

# Pre-Test



Answer the following application questions based on this diagram.

## Multiple Choice

1. Variable Frequency Drives work with which of the following motors?
  - A. Single-Phase AC Motors
  - B. Three-Phase AC Motors
  - C. DC Motors
  - D. B and C are correct but not A.
  - E. A, B and C are all correct.
  
2. The setting for the speed of a VFD is known as which of the following:
  - A. Setpoint
  - B. Control Point
  - C. Reference
  - D. Speed Point
  - E. All of the above are common names for the speed setting.

See notes for questions 3-5.

3. Assuming no friction losses, if a VFD is operating a fan at 30Hz,  $\frac{1}{2}$  the full speed, which of the following is the correct power consumption?
  - A. 50% power consumption
  - B. 33% power consumption
  - C. 25% power consumption
  - D. 12.5% power consumption
  - E. 6.7% power consumption
  
4. Limits are very important for a VFD operating a fan. Which of the following are the most commonly used limits for a fan?
  - A. 18Hz Minimum speed; 60Hz Maximum speed
  - B. 6Hz Minimum speed; 60Hz Maximum speed
  - C. 18Hz Minimum speed; 90Hz Maximum speed
  - D. 6Hz Minimum speed; 90Hz Maximum speed
  - E. 0Hz Minimum speed; 120Hz Maximum speed
  
5. Inside the VFD, acceleration, is also known as which of the following:
  - A. Increase Speed
  - B. Increase Setpoint
  - C. Speed UP
  - D. Run-Up
  - E. Ramp-Up



## ***How did you do?***

Answers:

1. B. Three-Phase AC Motors
2. C. Reference
3. D. 12.5% power consumption
4. B. 6Hz Minimum speed; 60Hz Maximum speed
5. E. Ramp-Up

If you got 4 or 5 right – skip this lesson and go to lesson 2

If you got 3 or less right, please review this lesson.