Fan Energy Rating (FER)

Frequently Asked Questions

What is FER?

The Fan Efficiency Rating ("FER") is a regulation passed by the Department of Energy in 2014 that limits the power consumption (watts per cfm) of furnace fans on certain HVAC equipment.

What does it mean for me?

Furnace fans, also known as blowers, that use a permanent split capacitor (PSC) motor cannot meet the power consumption requirement. Therefore, after July 3, 2019, furnaces may only be manufactured with an electronically commutated motor (ECM), as they are more efficient than a PSC motor. ECM motors can be either constant torque or variable speed (standard constant torque ECM motors do not have variable speed functionality). Inducer fans are not covered under the regulation.

Which products are impacted?

All furnaces (gas, oil and electric), modular blowers (with and without electric heat), and gasfired residential package units. Air handlers typically used with heat pump systems are not affected by this regulation.

Can I sell a furnace or package unit with a PSC motor after July 3, 2019?

Yes, there is no restriction on selling or installing equipment with a PSC motor that was built before July 3, 2019.

What happens if I have a warranty claim for a PSC motor?

PSC motors will still be available for warranty replacements and non-warranty repairs.

Is there a difference in servicing PSC vs. ECM?

The main difference is that a PSC motor uses a capacitor, and an ECM does not, which typically makes trouble-shooting easier on an ECM.

The right equipment for every homeowner

With the upcoming FER (Fan Energy Rating) regulations taking effect starting **July 3, 2019**, now is the best time to start talking to builders about the regulation change.

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Below you will find a chart that walks through the added benefits to a homeowner like airflow, indoor air quality, and AHRI match-ups .

	ECM: Variable Speed	ECM: Constant Torque	Permanent Split Capacitor (PSC)
Ability to adjust to system changes causing airflow resistance	**Best** - Variable speed motors can automatically adjust their RPMs in order to maintain a constant volume of air. It can also ramp down or increase to any level required. Therefore, it saves energy.	**Better** - Constant torque motors have 5 set speeds and can handle system changes, such as old duct-work or going from a low-end to high-end filter, better than a PSC motor.	**No** - PSC motors only have 1 speed and do not have the ability to adjust to system changes in static pressure (airflow resistance).
Indoor Air Quality (IAQ)	**Best** - Variable speed motor can clean the air in your home when the fan is in constant operation. The motor will continue to slowly circulate air, allowing filters to capture more contaminants. It also allows for more humidity control and even temperatures throughout your home.	**Better** - Constant torque motors help clean the air in your home similar to a variable speed motor. However, because it only has 5 set speed settings, the volume of air coming through is not as precise.	**Limited** - IAQ air volume and operating costs will be higher compared to Variable Speed and Constant Torque motors.
AHRI Rating Available	**Yes** -These may qualify for utility rebates or incentive with overall system efficiency improvements of up to 1 SEER.	**Yes** - These may qualify for utility rebates or incentives with overall system efficiency improvements of up to 1 SEER.	**No** - PSC motors do not qualify for utility rebates or incentives.

With the upcoming FER (Fan Energy Rating) regulations taking effect starting July 3, 2019, now is the best time to start talking to builders about the regulation change. Below you will find a chart that walks through the added benefits to a homeowner like airflow, indoor air quality, and AHRI match-ups. Lennox has a full line of FER compliant furnaces which either come with variable-speed airflow to precisely adjust the flow of air and help control humidity levels for a more comfortable environment, or trademarked Power Saver™ technology, which provides more consistent temperatures, more even airflow, and quieter operation, while still using energy efficiently. Below you will find our current line of furnaces that will be FER compliant after July 3rd.

90% Gas Furnace

	ECM: Variable Speed	ECM: Constant Torque
Modulating	SLP98V	
2 Stage	SL297NV EL296V	EL296E
1 Stage		EL196E EL195NE

80% Gas Furnace

	ECM: Variable Speed	ECM: Constant Torque
2 Stage	SL280V SL280NV	
1 Stage		EL180NE ML180E