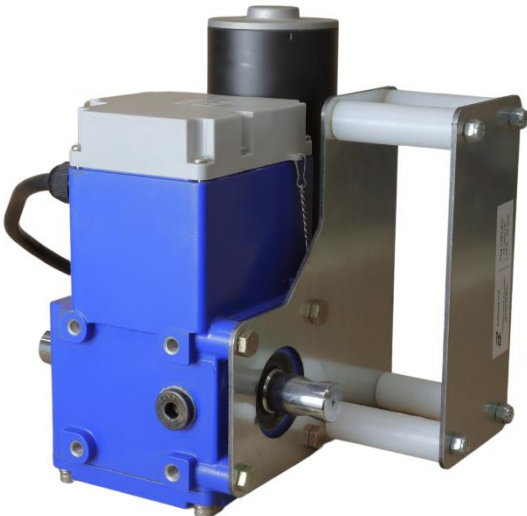
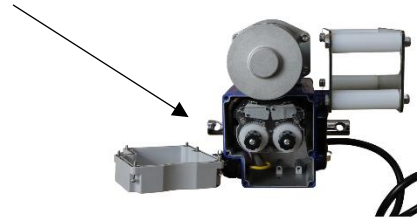


CMD-402 Curtain/ Vent Motor



What keeps the motor from rolling too far?

The answer is the limit switches. They are under the white cover. There is 2 of them. A upper and lower Knob.



Can I change where the motor stops?

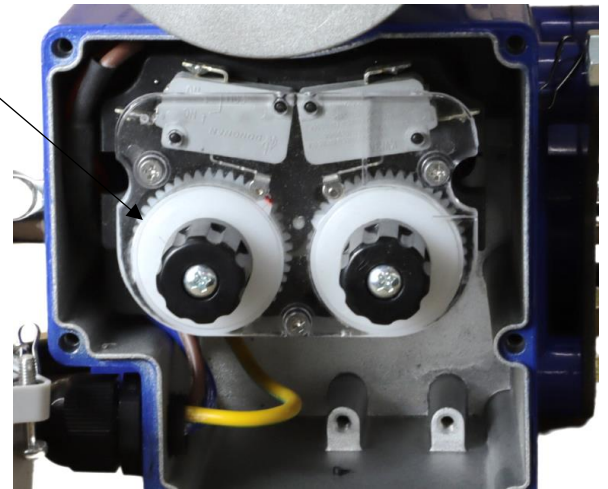
Yes. The particular position of the limit knobs sets the stopping point

There are 2 knobs, what does that mean?

A knob only stops either the upper or lower position. It takes both to stop at each end.

How do I know which knob is for the upper limit position?

The problem is it varies depending on the installation. It takes experimentation to figure it out for your installation.



How do I adjust the upper limit

Determine which knob stops the motor from rolling upwards.
Adjust the knob in small increments. Watch the stopping point
Run the motor to test the position.
Repeat until motor is at desired position. This process is much easier with a 2nd person.

Tighten the center screw before adjusting the other knob.

I can't turn the knob, what's wrong?

The screw in the center of the knob needs to be loosened slightly.

My motor loses position, in a very short time.

The screw in center of limit knob needs to be hand screwdriver tight. If its slightly loose the knob will move on it own.

My rollup fabric has a big lump in it and motor wraps up too far. Fabric is tearing and everything is tight. What's wrong?

The problem is fabric isn't rolling evenly. Bad rolling gets it to the top too soon.
The motor doesn't know its not winding up poorly. It goes the same rotation count regardless. Motor limits are dumb. They only know total rotations.
Unroll the fabric, pull it taunt to remove all wrinkles. Try again until it rolls evenly.

The motor doesn't go at all. Even when its connected to a controller

Use a voltmeter, check if there is 24v at the end of the cord. Test voltage with control opening and closing.

Can I connect the CMD-402 directly to a outlet?

No, you will burn out the motor ad void warranty. Its a 24vdc device

Does gearbox orientation matter?

Yes installed orientation is very important.

Why does orientation matter?

Because it will ruin motor, if installed upside-down or sideways

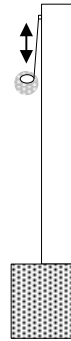
How do I orient the CMD-402?

Install with motor at the top. Always motor above the limit switches.



How close can I set my top position

Don't set it too close. It will roll differently from summer to winter, You want about 6 inch room for error.



What wire gauge can use to extend wires:

12 awg: Max length 100'

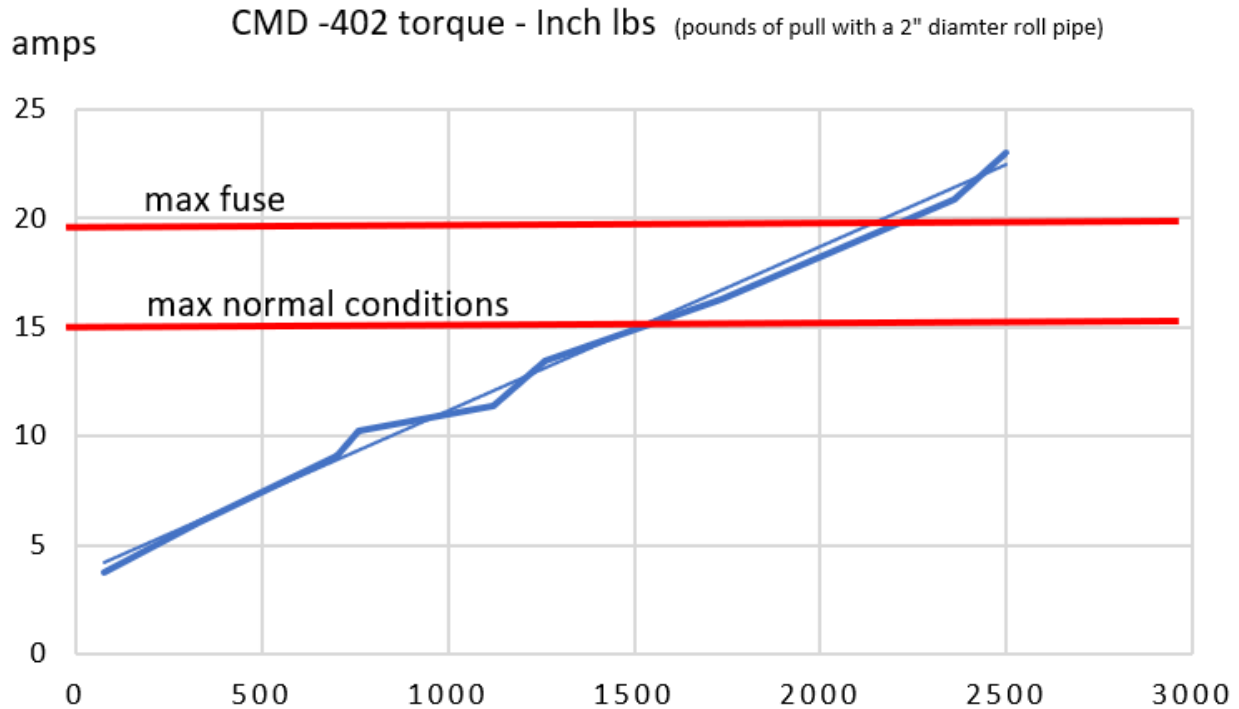
10 awg : Max Length 160'

Specifications

Rated amps	15
Rated volts	24vdc
RPM	3
Max rotations	38
Weight without accessories	23 lb
Output shaft size	(2) 0.87"
Max circuit breaker size	20 amp
Max torque	2200 inlb

Motor torque

The CMD-402 max torque is approx. 2200 inlb. The largest circuit breaker/fuse we recommend is 15 amps. Under normal conditions, keep the load to 15 amps or less, so there is some reserve for unusual conditions.



The chart above shows amps versus torque.

How big of a curtain can I roll with a CMD-402

Our experience is, this torque is a nominally 400ft of bottom rolling curtain. With a 2inch roll pipe and no ice.

Bottom rolling versus middle rolling curtain

We recommend rolling curtains from the bottom.

Center rolling curtains turn 2 or 3x harder. Take way more torque. Especially if wind is blowing curtain against grippy bird wire.

CMD-402 Pot feedback

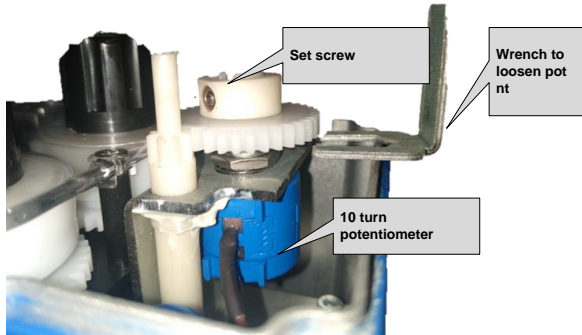
The pot feedback gives 3 wire position feedback to a curtain controller.

The pot does a maximum of 10 revolutions. It has a hard stop on both ends.

The position of the pot can be accidentally offset from the limit switches.

This could allow the pot to run against itself before reaching a limit.

The set screw is in a plastic slip ring. This theoretically allows slippage if pot gets run against its rotation limit.



Pot connection
 Brown : Voltage input
 Green : Voltage output
 Blue : Negative

Setting the pot position for the first time:

With the motor installed on the curtain:

- A. Use the wrench, loosen the pot's nut, slide it back till teeth don't engage.
- B. Run the motor from top to bottom.. Set the limit knobs, so curtain stops without binding
- C. Run the motor fully closed.
- D. Watch which direction the pot is moving as it closes
- E. Advance the pot in the closing direction, till it doesn't go anymore, reverse it 1 turn.
- F. Slide pot back into position. Retighten. Test

CMD-402 POT V1

CMD-402 potentiometer option

Need position feedback? The pot feedback can communicate the real time position to vent controllers that need it. 3 wire connection

