

STM23C/24C Quick Setup Guide

Requirements

To begin, make sure you have the following equipment:

- A small flat blade screwdriver for tightening the power connector (included).
- A personal computer running Microsoft Windows XP, Vista, 7/8/10/11.
- *ST Configurator*™ software (available at www.applied-motion.com).
- CANopen programming cable (to host) (included)
- CANopen daisy-chain cable (motor to motor)
- RS-232 cable for connecting to a PC so you can configure the settings on your motor using *ST Configurator*™ (included)
- For more detailed information, please download and read the STM23 Hardware Manual or STM24 Hardware Manual, available at www.applied-motion.com/support/manuals.

Step 1 - Wiring

- Wire the drive to the DC power source.

Note: Do not apply power until Step 3.

The STM23C and STM24C accept DC supply voltages between 12 and 70 volts DC. If using an external fuse we recommend the following:

STM23C: 4 amp fast acting

STM24C: 5 amp fast acting

See the STM23 and STM24 Hardware Manuals for more information about power supply and fuse selection.

- Connect I/O as required by your application.

Cable part number 3004-318 can be used for this purpose

- Connect to the CAN network.

Cable part number 3004-310 connects one motor to the next (daisy-chain) in the CAN network

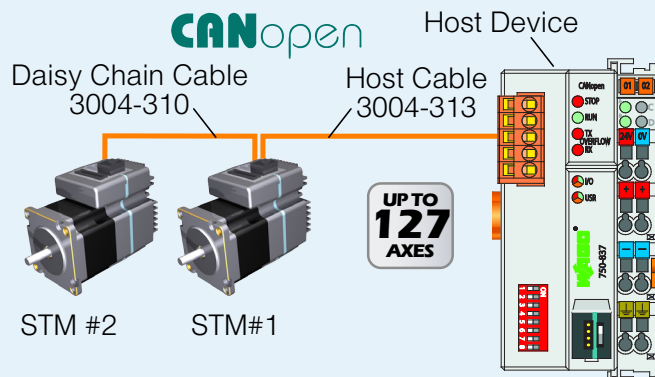
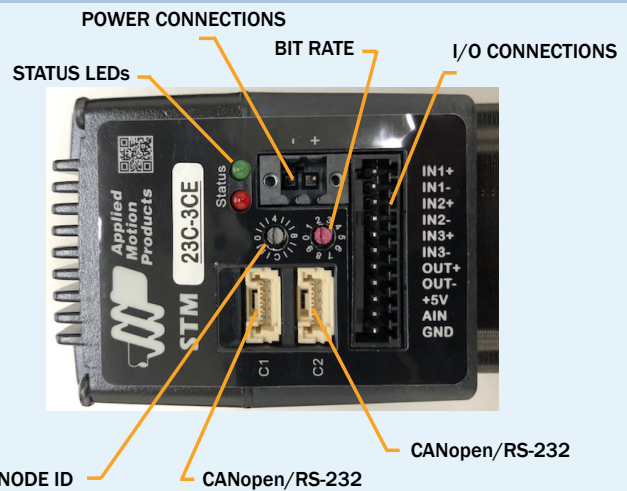
- Set Bit Rate and Node ID

Bit rate is set using a ten-position rotary switch. See Bit Rate table for settings.

Node ID is set using a combination of sixteen-position rotary switch and a software setting in *ST Configurator*. The sixteen-position rotary switch sets the lower four bits of the Node ID. *ST Configurator* sets the upper three bits of the Node ID. Valid ranges for the Node ID are 0x01 through 0x7F. Node ID 0x00 is reserved in accordance with the CiA 301 specification.

Note: Node ID and Bit Rate are captured only after a power cycle or after a network reset command has been sent. Changing the switches while the drive is powered on will NOT change the Node ID until one of these conditions has also been met.

- Connect the RS-232 programming cable (included) between the motor and the PC

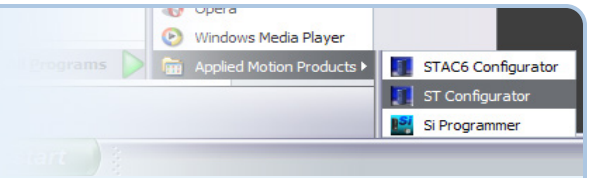


Switch Setting	Resultant Bit Rate
0	1 Mbps
1	800kbps
2	500 kbps
3	250 kbps
4	125 kbps
5	50 kbps
6	20 kbps
7	12.5 kbps
8	n/a
9	n/a

Bit Rate Table

Step 2 - ST Configurator

- Download and install *ST Configurator™* software, available at www.applied-motion.com.
- Launch the software by clicking Start/Programs/Applied Motion Products/ST Configurator
- If you have any questions or comments, please call Applied Motion Products Customer Support 800-525-1609 or visit us online www.applied-motion.com.



Step 3 Configuration

- Apply power to the drive.
- Use the *ST Configurator™* to set up the motor current, limit switches, encoder functionality (if applicable) and Node ID.
- The *ST Configurator™* includes a self-test option (under the Drive menu) to verify that the ST-M23C or STM24C and power supply are correctly wired and configured.
- When configuration is complete, exit the *ST Configurator™*. The drive will automatically switch to CANopen Mode.

The screenshot displays the ST Configurator software interface with several configuration windows open:

- Integrated Motor:** Shows settings for Running Current (3.00 amps), Load Inertia (.00000 g cm²), Accel/Decel Current (5 amps), Idle Current (50% (1.50 A)), and Idle Current Delay (0.40 secs).
- Velocity Control Mode:** Includes checkboxes for 'Use STEP input as Run/Stop command (closed = run)', 'DIR input controls direction of rotation', and 'Speed proportional to analog input'. It also shows Speed (10 rev/sec), Accel (100 rev/s/s), and Decel (100 rev/s/s) settings.
- Node ID Range:** A dialog box showing the Node ID Range set to 0x01 - 0x0F and a physical 'Front Panel Node ID Switch' with a yellow indicator pointing to '01'.
- I/O Configuration:** Shows various input and output assignments for the drive.
- Main Window:** Displays a 3D model of a motor and drive unit. The 'Drive' is set to STM235-2AN. A table on the right lists the current configuration:

Motor:	STM235-2AN
	3 Phase
	50% Idle
Mode:	Velocity Mode
	20000 steps/rev
	10.000 rev/sec @ 5V
I/O:	
STEP:	Run/Stop
DIR:	Direction
EN:	Change Speed
DUT:	Tach 100 ppr
AIN:	Speed

If you have any questions or comments, please call Applied Motion Products Customer Support: (800) 525-1609, or visit us online at applied-motion.com.

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