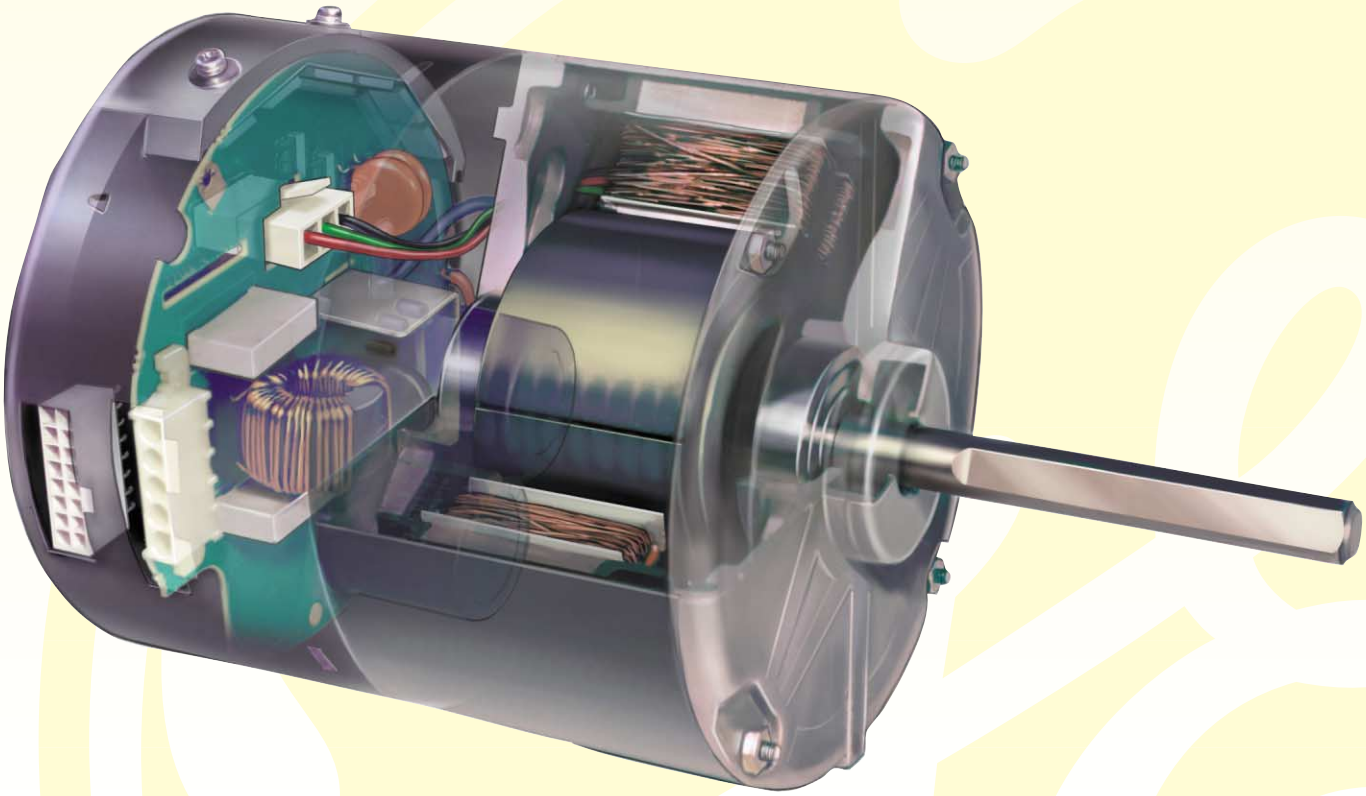
GE Industrial Systems

Presenting the GE ECM™ 2.3 Series Motors

The most efficient and versatile motors for any air-moving application.



GE's third-generation ECM 2.3 motors offer virtually unlimited performance possibilities

The family of ECM 2.3 motors offers many possibilities for integrating new capabilities into your products. Their wide speed range, high efficiency and programmability give them a virtually unlimited range of performance characteristics. All in one highly reliable, field-proven, convenient package that allows you to imagine possibilities that no conventional induction motor or competing variable-speed technology could provide.

Create better products with the ECM 2.3.

With features unavailable with conventional induction motors, the ECM motor gives product designers and engineers an extremely versatile tool for improving HVAC-system performance and differentiating products. Here are some examples of the system benefits made possible by the ECM motor: better humidity control, constant airflow, lower set-up and inventory costs, quieter operation, and better indoor-air quality.

Programmable Controls.

Just one motor can optimize your system performance and minimize your inventory. Programming options for the ECM 2.3 include: rotation direction, start/stop ramp rates, on/off blower delays and many other functions—all stored in the motor's microprocessor. Even its speed and torque characteristics can be customized to meet specific performance requirements. As a result, programmability means lower inventory because one motor can serve many applications.

Constant airflow.

The most important programmable feature is GE's patented sensorless, constant-airflow technology that allows the ECM 2.3 to maintain a programmed level of airflow over a wide range of external static pressure in an air-distribution system. It even holds airflow constant under less-than-optimum duct configurations and other conditions that produce high or varying static pressure. It does so by automatically adjusting its speed and torque to deliver the airflow you program into it. Constant airflow capability is critical to providing the greatest performance and comfort. (Go to www.GEindustrial.com, *enter keyword: ECM*, for further details about constant airflow.)

Resilient electronics.

Line transients from lightning strikes or corrupt utility power can cause damage or a temporary interruption of power to any electrical appliance. The ECM 2.3 Series comes standard with robust electronics that allow the motor to operate trouble-free in the event of power irregularities without spark gap. In addition, short power-line interruptions or under-voltage conditions do not affect the operation of the ECM 2.3.

Easy installation and service.

The ECM 2.3 is designed to be easy to install, troubleshoot and service. There is no need to go to the motor for set up. In fact, there are no dip switches or adjustment terminals on the ECM 2.3. The system manufacturer can locate all connections required for set up in any convenient location. When it comes to service, the 2.3 is designed so its electronic controller can be replaced without removing the motor from the blower mounting which greatly reduces service time and cost.

Ultra-high efficiency.

At full load the ECM 2.3 is 20% more efficient than a standard induction motor. In addition, its permanent-magnet, DC design, absence of rotor losses and high power factor allow it to maintain its high efficiency over a wide speed range (go to www.GEindustrial.com, *enter keyword: ECM*, for complete energy-savings data).

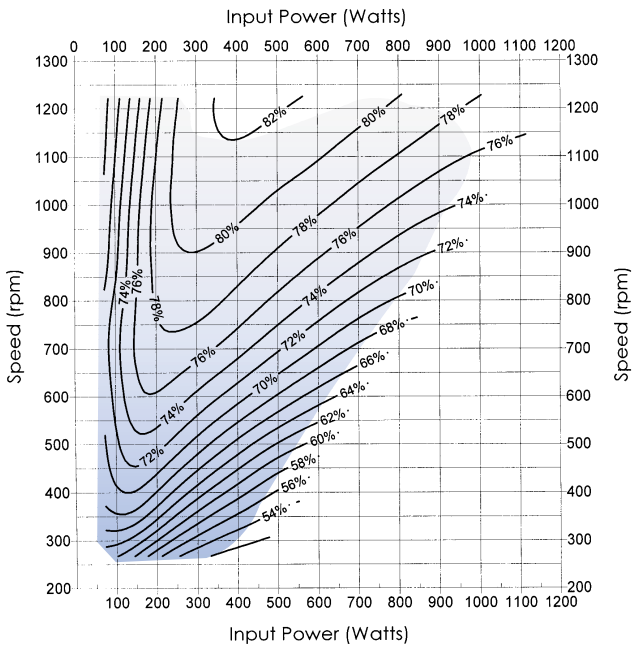
Moisture-resistant design.

The ECM 2.3 addresses the most common problem today in forced-air systems—moisture. GE encapsulates the motor's sensitive controls in potting material to prevent water from reaching its electronic components. In fact, the ECM 2.3 stands up to more than 600 hours of ASTM-B117 salt-spray testing.

Wide range of applications.

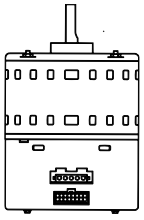
The ECM motor has given product designers and engineers a tool for greatly expanding the capability of air-moving appliances. Here are a number of current applications: single-stage, two-stage and variable-capacity furnaces; air handlers; energy-recovery ventilators; powered filter units; unit ventilators; geothermal heat-pump systems; and commercial fan-powered terminal units.

1 HP Efficiency
240V Design

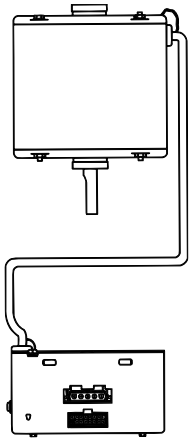


A model for every job.

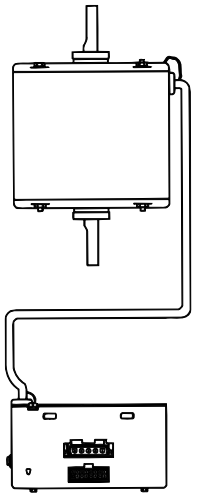
The ECM 2.3 Series is available in three configurations:



Integrated Motor & Control



Remote Control Single Shaft



Remote Control Double Shaft

Rated Power Level		Rated Input Power and Torque @ 1050 RPM		Maximum Input Current Rating at Nominal Input Voltage		
HP	Max Power @< 45˚C	Full Torque @25˚C				
	Watts	Oz-Ft	N-M	120vac	240vac	277 vac
1/3	385	28	2.37	5.0 amps	2.8 amps	2.4 amps
1/2	560	42	3.56	7.7 amps	4.3 amps	4.1 amps
3/4	860	66	5.59	9.6 amps	6.8 amps	5.5 amps
1	1050	80	6.78	12.8 amps	9.1 amps	6.9 amps

Agencies

UL: File # E100625 (motor & control)
CSA: File LR68565 (motor)
CSA: File LR68566 (control)
CE: Certificate of Conformity #156
(for complete agency details, go to www.GEindustrial.com
enter keyword: ECM

EMI Limits

Unit meets FCC Part 15, class B, for conducted EMI. Radiated EMI is influenced by cabinets, grounding, etc., at installation.

Calibrated Torque

100% dynamometer calibration of each unit with calibration stored in memory.

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