Brushed Motor Break-In Procedure

For your brushed motor to last as long as possible it is important to allow the brushes to seat onto the rotor properly. This will keep the parts cool, help with efficiency and prevent premature wear on both the brushes and the rotor.

Safely mount the motor onto a rigid plate so it cannot move. This is important as it will want to twist suddenly when power is applied. With most new brushed motors you can attach a 12v battery to the two terminals and let the motor run for an hour or so. It will arc slightly when you make the connection. You'll notice the sound will get noticeably quieter. Reverse the polarity and it will run in the opposite direction.

Once you've wired the motor to the motor controller you'll be able to adjust the speed even more. Add throttle so the rpm rises and let it spin for another 20 minutes or so at different speeds. Once you're ready to use the motor in your vehicle, it's recommended by the manufacturer that you fluctuate the speed and also that you do not draw max current right away. Give it time and your motor will thank you in the long run.

Motenergy Motor Timing

The following instructions were provided by Motenergy for the ME1003 brushed motor, but are relevant for some of their other brushed motors as well.

The ME1003 will run in the CW direction if the terminals are reversed, but the efficiency will not be as good. If it's required to run in the CW direction as the primary direction, the brush timing should be adjusted.
To adjust the timing:

1) Remove the 4 phillips head bolts on the back cover (black stamped steel). Then, tap off the cover.

2) You will then see that the top aluminum casting which holds the Brush Holder is held to the motor with 4 bolts, M10 head. These bolts are in a slot in the casting, and the bolt is rotated all the way to one side of the slot.

3) Loosen the bolts, and rotate the casting the opposite direction for CW rotation to get the best efficiency at 200 amps continuous.

What you're typically looking for is the lowest current draw (unloaded) at your max speed, in the same direction you'll be using the motor in.