

Manual for stepper motor driven Linear Drives 612-CLDxx-SM-Cxx (with 25/50mm travel, with CF16/CF40 flange)

This document describes the correct installation and bakeout procedure for the motorized linear drives.

Connection:

The stepper motor comes with 8 wires to allow all different types of connections. The most common connection method is the 4-wire parallel connection with bipolar driver.

Phase 1

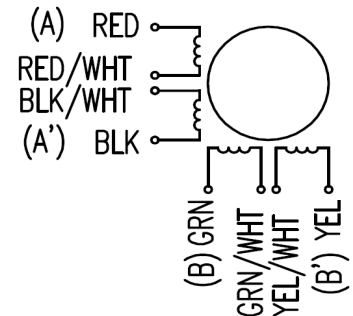
A: Red + Black/White
A': Black + Red/White

Phase2

B: Green + Yellow/White
B': Yellow + Green/White

If you want to use other connection methods, please refer to the diagram on the right for cable connection (5-wire / 6-wire or 8-wire connections are possible). For EMC regulations, a shield to the motor leads has to be added in most cases.

WIRING DIAGRAM



Technical data:

Max. current per phase	1.4A (unipolar serial)
Max. current bipolar parallel	2A
Max. current bipolar serial	1A
Resistance per phase	2.6 Ohm (bipolar: 1.3Ohm)
Inductance per phase	2.8 mH (@1kHz) (bipolar: 1.4mH)
Max. Temperature	80°C
Running temp. range	-10°C ...50°C



Bakeout:

For bakeout of the system, the motor has to be removed.
Max. temperature for the motor is 80°C, not running.

To remove the motor on an installed vacuum system, drive down to the lower limit (1).
Open the four screws in the Aluminium plate the motor is fixed to (2).
If the motor is still connected to the driver, run the motor in the same direction further on. The motor including plate will move to the back and is finally released. It can also be removed by screwing the motor off counter clockwise (3).
Please be careful with the free axis to avoid damage. Re-greasing might be required (4).

