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Wiring Diagram for Closed Loop Stepper Motor

For STEPPERONLINE's closed loop stepper motor with a GX-16 and DB-15 connector, the wiring sequence is as follows:

1. Motor Connection

| Pin | 1 | 2 | 3 | 4 |
|-------|-------|-------|------|-------|
| Pole | A+ | A- | B+ | B- |
| Color | White | Green | Blue | Black |

Or

| Pin | 1 | 2 | 3 | 4 |
|-------|-------|-------|-----|------|
| Pole | A+ | A- | B+ | B- |
| Color | Black | Green | Red | Blue |

2. Encoder Connection

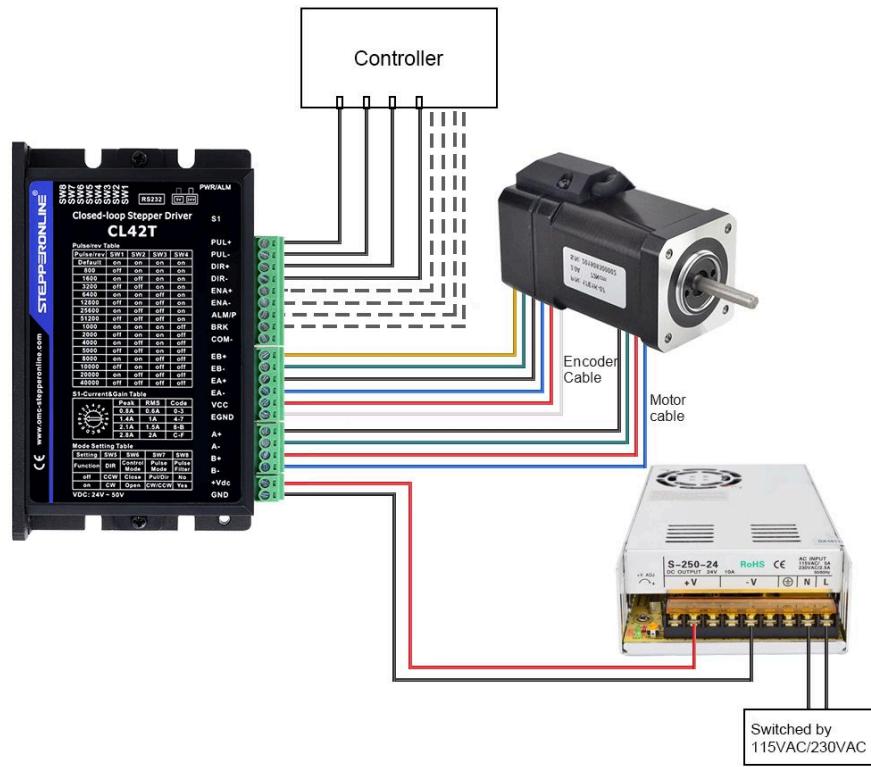
| Pin | 2 | 3 | 1 | 13 | 11 | 12 |
|---------|-----|-------|-------|------|--------|-------|
| Encoder | VCC | EGND | EA+ | EA- | EB+ | EB- |
| Color | Red | White | Black | Blue | Yellow | Green |

****Note: ****

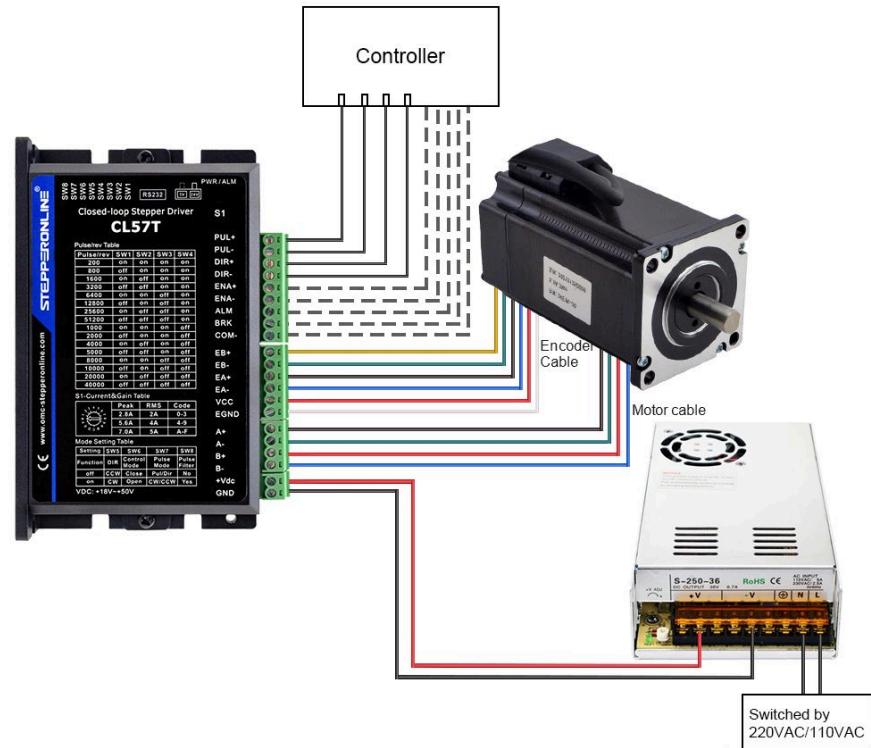
The motor wire is not a shielded wire.

The encoder wire is a shielded wire, and the thick black line on the encoder wire is the shield layer of the encoder wire, which does not need to be wired.

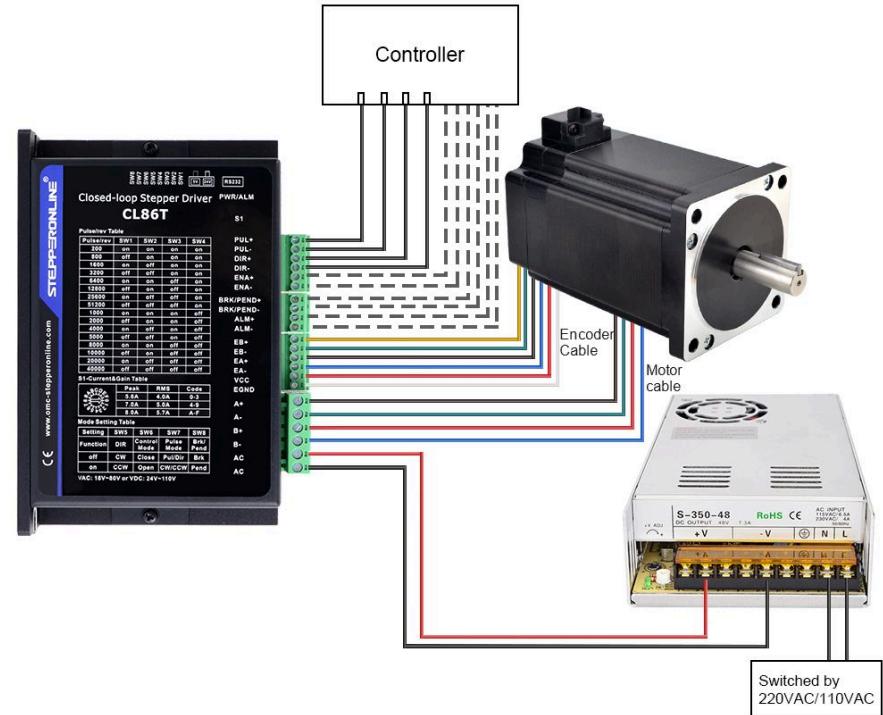
3. The wiring diagram is as follows:



3.1 CL42T is recommended for NEMA17 or smaller closed loop stepper motors, and the driving voltage is recommended to be 24V.

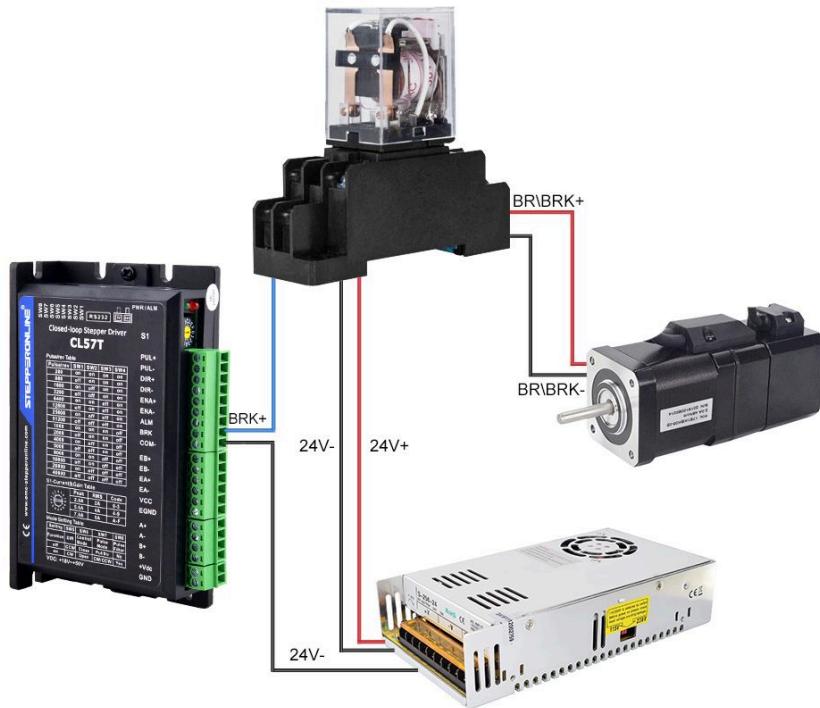


3.2 CL57T is recommended for NEMA23 or 24 closed loop stepper motors, and the driving voltage is recommended to be 24~48V.



3.3 CL86T is recommended for NEMA34 closed loop stepper motors, and the driving voltage is recommended to be 36~60V.

4. Schematic diagram for CL57T with brake:



5. Wiring diagram for magnetic encoder closed loop stepper motor.

There is no extension line for the magnetic encoder closed loop stepper motor, and the wiring sequence can be directly checked on the drawing.

Please refer to the wiring diagram for the 17HS15-1504-ME1K and 17HS19-2004-ME1K motor wiring sequence and diagram:

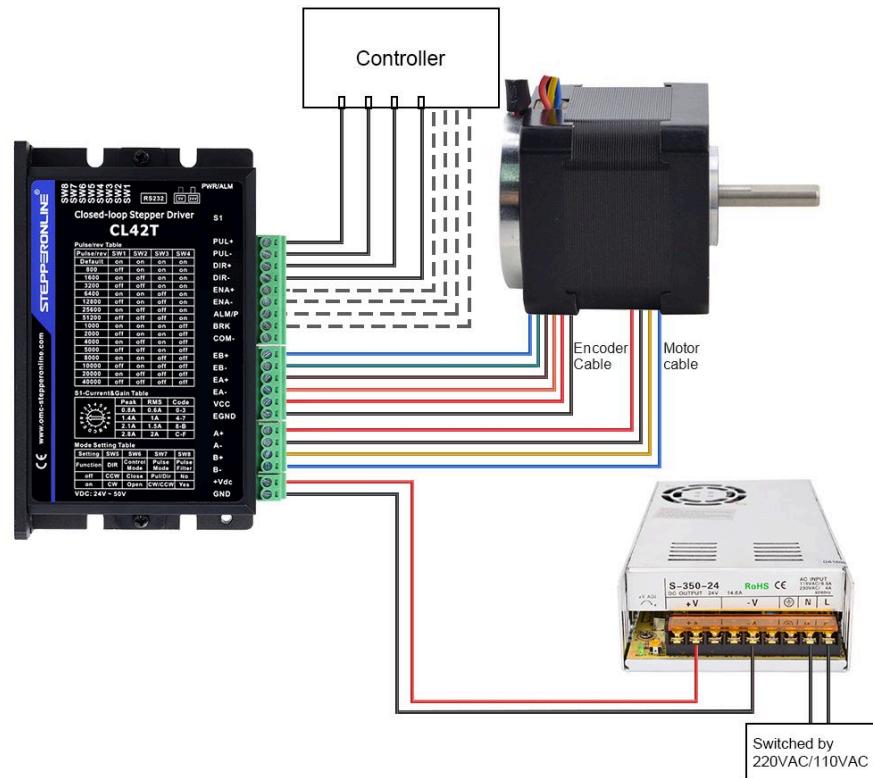
5.1 17HS15-1504-ME1K

| TYPE OF CONNECTION (EXTERN) | | MOTOR | |
|-----------------------------|---------|-------|---------|
| PIN NO | BIPOLAR | LEADS | WINDING |
| 1 | A+ — | RED | A+ — |
| 2 | A- — | BLK | A- — |
| 3 | B+ — | YEL | B+ — |
| 4 | B- — | BLU | B- — |

FULL STEP 2 PHASE-Ex , WHEN FACING MOUNTING END (X)

| STEP | A+ | B+ | A- | B- | CW | CCW |
|------|----|----|----|----|----|-----|
| 1 | + | + | - | - | ↓ | ↑ |
| 2 | - | + | + | - | | |
| 3 | - | - | + | + | | |
| 4 | + | - | - | + | | |

| ENCODER CONNECTION:1000PPR(4000CPR) | | | | | | | | |
|-------------------------------------|-----|------|-----|-----|-----|-----|-----|-----|
| LEAD COLOR | RED | BLK | BRN | ORG | BLU | GRN | YEL | WHT |
| DESCRIPTION | VCC | EGND | EA+ | EA- | EB+ | EB- | EZ+ | EZ- |



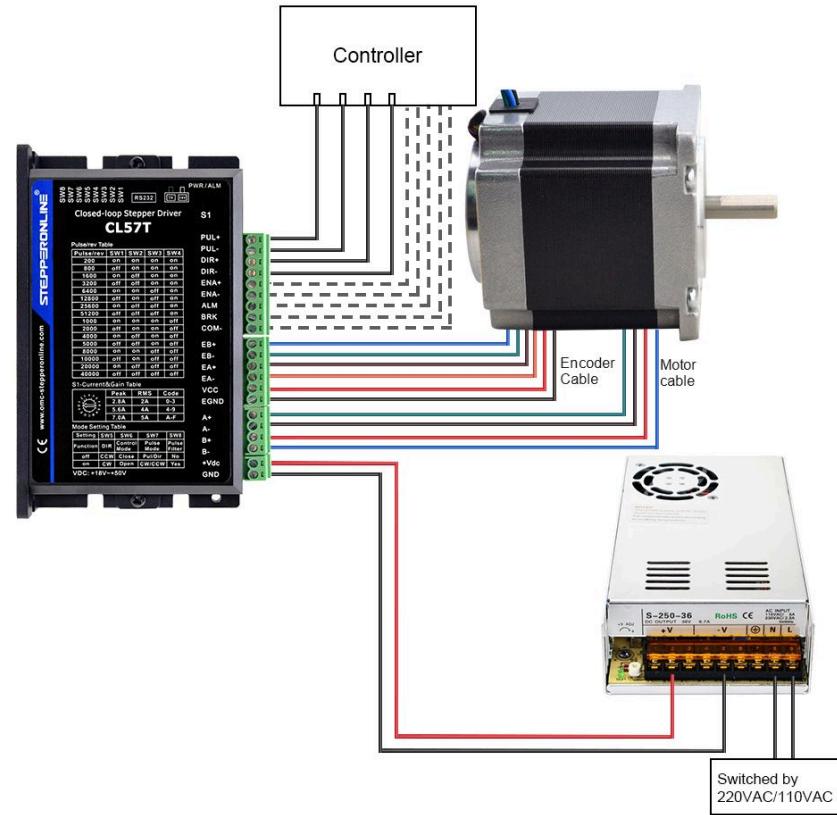
5.2 23HS22-2804-ME1K

| TYPE OF CONNECTION (EXTERN) | | MOTOR | |
|-----------------------------|---------|-------|---------|
| PIN NO | BIPOLAR | LEADS | WINDING |
| 1 | A — | GRN | A |
| 2 | A\ — | BLK | A\ |
| 3 | B — | RED | B |
| 4 | B\ — | BLU | B\ |

FULL STEP 2 PHASE-Ex. ,
WHEN FACING MOUNTING END (X)

| STEP | A | B | A\ | B\ | | CW |
|------|---|---|----|----|-----|----|
| 1 | + | + | - | - | | |
| 2 | - | + | + | - | | |
| 3 | - | - | + | + | | |
| 4 | + | - | - | + | CCW | ↑ |

| ENCODER CONNECTION:1000PPR(4000CPR) | | | | | | | | |
|-------------------------------------|-----|------|-----|-----|-----|-----|-----|-----|
| LEAD COLOR | RED | BLK | BRN | ORG | BLU | GRN | YEL | WHT |
| DESCRIPTION | VCC | EGND | EA+ | EA- | EB+ | EB- | EZ+ | EZ- |



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