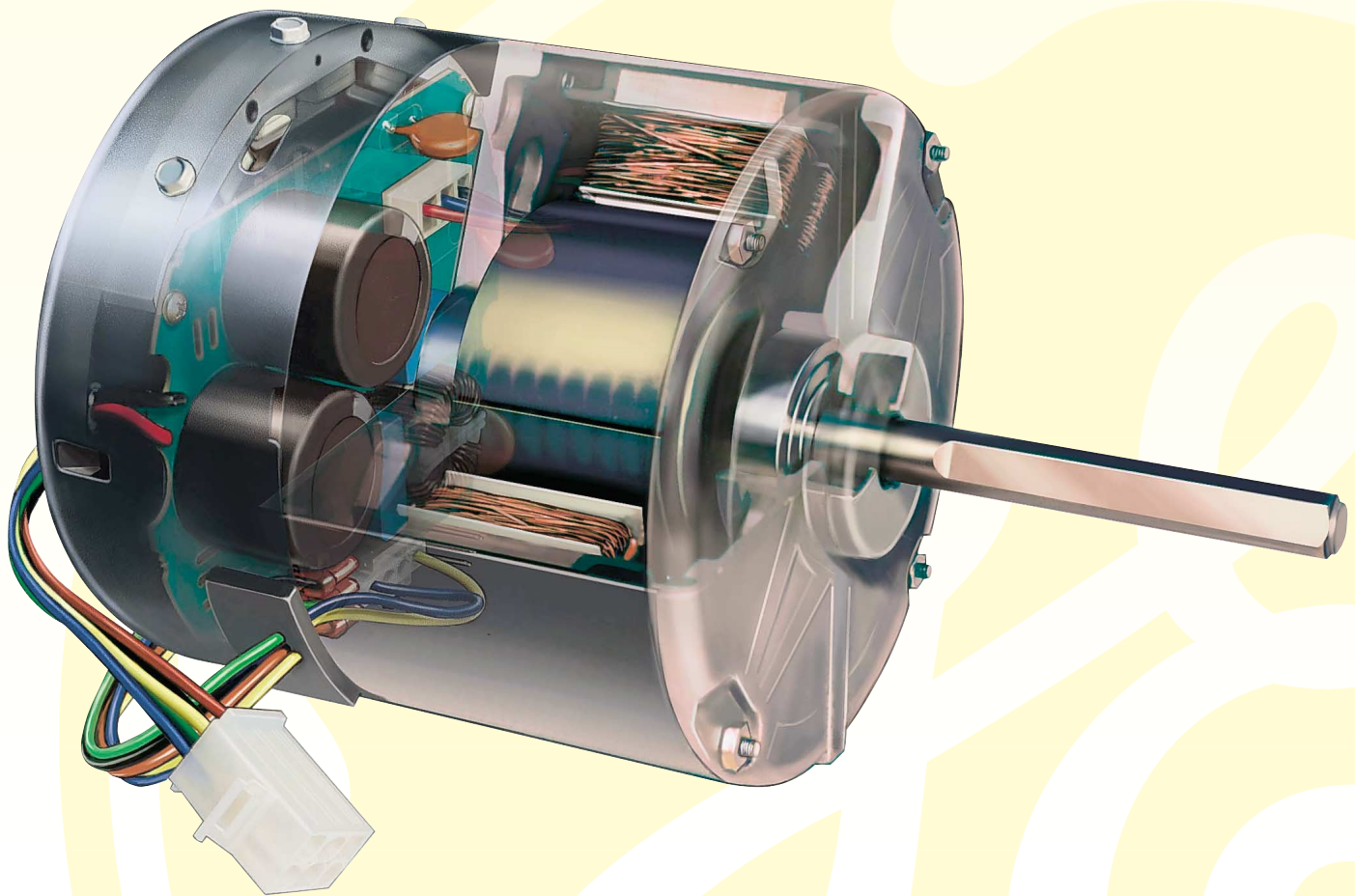




GE Industrial Systems

Introducing the **GE ECM™ 142** Series Motors

ECM efficiency, performance and field-proven reliability for less cost.



The GE 142 Series motors offer ECM performance and great economy.

For air-moving applications that don't require the full features of the ECM 2.3 motor, now there's the ECM 142 Series—the first to offer ECM efficiency, performance and field-proven reliability for less cost.

The ECM 142 Series niche

For more than 10 years, the original ECM 2.3 blower motor has offered manufacturers the ability to deliver constant airflow in forced-air systems. Furthermore, it has always provided dozens of programming options for those systems in ratings ranging from 1/3 to 1 horsepower. Over time, GE has identified a number of air-moving applications that

require the same high efficiency, and precise speed and torque control of the ECM 2.3 but without its full matrix of programming and control options. For those applications, the company has created a lower-cost alternative to the ECM 2.3—the ECM 142 Series.

ECM 2.3 VS. ECM 142

| Construction | ECM 2.3 Series | ECM 142 Series |
|--|---|--|
| <ul style="list-style-type: none"> • ratings • mechanicals • input voltage • speed • location | 1/3, 1/2, 3/4, 1hp single or double shaft integral or remote control 120/240 volt or 277 volt 0-1,500 rpm indoor | 1/3 hp single or double shaft integral or remote control 120 volt or 240 volt 0-1,500 rpm indoor or outdoor |
| Modes of Operation | | |
| <ul style="list-style-type: none"> • variable speed • thermostat | via pwm control 30 memory settings via 24 volt control | via pwm control 15 memory settings via 24 volt or 120/240 volt control |
| Options | | |
| <ul style="list-style-type: none"> • delay profiles • output signal • slew (ramp) rate • soft start | yes yes yes, programmable yes | no no yes, fixed rate yes |

Note: for complete product design specifications, go to www.GEindustrial.com enter keyword: ECM

Create better products with the ECM 142.

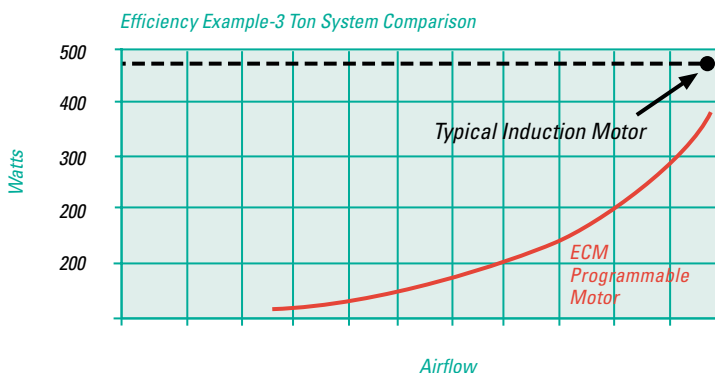
With features unavailable with conventional induction motors, the ECM technology gives product designers and engineers an extremely versatile tool for improving HVAC-system performance and differentiating products in indoor or outdoor applications. Here are some examples of the system benefits made possible by the ECM 142 motor: precise speed and torque control, lower set-up and inventory costs, and quieter, more economical operation.

Programmable Controls.

Just one motor can optimize your system performance and minimize your inventory. Programming options for the ECM 142 include: rotation direction, speed and torque, and many other functions—all conveniently programmed into the motor by GE at the factory. As a result, programmability means lower inventory because one motor can serve many applications.

Ultra-high efficiency.

At full load the ECM 142 is 20% more efficient than a standard induction motor. In addition, its permanent-magnet, DC design allows it to maintain its efficiency over its wide speed range.



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 142 Series comes standard with robust electronics that allow the motor to operate trouble-free in the event of power irregularities without external protection. In addition, short power-line interruptions or under-voltage conditions do not affect the operation of the ECM 142.

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 possible applications: outdoor condenser fans; 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.

Moisture-resistant design.

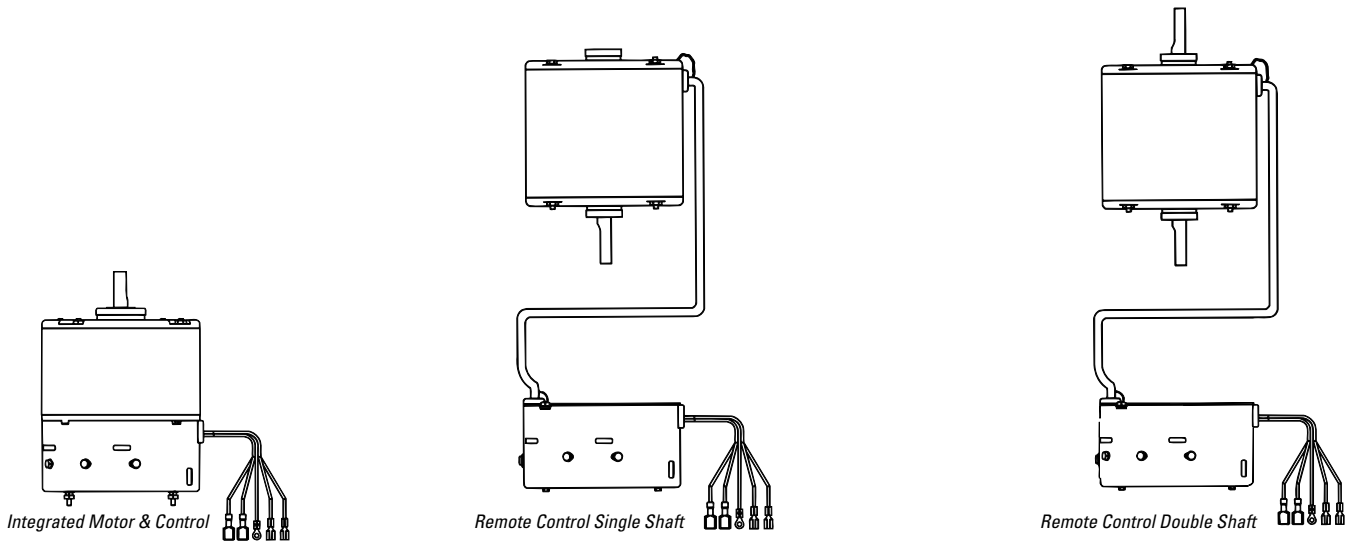
The ECM 142 addresses the most common problem today in HVAC systems—moisture. GE encapsulates the motor's sensitive controls to prevent water from reaching its electronic components. In fact, the ECM 142 stands up to more than 600 hours of ASTM-B117 salt-spray testing.

Easy installation and service.

The ECM 142 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 142. The system manufacturer can locate all connections required for set up in any convenient location. When it comes to service, the 142 is designed so its electronic controller can be replaced without removing the motor from the blower mounting, which greatly reduces service time and cost.

A model for every job.

The ECM 142 Series is available in three configurations:



| Rated Output Power Level @ < 45° c | | Rated Output Torque @ 1050 RPM | | Maximum Input Current Rating @ Nominal Input Voltage | |
|------------------------------------|-----------|--------------------------------|----------|--|------------------|
| 1/3 hp | 385 watts | 28 oz-ft | 2.37 n-m | 5.0 amps @120vac | 2.8 amps @240vac |

Agencies

UL: File # E100625 (motor & control)
 Pending CSA: File LR68565 (motor)
 Pending CSA: File LR68566 (control)
 CE: Certificate of Conformity #156
 (for further 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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