
# Applied Motion Products STF-EC EtherCAT Stepper Drives User Guide



Contents



## Applied Motion Products STF-EC EtherCAT Stepper Drives


## Requirements

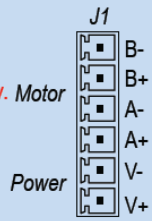
- A DC power supply
- A compatible stepper motor
- A small flat blade screwdriver for tightening the connectors (included)
- A PC running Windows XP/ Vista / Windows: 7/8/10/11 (32-bit or 64-bit) operating system
- Software: STF Configurator
- A CAT5 cable for EtherCAT master or daisy chain connection (included)
- A RS-232 cable for configuration(included)
- USB-serial to serial port adapter (if needed) we recommend Applied Motion 8500-003 USB-serial adapter
- I/O cable 3004-348 (optional)

## Step 1 – Installing Software

- Visit [www.applied-motion.com/](www.applied-motion.com/)products/software to download the STF Configurator software.
- Install the STF Configurator software on your PC.

## Step 2 – Wiring Power Supply

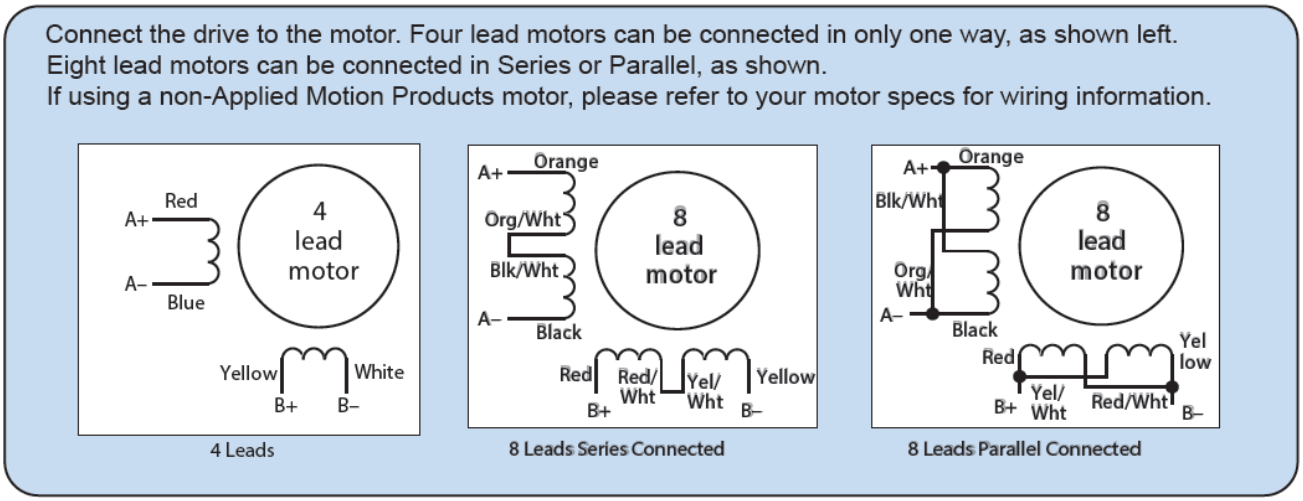
Connect the power supply's “+” terminal to the drive's "V+" terminal.
Connect the power supply's “-” terminal to the drive's "V-" terminal.
Note: Be careful not to reverse the "+" and "-" wires.
Reversing the connection may blow the internal fuse and void the warranty.
STF03 accepts DC voltage range from 12 – 48VDC
STF05 accepts DC voltage range from 24 – 48VDC
STF06 accepts DC voltage range from 12 – 48VDC
STF10 accepts DC voltage range from 24 – 70VDC




To ensure a proper earth ground connection, connect ground wire to the screw on the bottom side of the drive chassis.

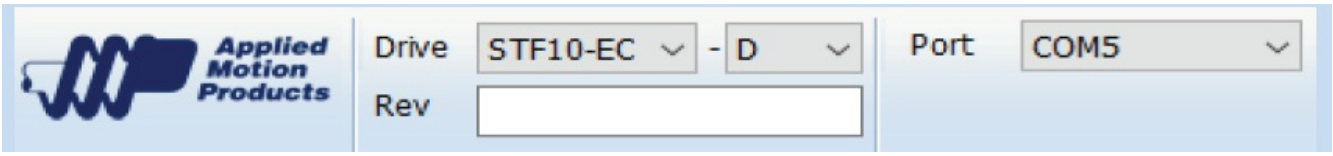
## Step 3 – Wiring the Motor

Connect the drive to the motor. Four lead motors can be connected in only one way, as shown left. Eight lead motors can be connected in Series or Parallel, as shown.
If using a non-Applied Motion Products motor, please refer to your motor specs for wiring information.

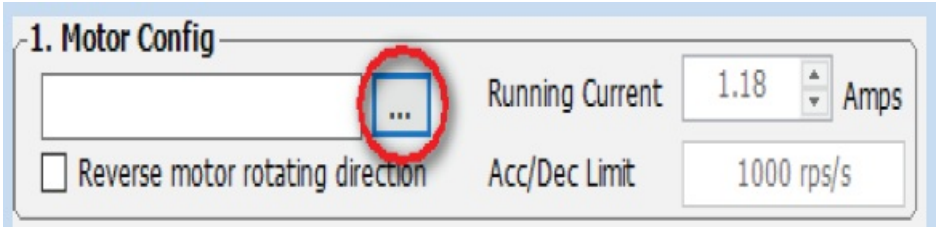



## Step 4 – Config the Drive

- Use the RS-232 cable provided to connect the drives port J3 with your host PC serial port, If the PC does not have an RS-232 serial port, a USB to RS-232 Serial, Converter will be needed. we recommend using a USB-serial adapter, model 3004-235 from Applied Motion Products.
- Run the STF Configurator software and select the correspondent COM port in the software.
- Apply power to the drive.

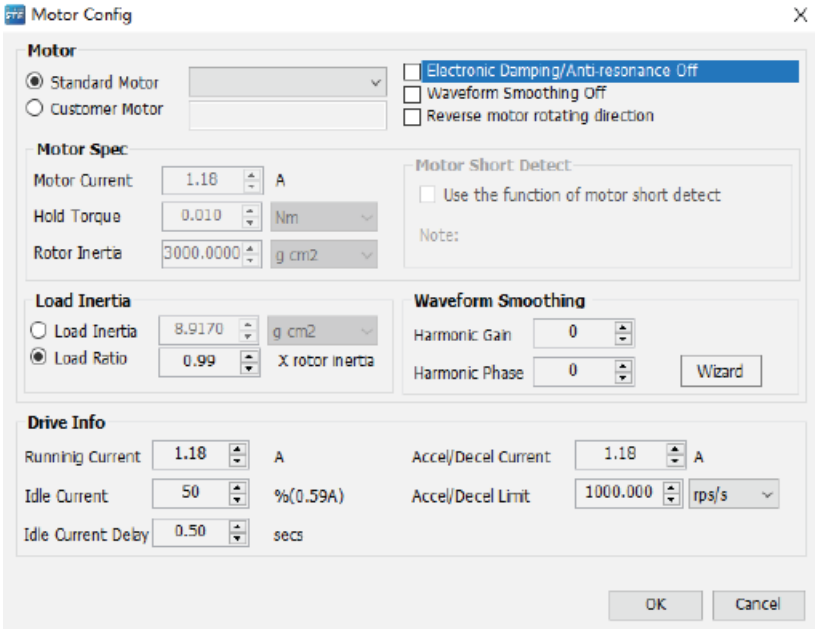



- the software will recognize the drive & display the model & firmware version.
- Click “Yes” to upload the drive configuration.




- Config your motor parameters, Applied Motion Products’ motor can be selected from the standard motor drop down list.

- Config the drive Control settings and I/O functions.




- When ready to test your configuration, click “Download All to Drive”.

**Step 5**
**Connecting the EtherCAT**
Dual RJ-45 connectors accept standard Ethernet cables and are categorized as 100BASE-TX (100 Mb/sec) ports. CAT5 or CAT5e (or higher) cables should be used.
The IN port connects to a master, or to the OUT port of an upstream node. The OUT port connects to a downstream node. If the drive is the last node on a network, only the IN port is used. No terminator is required on the OUT port. For connection with a master controller, please refer to connection guide on the Applied Motion Products website.18645 Madrone Pkwy Morgan Hill, CA 95037 Tel: 800-525-1609 [applied-motion.com](applied-motion.com)

## Documents / Resources

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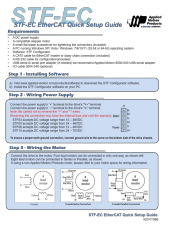
|  | Applied Motion Products STF-EC EtherCAT Stepper Drives [pdf] User Guide<br>STF-EC EtherCAT Stepper Drives, STF-EC, EtherCAT Stepper Drives, Stepper Drives, Drives |

## References

- Applied Motion
- Software Downloads | Applied Motion