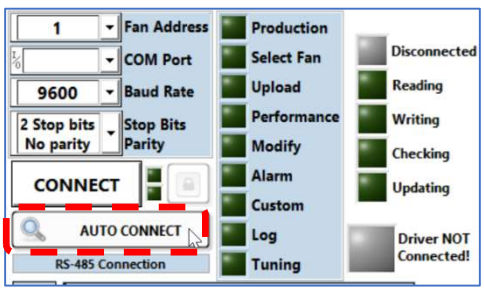



***Figure 4: Auto connect***

## In the **auto-connect** function you could either:

### A) Select the COM port if known

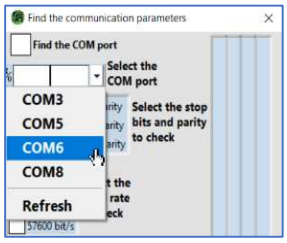



*Figure 5: Select the COM port*

Or

### B) Use the Find the COM port option, then unplug and plug the USB cable:

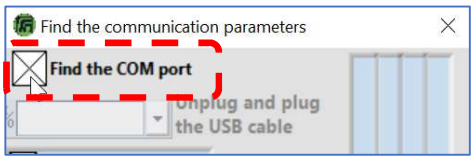



*Figure 6: Find the COM port option*

## Then click on Start:

The system will search throughout the COM Ports, Baud rate, Stop bits, fan address until it establishes the connection.

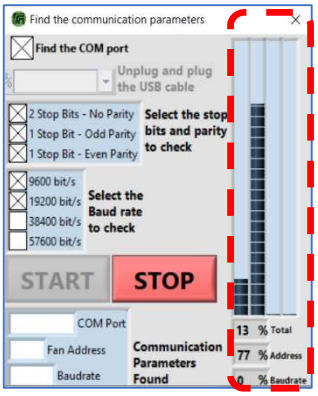



*Figure 7: search for connection*

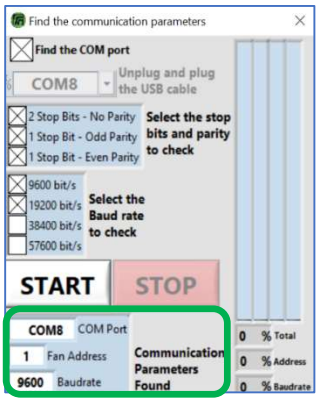



*Figure 8: Connecting parameters found*

## Then, close the Auto connection window (Click on X) to return to the main window:

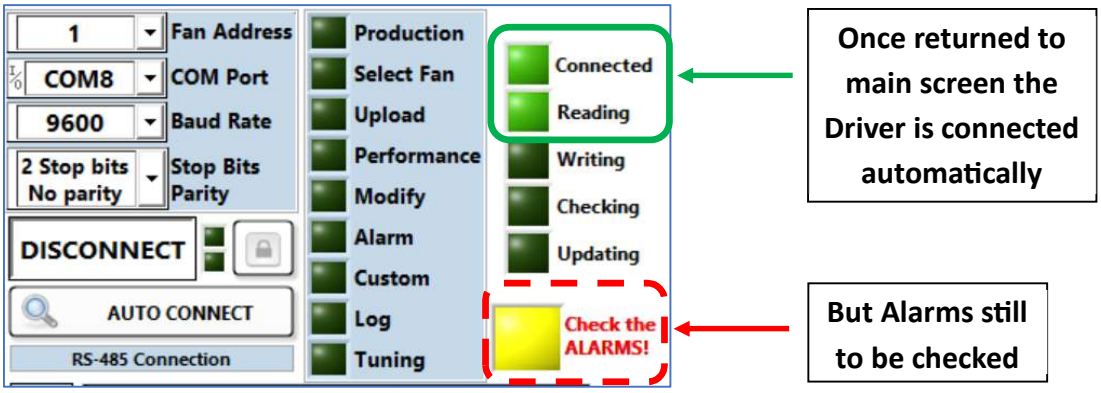



*Figure 9: Connection established*

## Check the reason of the alarm warning. Go to Monitoring -> Alarms:

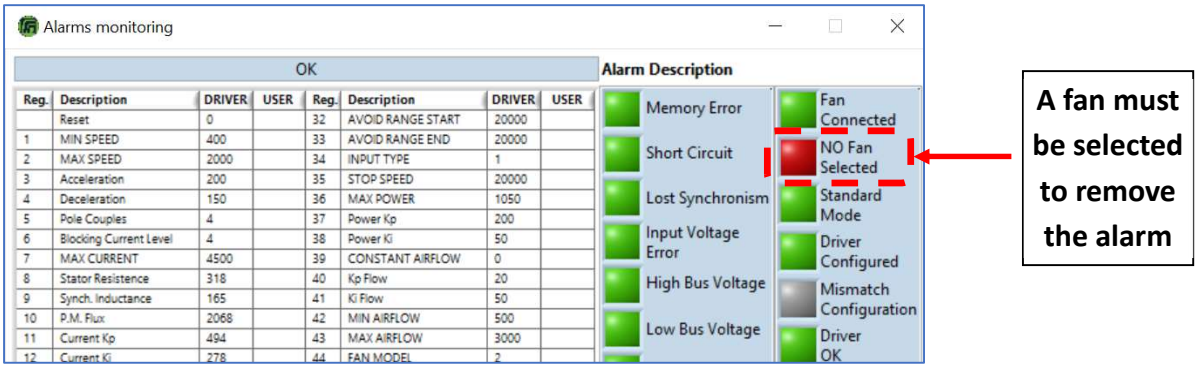
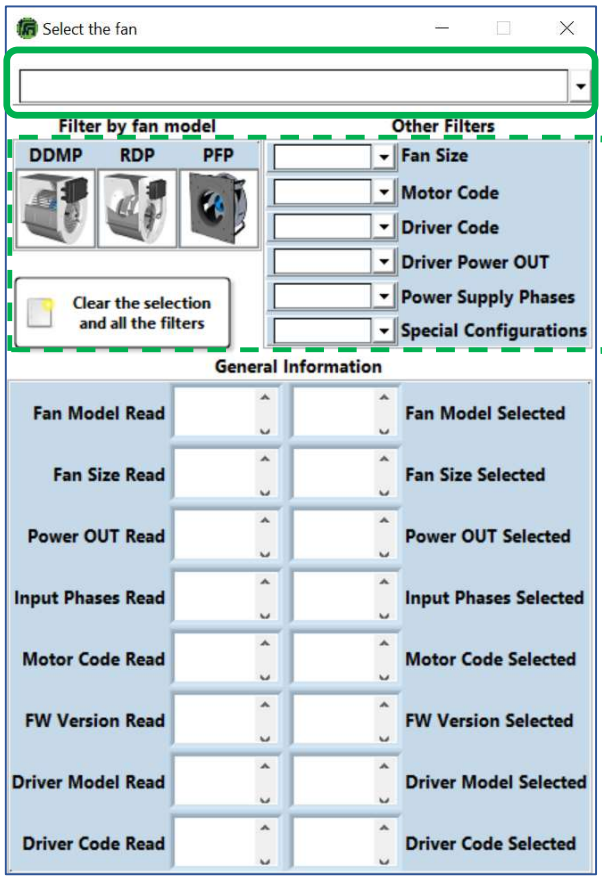



*Figure 10: List of alarms*

# 3. Fan selection:

- Read fan nameplate (Model, motor, driver, power)
- Click on “Fan Selection” on top left tab of the main screen:


At this stage **All** the possible fan selections are available among these three models: DDMP – RDP – PFP.




Use the optional filters to speed up fan selection:

Note: Below filters are not mandatory, some of those could be selected and some other could be left blank. However the more filter you use the easiest will be to select the correct fan from the general drop down menu.

*Figure 11: Select the fan window*

- Filter examples:


*Figure 12: by fan model*

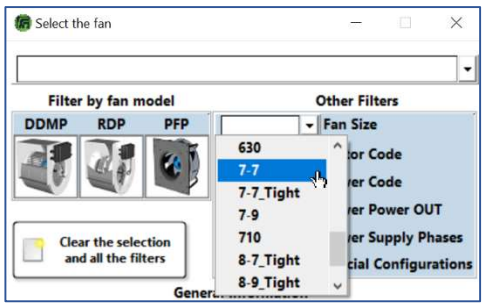



*Figure 13: by fan size*

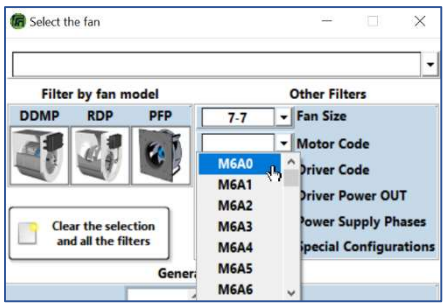



*Figure 14: by motor code*

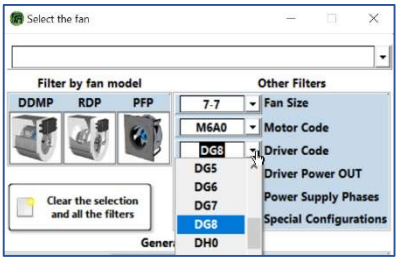



*Figure 15: by Driver code*

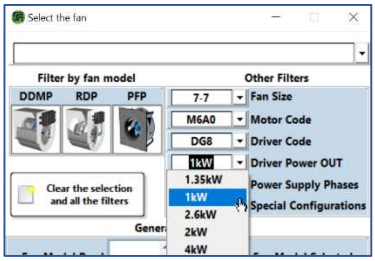



*Figure 16: by Driver output Power*

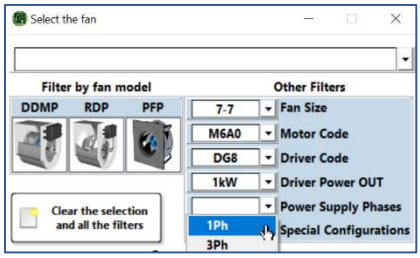



*Figure 17: by Power supply phases*

- Finally, select the proper fan from the drop-down menu where only filtered fans are selectable:

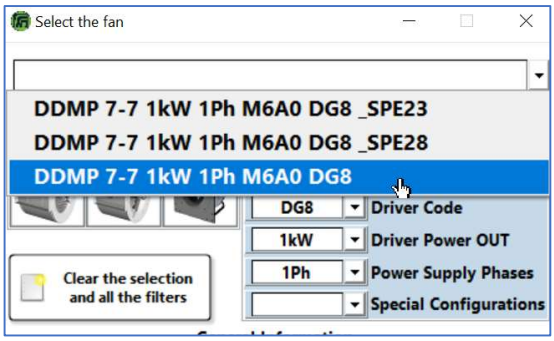



*Figure 18: Fan selection from drop-down menu*

- Once fan is selected, main window will show "Default OK" (no alarms) and fan selection window will show *matching values in read and selected general info*:

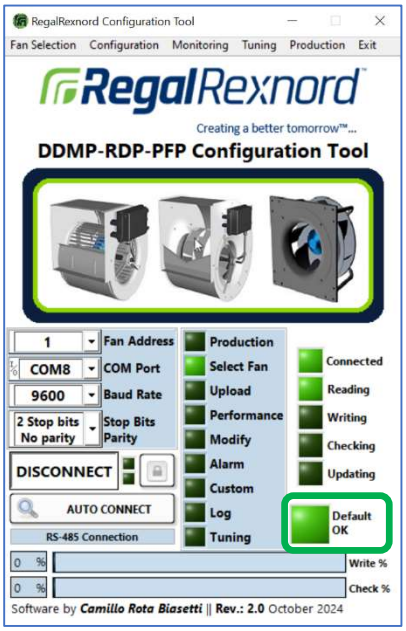



*Figure 19: Fan correclty selected*

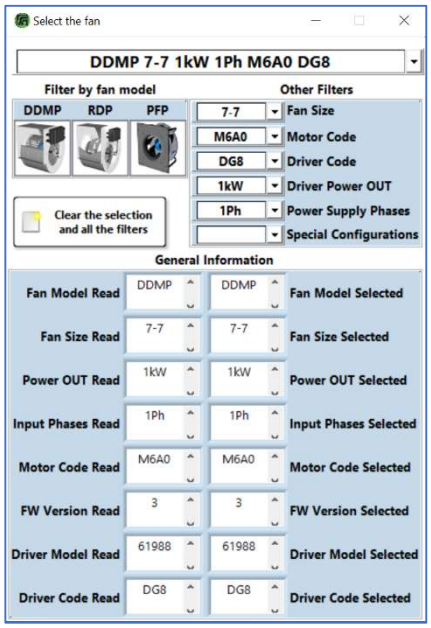



*Figure 20: Read and selected values matching*

- If any alarm is reported, go to the alarm section to find the mismatching value. For example the configuration selected is mismatching the info read:

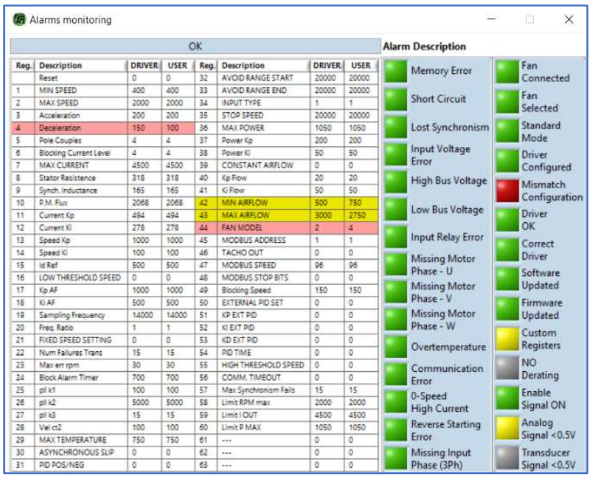
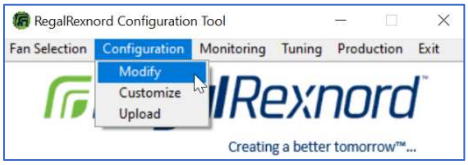



*Figure 21: Mismatch configuration in alarm section*

# 4. Modify:

- Fan configuration could be modified if needed;
  Click on Configuration -> Modify tab on main window:




Here a list of all the parameters free to be modified:

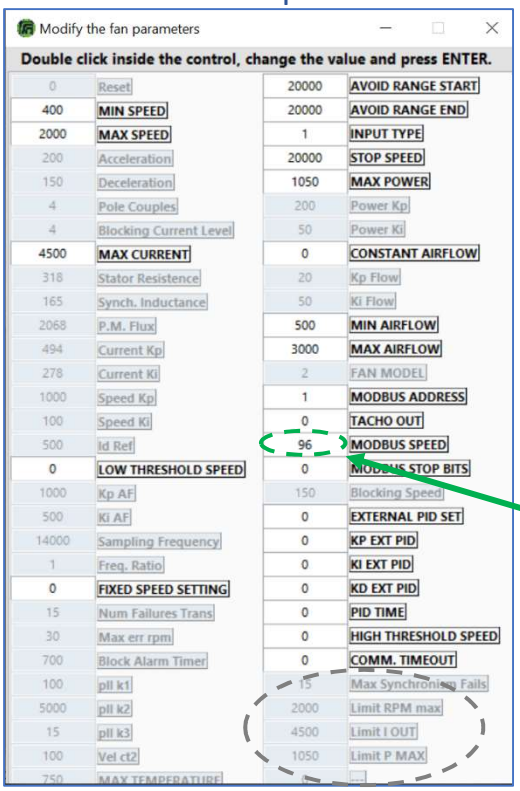



*Figure 22: Parameters free to be modified*

Note: This list is showing just the unlocked parameters that could be modified.
Not all parameters are free to accept a modification due to safety restrictions, please refer to your Regal Rexnord contact application engineer for allowed modifications.

To modify the unlocked parameters, it's enough to double click on the value cell, change the value with the desired one and click enter.
This automatically overwrite the driver.

Locked values are disabled and greyed out

For any modification, all the modified register will be shown in yellow:

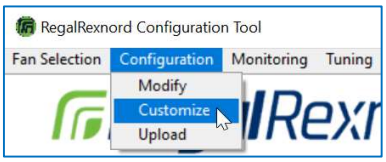
Modified value


Custom Registers alarm

*Figure 23: Alarms monitoring custom register*

**Please refer to the product manual for the min-max allowed values.**

# 5. Customize:




Click on Configuration tab -> Customize:

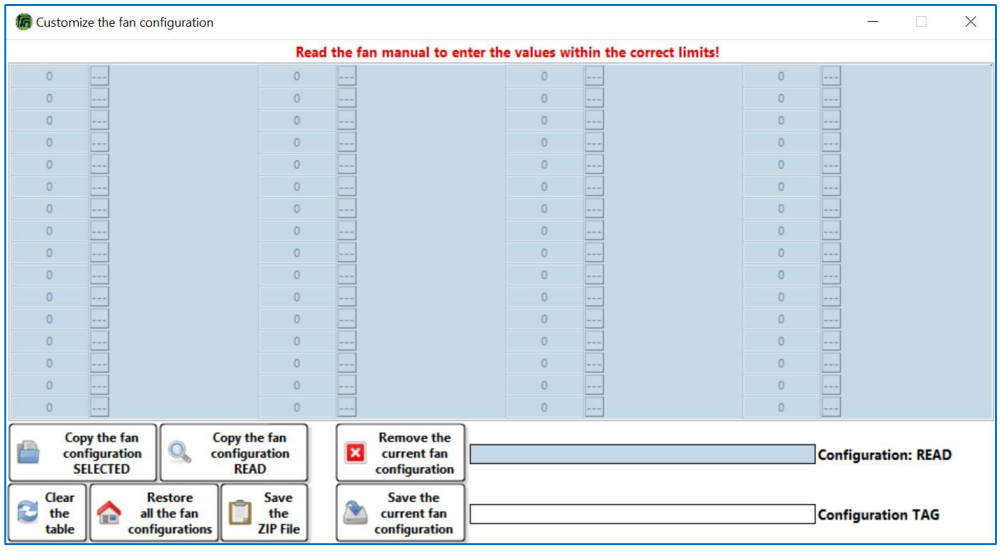



***Figure24: Customize empty window***

In this section is possible to:

- Copy the fan configuration SELECTED in fan selection;
- Copy the fan configuration READ from driver;
- Modify the unlocked param. and save the current configuration;
- Remove the current configuration.

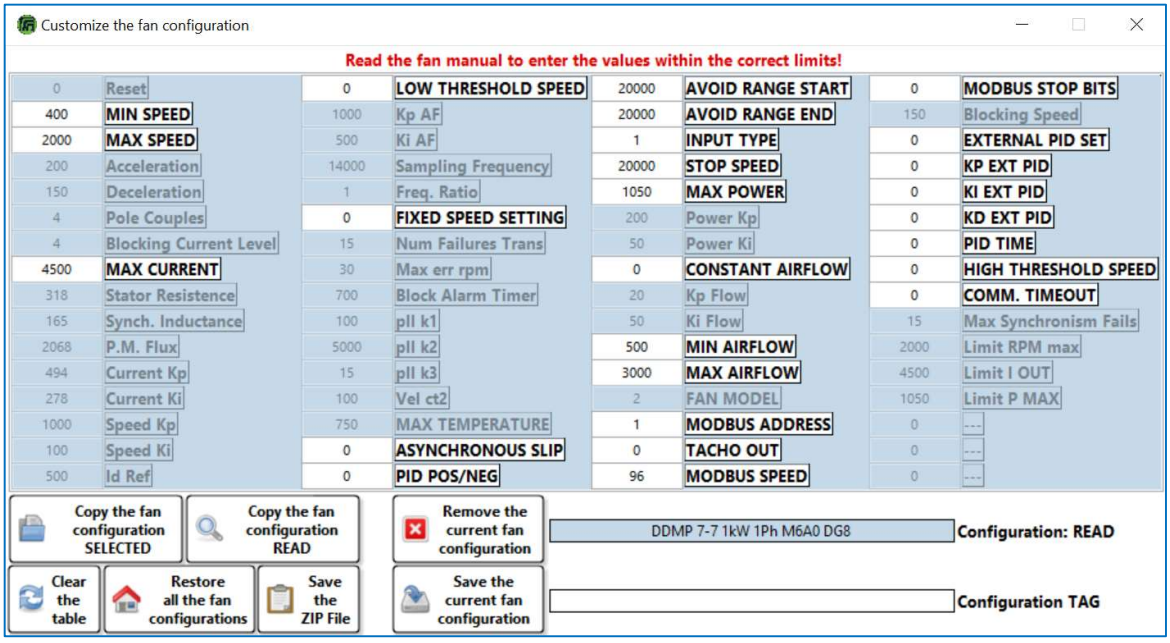



***Figure 25: Copy the fan configuration READ***

Note: When fan configuration selected and read coincide, i.e. without any modification done, no alarm will be reported in the alarm section.

If instead a modification on the fan parameters is done, this will not be automatically saved on the driver (differently from the Modify section), but the modified configuration has to be saved, choosing a Configuration TAG:

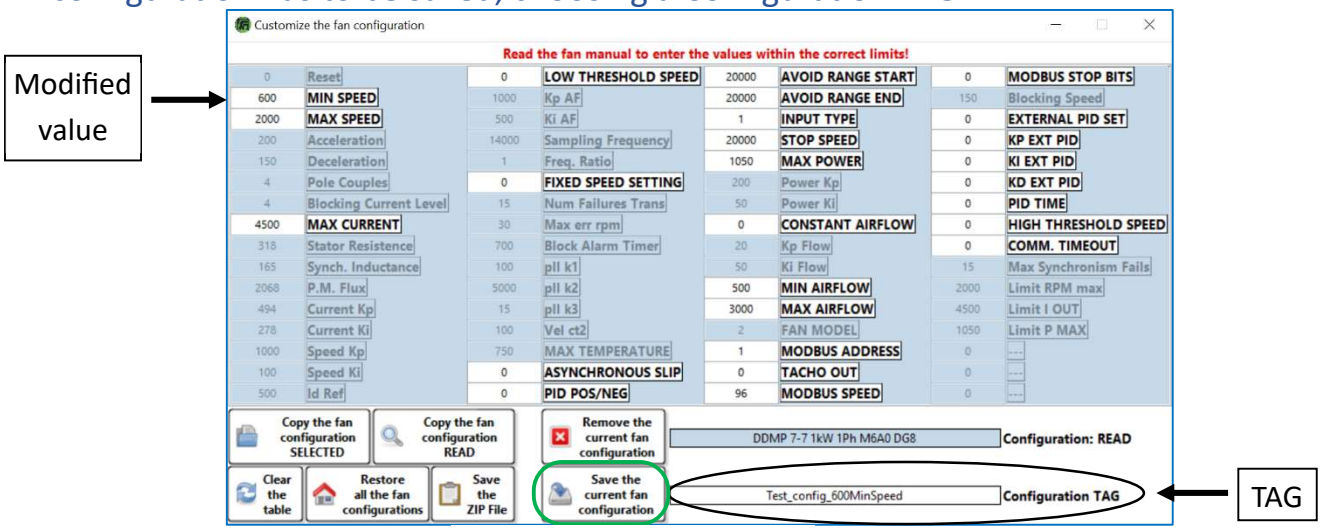



*Figure 26: Saving new configuration*

Once the configuration is saved, it will be included in the list of configurations available in fan selection. The modification will be reported in custom registers alarm, in yellow.

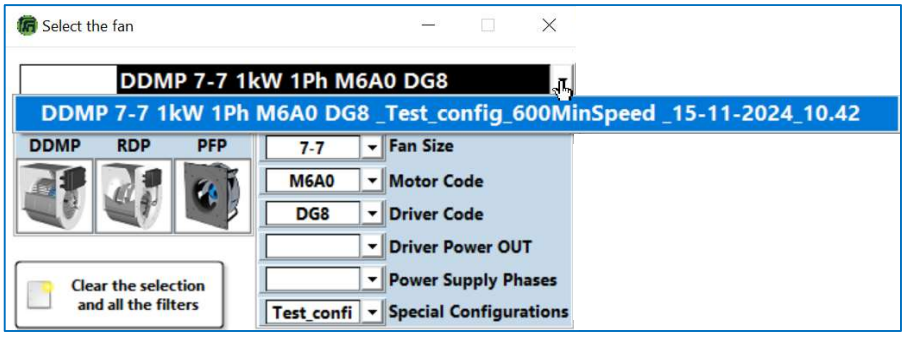



*Figure 27: New configuration available in fan selection*

Finally, click on copy the fan config. SELECTED to select the new fan configuration:

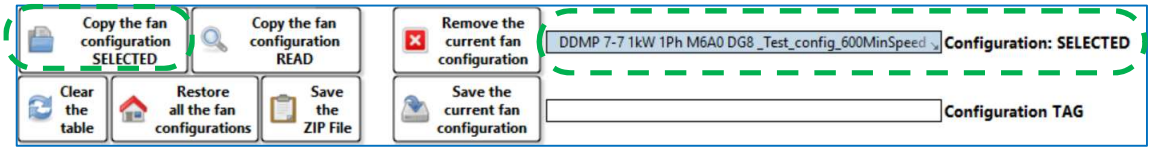
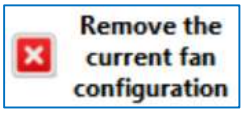
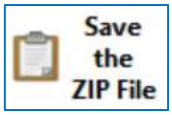


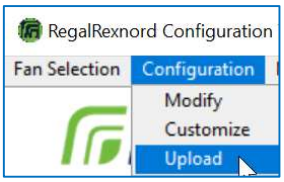

*Figure 28: New configuration selected*

- To remove the current fan configuration click on the remove button: 


- To save the entire folder containing all available configuration in zip format click on Save the zip file button: 


  A zip folder will be saved in C:\RegalRexnord Fan Configurator Rev. 2.0\Backup

## 6. Upload:




The upload function allows the user to upload an entire configuration over the configuration read from the driver.
Select the configuration from the main dropdown menu in Fan selection then open the upload section:

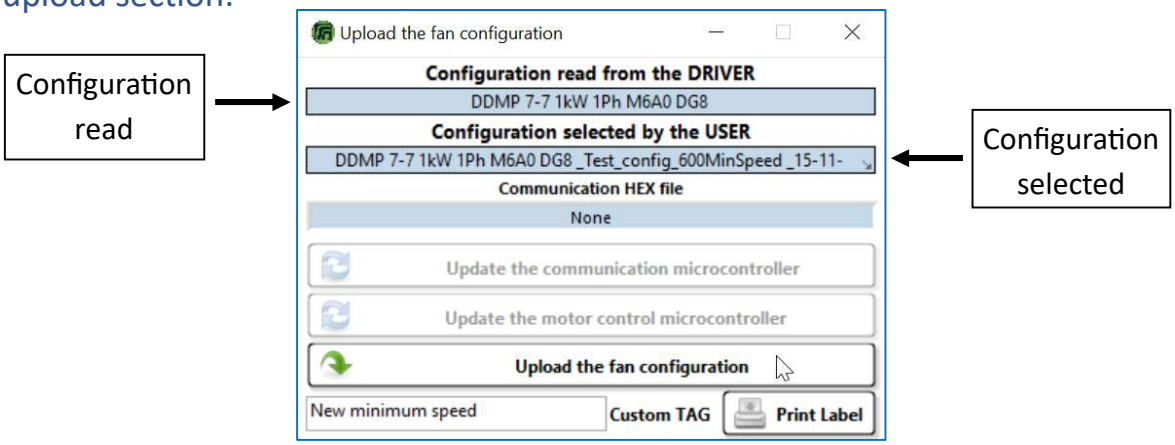
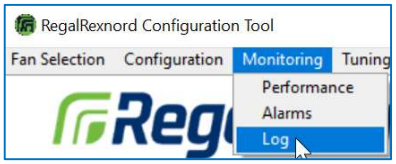



***Figure 29: Upload the fan configuration***

Click on Print Label button to print out a label reporting the main featured of the uploaded configuration, option to include a custom TAG.

Note: Once the upload is done, there will be No alarms on registers reported.

## 7. LOG:




The LOG section gives information on fans performances.
It is possible to track the LOG manually, by clicking on ADD Record or automatically with the Auto LOG function by providing a time range in seconds:

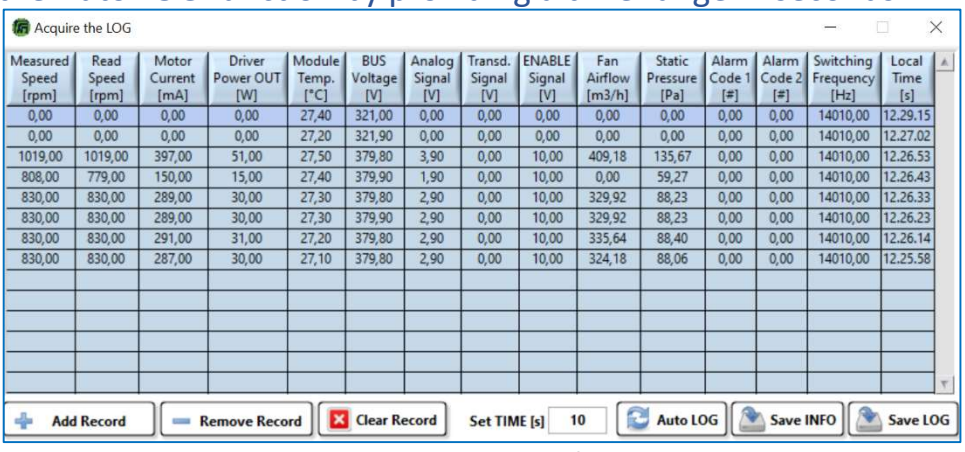
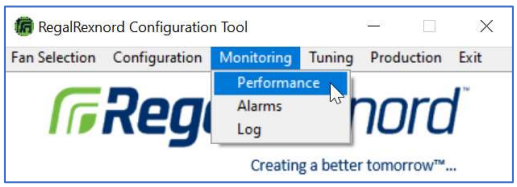



***Figure 30: acquire the LOG***

Click on Save INFO or Save LOG to save them in text format, in this location:
C:\RegalRexnord Fan Configurator Rev. 2.0\Save

# 8. Performance:




- Monitoring -> Performance tab on main window:
  Here all fan performances displayed:

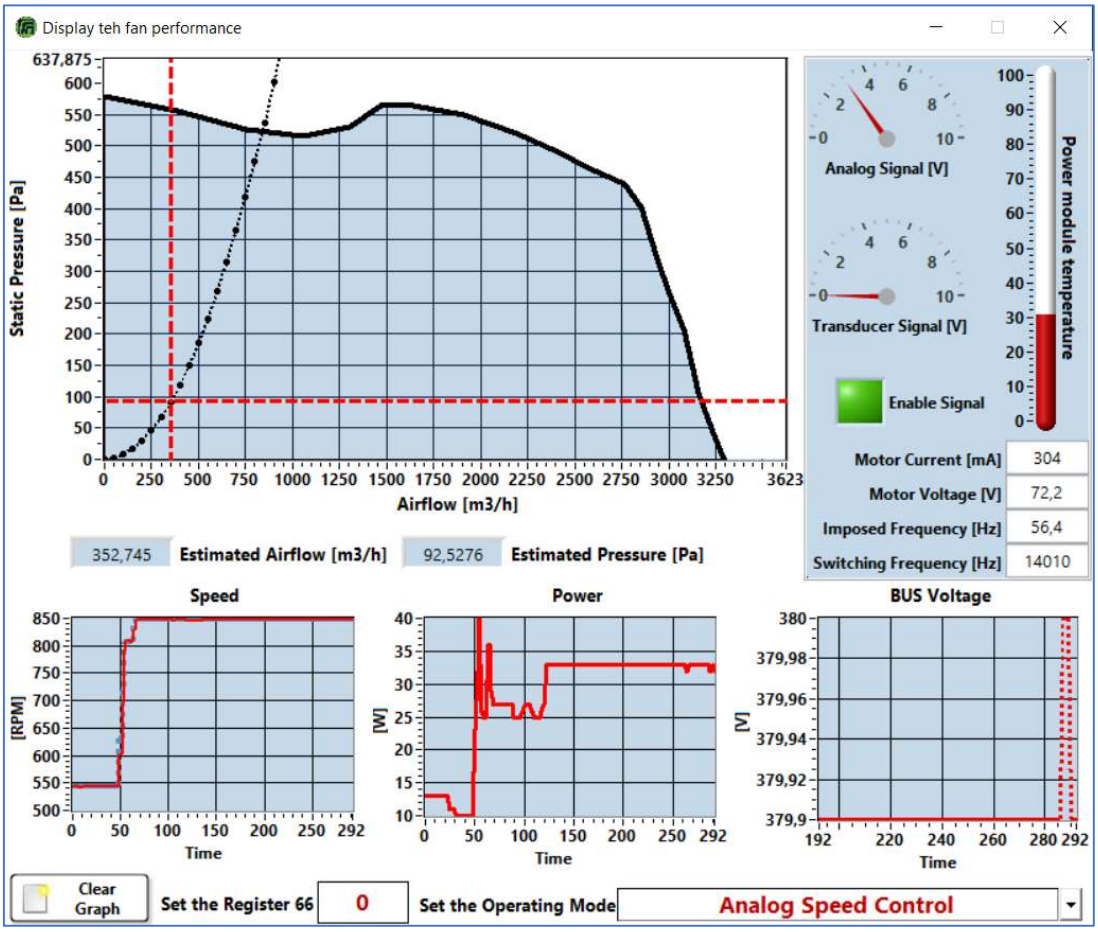
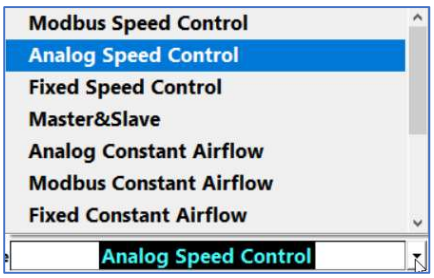



***Figure 31: Fan performances***

Note: the above fan performances are obtained in analog speed control. Flow rate in m3/h and static pressure in Pa are estimated values.
There are no modbus registres with these values.

Here is a list of possible control mode:




**Please refer to the product manual for the control modes.**