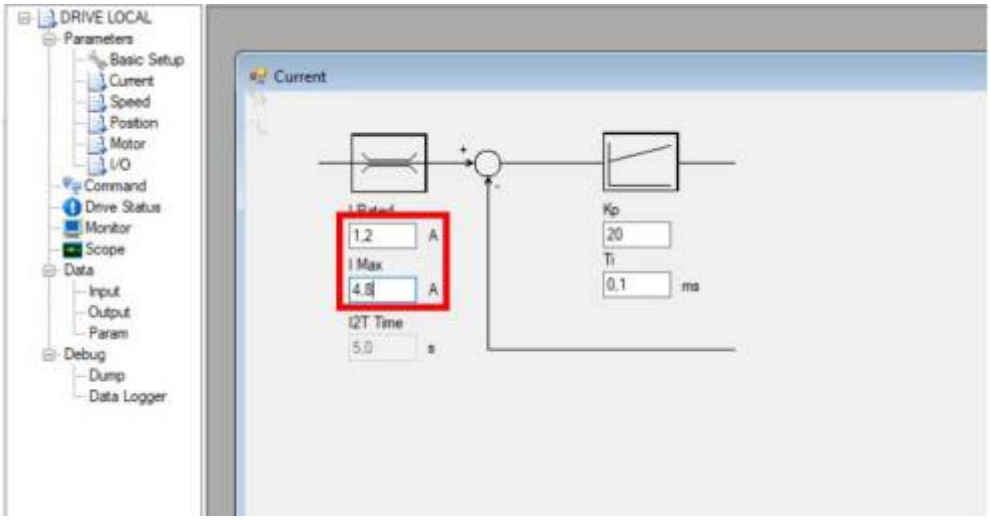
General Motor Configuration

Download TKSED Software here:
https://www.nilab.at/download/tksed-software-pc-tool/?wpdmdl=2126&refresh=637351b08fa4b1668501936

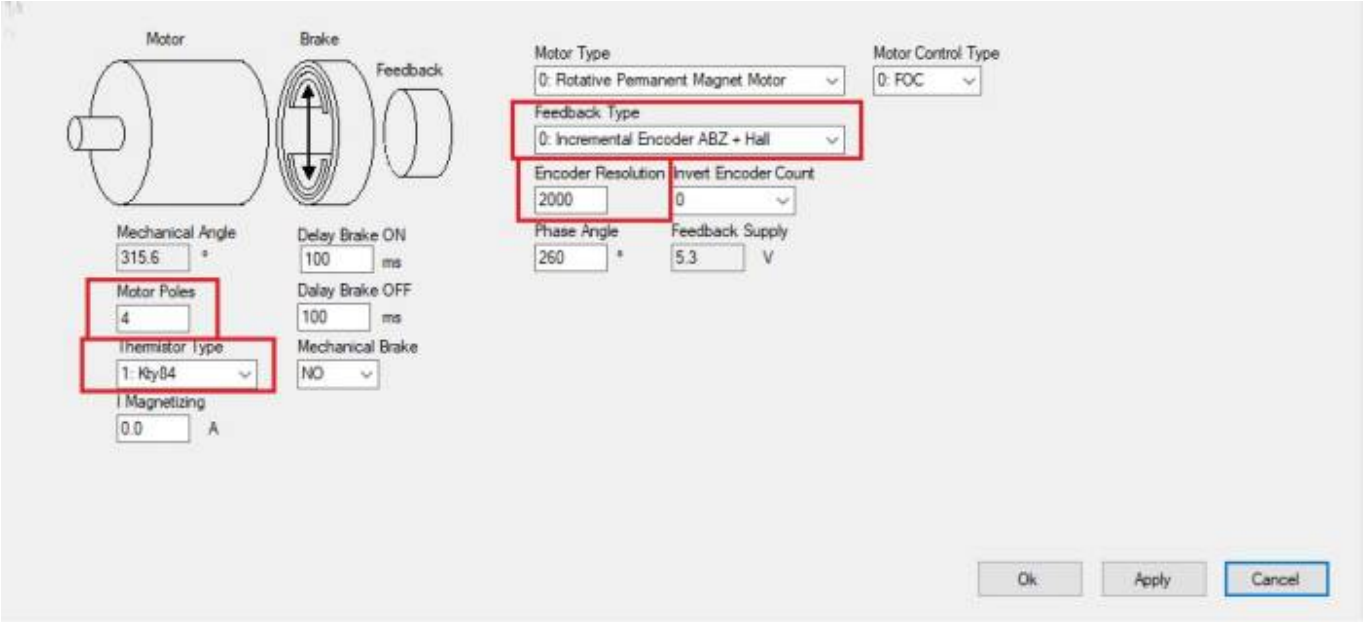
STEP 1

Considering the motor datasheet, set the correct value for I rated (nominal current) and the peak values in the current window. For example: 1.2 A rated and 4.8 A peak.



STEP 2

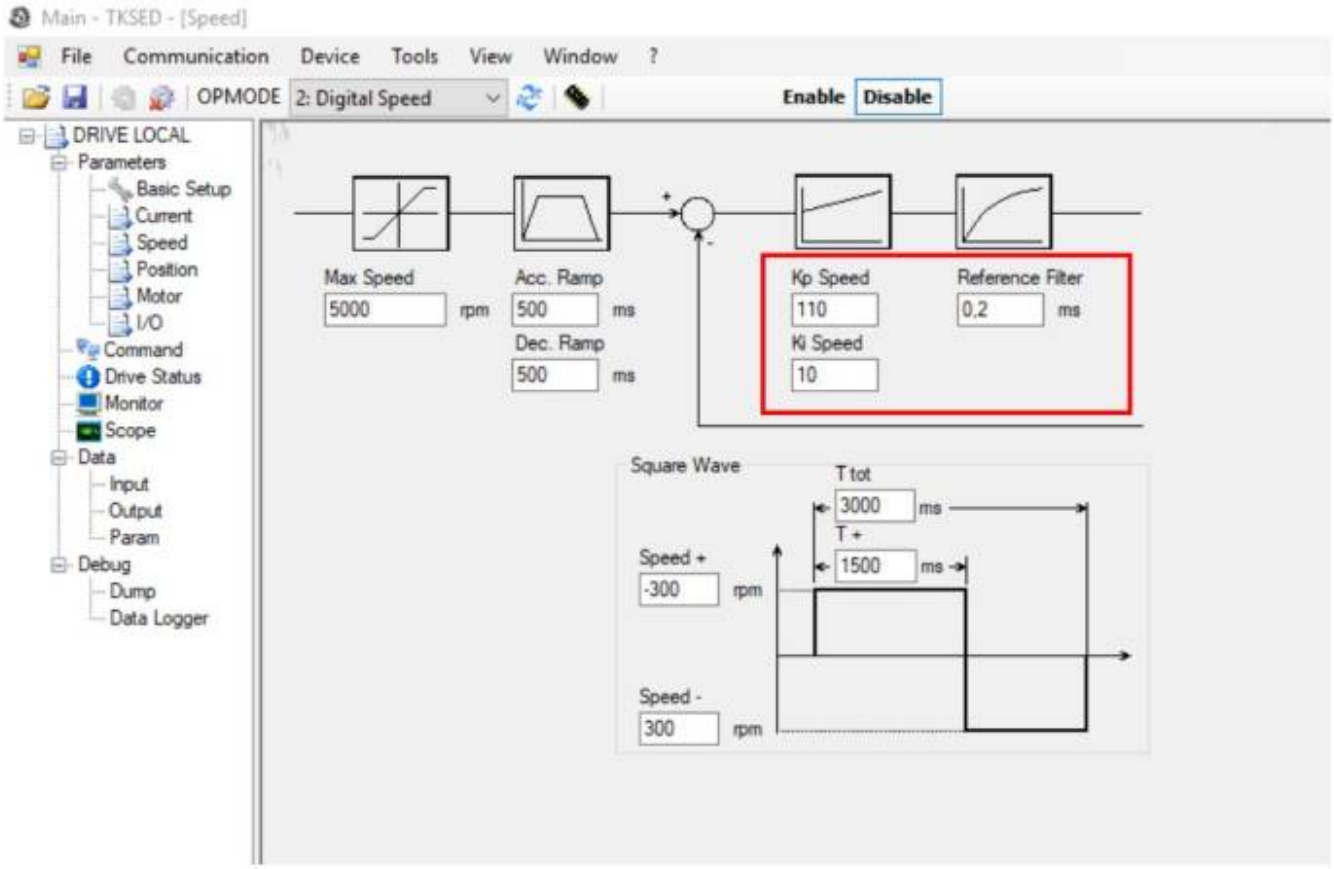
In the motor window, specify the motor type, encoder resolution, number of poles, thermistor, and feedback type. For example: 2000 counts per revolution, incremental + Hall feedback, 4-pole motor.



STEP 3

Set the gain, the integral, and the reference filter value in the Speed window. For example: Kp = 110, Ki = 10, and 0.2 ms speed-loop filter.

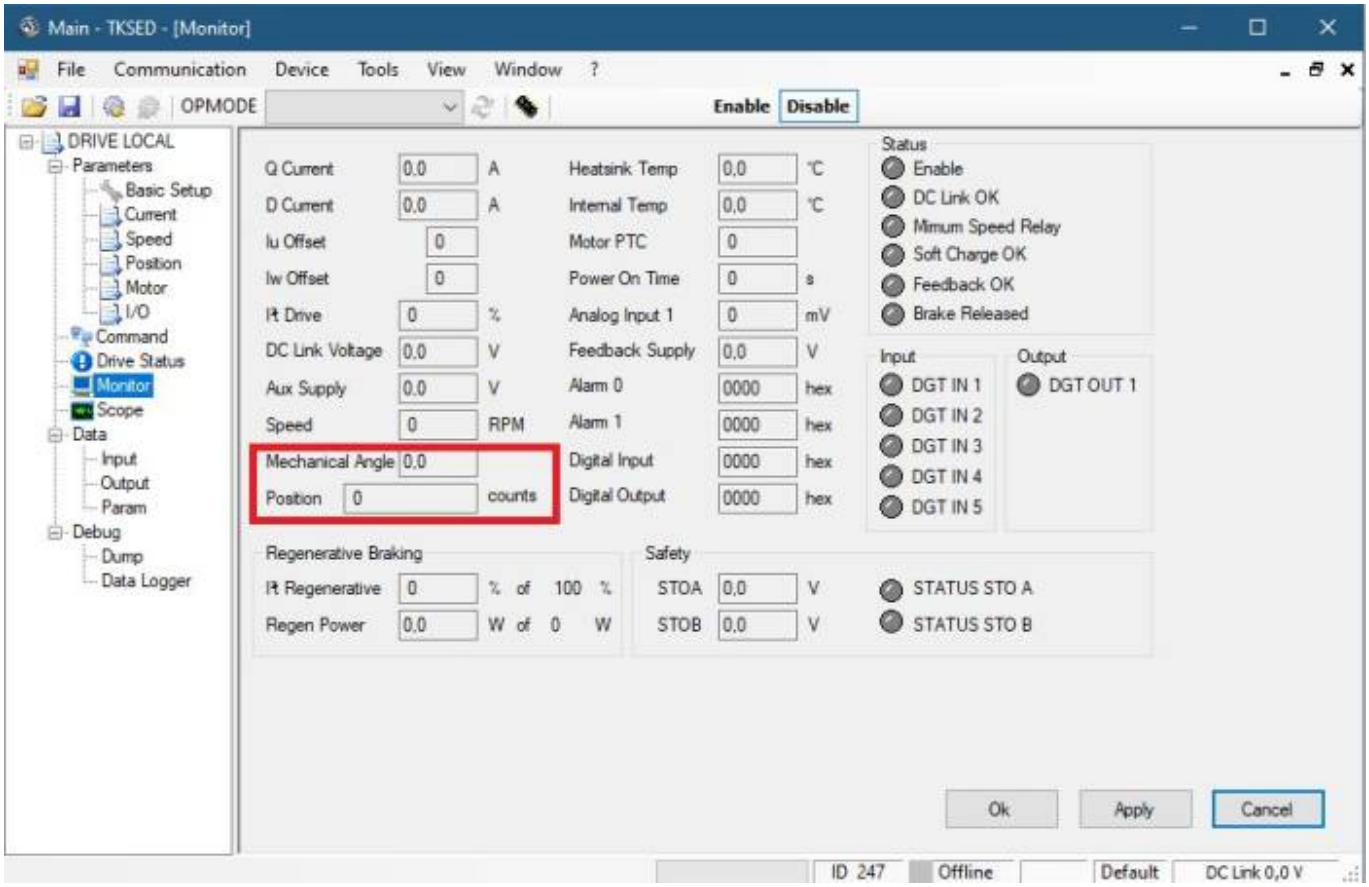
A general method to find the right values: increase the Kp speed gain until vibration occurs, then divide that value by 2. The Ki speed value is typically set to 1/4 of the Kp gain. Then set the reference filter to reduce the noise.



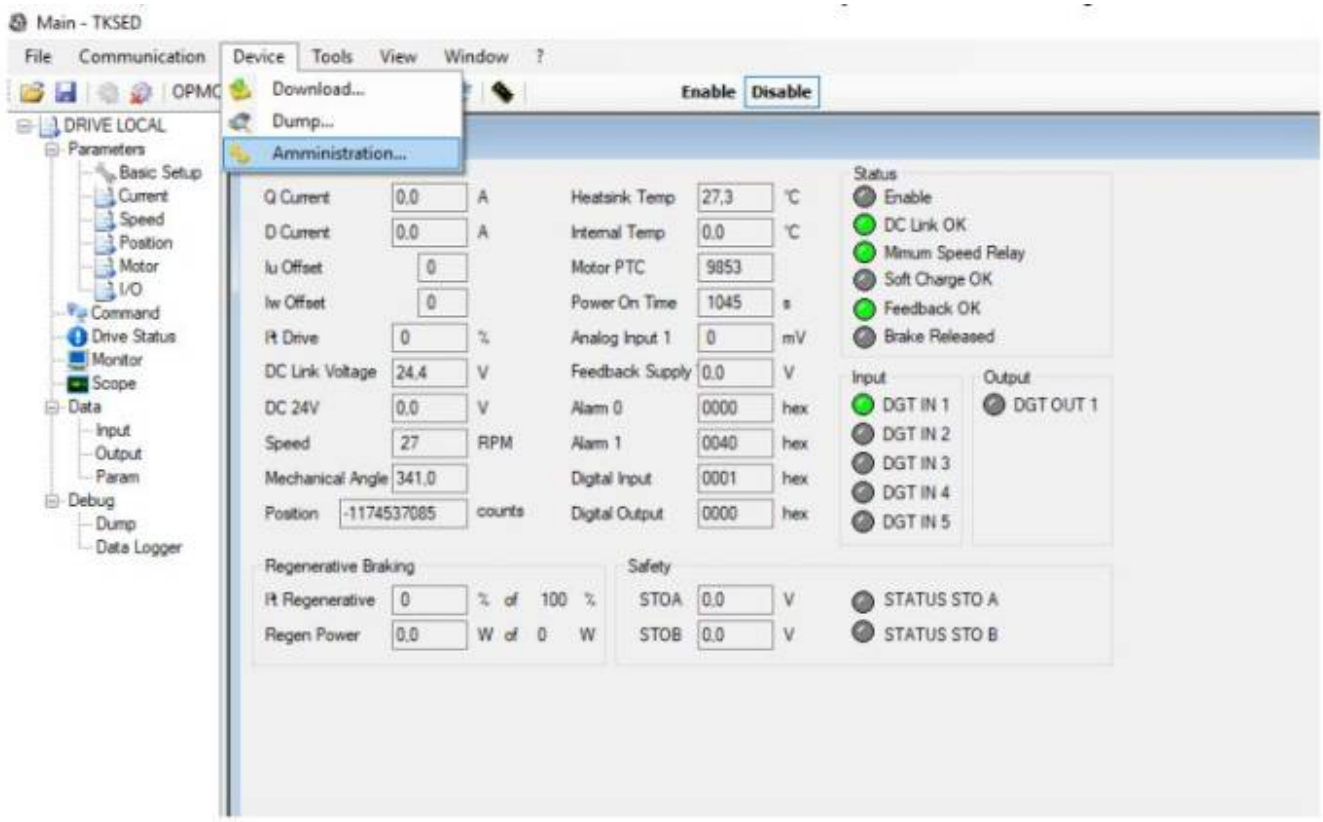
STEP 4

Check that the encoder is working correctly using the mechanical angle information. When you rotate the motor shaft clockwise, the mechanical angle must increase from 0 to 360 degrees. Consequently, the position counts must increase.

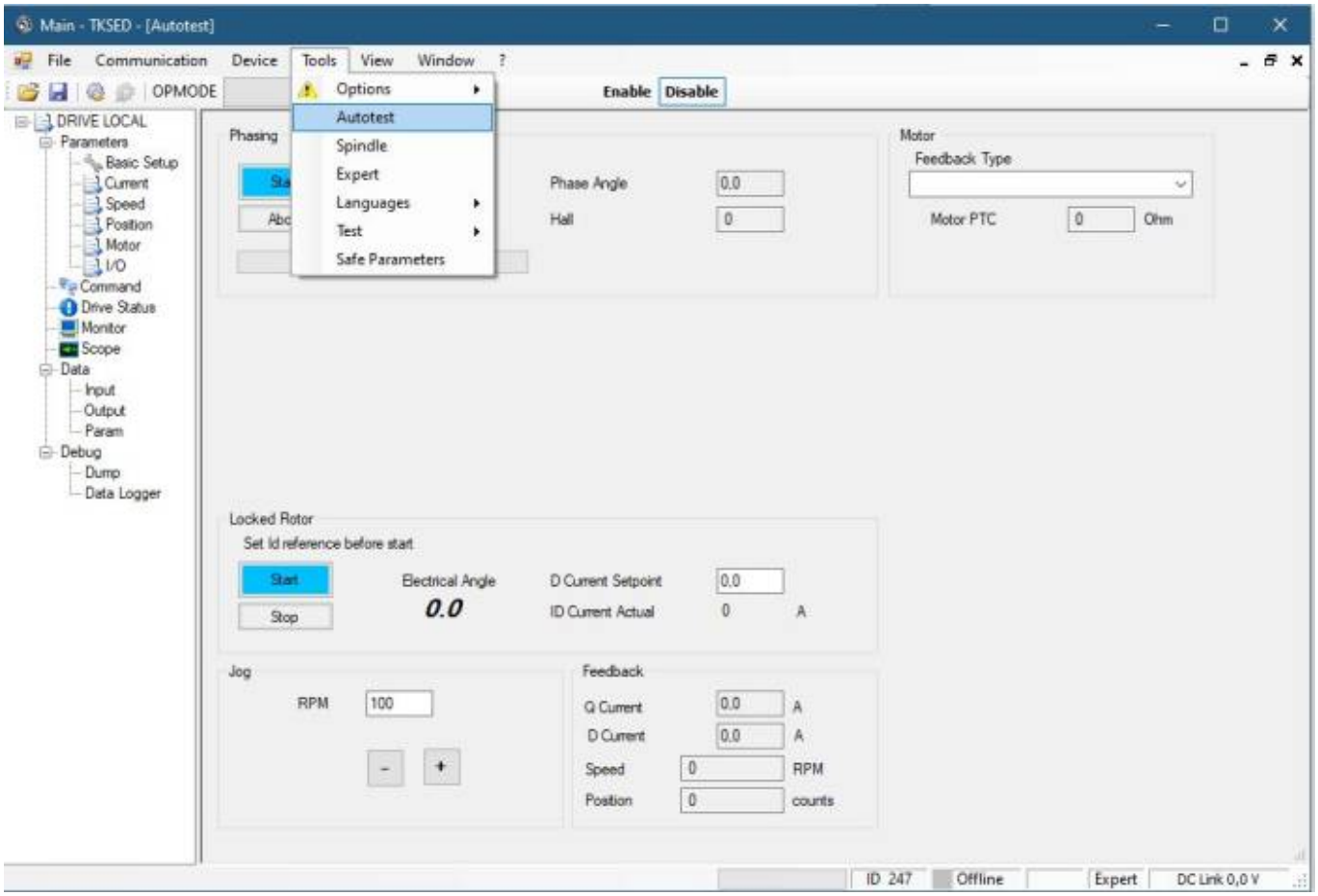
Please consider that position counts are a normalized value (16 bits) from 0 to 65535.



Enter Administration mode using Device → Administration menu with the password **BYstorm**.

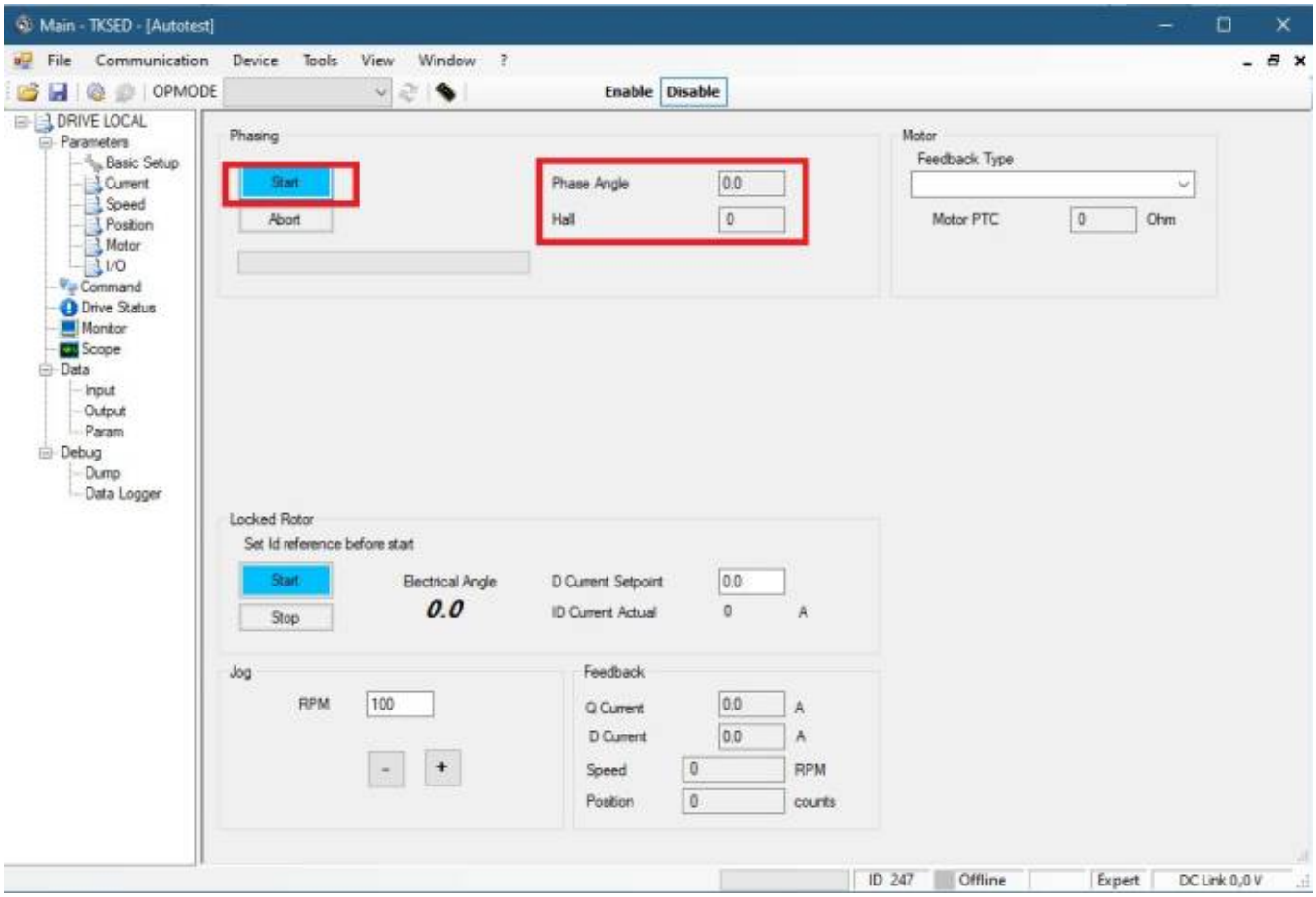


Then select Tools → Autotest to open the setup window for the feedback.



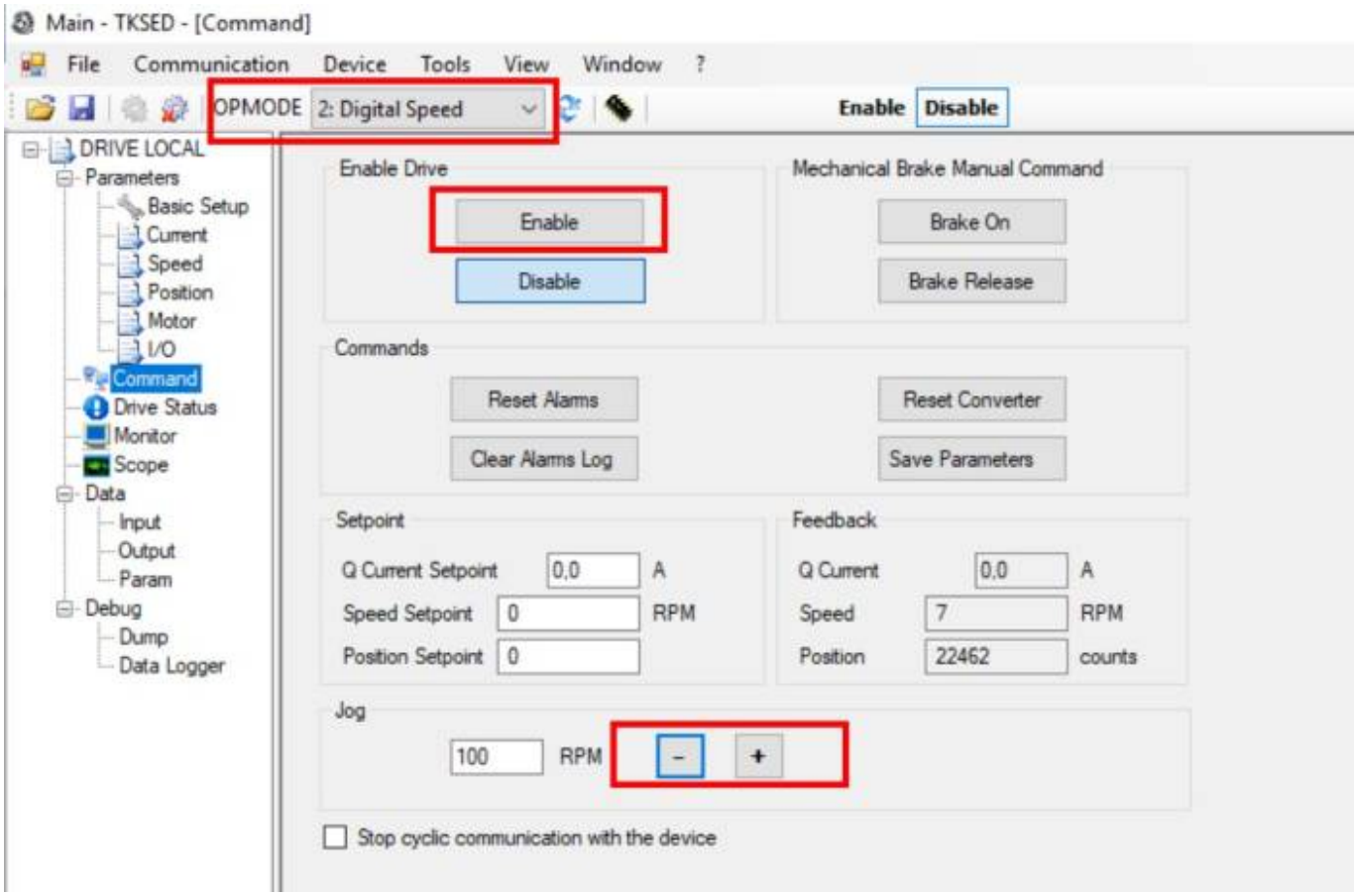
STEP 5

Press the Start button to begin the procedure; the Hall number must increment during the phasing calculation. If the Hall numbers do not increase, there are faulty connections, or the motor phases are not connected in the correct sequence. At the end of the procedure the phase angle is calculated. Then write the phase value in the phase angle field in the motor window.



STEP 6

Use the command window to test the correct operation of the motor: set OPMODE to Digital speed, press the enable button, and use the + and − buttons to move the motor. You can also specify a speed in RPM.



STEP 7

Remember to store all the data in the drive's EEPROM using the toolbar button, before switching off the 24VDC.



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