Motor Minute™ Technical Tip – How To Identify Constant Torque vs. Constant Airflow ECM Motors

Hi, Chris from Regal here with your Motor Minute™ technical tip. Helping you become an HVAC motor pro one minute at a time.

In this segment of Motor Minute technical tips we will talk about how to identify constant torque vs. constant airflow ECM motors.

ECM Indoor Blower Motors Overview

ECM indoor blower motors are predominantly built in two common configurations:

- Constant torque, multi-tap using 24 VAC for the speed taps
- Constant airflow, communicated

Constant Torque ECM Indoor Blower Motors

- These motors are predominantly built with a recognizable standard 9-terminal plug at the motor.
- The terminal designations are also typically embossed in the area around the plug.
    - (L) and (N) are the line voltage connections
    - (G) is ground
    - (C) is 24 VAC common
    - (1-5) are the 24 VAC speed taps

Constant Airflow ECM Indoor Blower Motors

These motors are predominantly built in two common configurations.

- One is built with a recognizable 16-pin plug for communication and 5-pin plug for line voltage.
- The other is built with a recognizable 4-pin plug for communication and the same 5-pin plug for line voltage.

For more information about constant torque and constant airflow ECM motors, including applications, operation, airflow adjustments and diagnostics please visit regalmmu.com and select the articles and/or podcast section.

And that's a wrap on this segment of Motor Minute™ technical tips. Remember that we provide motor training and product information in multiple formats including videos, literature, podcasts, articles, of course Motor Minute technical tips and classroom education both online and face to face. All of this industry leading training is available at no charge to HVAC professionals at regalmmu.com. Thank you for taking the time to build your motor knowledge.