



FlexSpeed™ motor

Proven technology delivers better performance

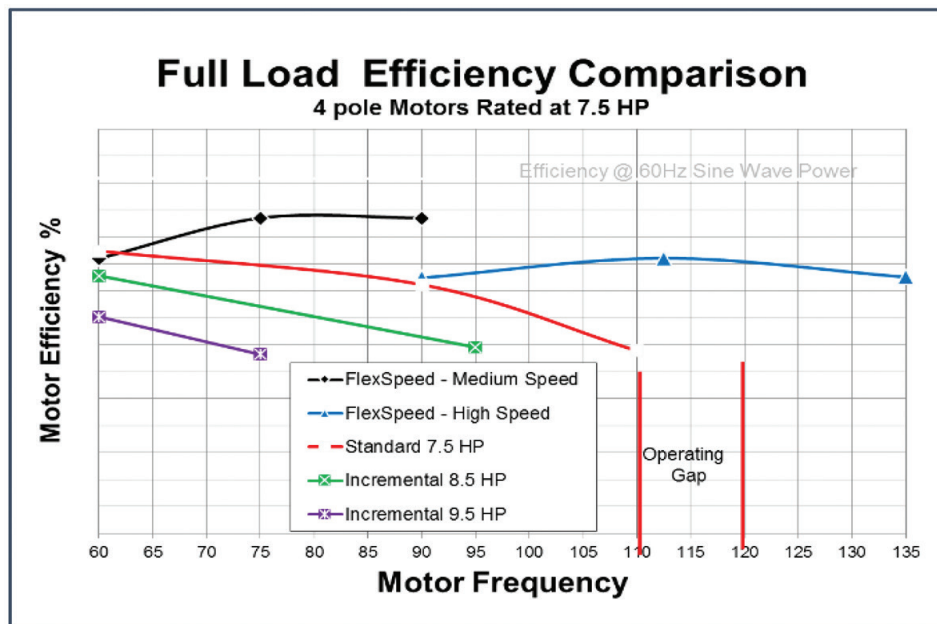
FlexSpeed™ is the first motor that is specifically designed to power fan arrays with variable frequency drives (VFDs) resulting in efficiencies well above today's general purpose motors operating greater than 60 Hz. FlexSpeed utilizes proven induction motor technology that has the advantage of over 127 years of development and reliability refinements.

Cost effective motor, at premium efficiency

- Better payback over the life of the motor due to FlexSpeed's higher operating efficiency
 - FlexSpeed uses 3% less power than a general purpose motor over entire operating range
 - FlexSpeed can offer 5% reduction in annual power usage vs. competitive "incremental horsepower" motors
- Reduce motor maintenance & increase reliability since FlexSpeed motors run cooler for longer motor life

Recently discovered: General Purpose Motors fall short

Motor efficiency drops off as you run further in the gap – past the constant horse power range of operation – and above the base design frequency of 60 Hz. A gap exists in the selection range between 2940 and 3525 RPM. This gap forces a de-rate of the motor to operate in this RPM range.



We make AHU technology. **Better.**

Independent lab tested performance

FlexSpeed motors have been tested for efficiency, power factor and temperature rise on VFD power over the constant HP range of the motor.

General purpose motors have not been tested for efficiency, power factor and temperature rise powered by drives over the constant HP range of operation.

Due to the lack of testing, there is no means of identifying performance over that range.

Performance data for motors is only available at design frequency and design voltage – data is not available outside those specifications. Testing every specific motor design is the only accurate method to identify how a motor performs on VFDs at higher frequencies.

This test program is ClimateCraft's commitment to our customers to deliver highly efficient and reliable systems.

Why choose FlexSpeed?

Fan arrays are direct coupled to the motor shaft. This requires the motor and fan to run at the same speed – meaning the motor speed at the fan design point is no longer running at 60 Hz. FlexSpeed motors have been developed to overcome short-comings of general purpose motor technology.

- More efficient over entire constant HP selection range for fan arrays (60-120Hz)
- More efficient at full and part load
- Runs cooler than integral horsepower motors for longer life

FlexSpeed offers:

- Elimination of selection gap from 2940 to 3525 rpm that exists when using general purpose motors. No de-rating required
- Optimized motor efficiency in the constant horse power range of operation
- Best part load efficiency and reliable, proven technology with standard 5-year warranty

Features & Benefits

- Internal shaft grounding brush supplied on all motors
- Grease zerks and spring loaded relief vents on all bearings for long life and ease of maintenance
- 250,000 L10 life bearings at maximum operating speed for long life
- Class F insulation with Class B temperature rise for long life
- Clamped rear bearings for longer bearing life
- Every motor tested over the entire operating range to validate performance

ClimateCraft's fan array products allow for fans to be turned off for safety, repair, and maintenance purposes. ClimateCraft's fan array products are not designed to turn individual fans on and off for the purpose of improving fan array efficiency, and ClimateCraft does not endorse turning individual fans on and off for the purpose of improving fan array efficiency. Any statement to the contrary is not supported by ClimateCraft.

